2018/2019

College Catalog
2018/2019

Farmingdale State College
State University of New York

Updated: 9/1/2018

Farmingdale State College

A Message from Farmingdale State College President John S. Nader, PhD

Welcome to Farmingdale State College, the largest college of technology and applied science within the State University of New York with approximately 9,600 students, and a campus with a deep and rich tradition. In fact, Farmingdale is one of SUNY's fastest growmg institutions.

Originally founded in 1912, Farmingdale has become a baccalaureate college which is now offering its first Master's degree program. Our Schools of Business, Health Sciences, Engineering Technology, and Arts and Sciences are specifically designed to equip students with the skills and understanding needed to gain rewarding employment and to compete in the 21st century.

New construction and state-of-the-art facilities for academics, student activities, and athletics provide an exceptional setting for learning and student growth. Our "Powered by Optimism" culture reflects a thriving institution with robust enrollment, extraordinary faculty and caring support services to ensure a positive and memorable student experience. A beautiful 380-acre campus and convenient location in the heart of Long Island offer limitless opportunities for internships and other experiential education advantages.

Most impressive are the results of a Farmingdale education. FSC is a leader in applied learning and in building connections with leading employers on Long Island. Ninety percent of our graduates are gainfully employed within six months of graduation. We are among the most diverse campuses in the SUNY system. It's these results that have made Farmingdale an institution that is selective, inclusive and thriving.

Farmingdale is a place of opportunity, knowledge and scholarship. I'm happy to have you join us.

Sincerely,

John S. Nader

John S. Nader, PhD
President

Table of Contents

General Information

Farmingdale State College, State University of New York, is located on 380 acres in central Long Island. The College is easily accessible via the Long Island Expressway, the Northern and Southern State Parkways, and the Long Island Railroad.

Established in 1912 to serve a largely agrarian community, the College now meets the needs of the region and New York State through its emphasis on the applied sciences and high technology. As Long Island's first public college, Farmingdale offers a master's degree in Technology Management, the bachelor of science, bachelor of technology and a comprehensive base of associate degree programs, as well as a wide range of non-credit and certificate programs, minors, workshops and seminars.

Mission of the College

Dedicated to student success, Farmingdale State College delivers exceptional academic and applied learning outcomes through scholarship, research, and student engagement for Long Island and beyond. FSC's commitment to student-centered learning and inclusiveness prepares graduates to be exemplary citizens equipped to excel in a competitive, diverse, and technologically dynamic society.

In fulfilling its mission, the College shall:

■ be recognized as a center of excellence in teaching and applied learning

■ generate external resources to support the advancement of Farmingdale State College.

■ broaden the academic foundation to promote enrollment stability.

■ strengthen relationships with the Long Island community and surrounding areas.

■ increase the prominence of Farmingdale State College as a center of technological innovation.

■ promote and sustain an environment that is inclusive of all learners and embraces the diversity of culture, thought and perspectives.

■ upgrade and expand buildings, grounds and facilities to accommodate program innovation, expansion and student engagement.

You are invited to visit the College's website at www.farmingdale.edu for the most current and up-to-date information.

Farmingdale State College

FSC is fully accredited by the Middle States Commission on Higher Education. Approximately 9,600 students are in attendance.

Of the first-time, full-time baccalaureate degree seeking students that entered in fall 2011, 53% graduated with a bachelors degree within 150% of the normal completion time and 30% transferred out.

Of the first-time, full-time students that entered in fall 2011 seeking a certificate or associate degree, 52% graduated with a certificate, associate or baccalaureate degree within 150% of the normal completion time and 29% transferred out.

Under the Federal "Student Right-To-Know" Act, statistics are combined for certificates, associates and bachelor degrees. Of the total cohort of first-time full-time, degree seeking students who entered in fall 2011, 52% graduated with a certificate, associates or baccalaureate degree within 150% of the normal completion time and 29% transferred out. The four year average graduation rate is 48% and the four year average transfer-out rate is 30%.

Accreditation and State Education Department Registration

All curricula are registered by the New York State Education Department.

Accreditations:

Middle States Commission on Higher Education[1]

New York State Education Department

Engineering Technology Accreditation Commission of ABET[2]:

Architectural Engineering Technology (BS)
Computer Engineering Technology (BS)
Construction Management Engineering Technology (BS)
Electrical Engineering Technology (BS)
Manufacturing Engineering Technology (BS)
Mechanical Engineering Technology (BS)

Association of Technology, Management and Applied Engineering (ATMAE[3]):

Industrial Technology - Automotive Management Technology (BS)
Industrial Technology - Facility Management Technology (BS)
Automotive Technology (AAS)

National Accrediting Agency for Clinical Laboratory Sciences (NAACLS[4]):

Medical Technology (BS)

Commission on Collegiate Nursing Education (CCNE[5]):

Nursing (BS)

Nursing RN to BS Completion (BS)

American Dental Association, Commission on Dental Accreditation[6]:

Dental Hygiene - Entry-Level (BS)
Dental Hygiene - Entry-Level (AAS)

Aviation Accreditation Board International (AABI)[7]:

Aeronautical Science - Professional Pilot (BS)
Aviation Administration (BS)

Accreditation inquires may be directed to:

1. *Middle States Commission on Higher Education, 3624 Market Street, 2nd Floor West, Philadelphia, PA 19104, Telephone: (267) 284–5000 www.msche.org E-mail: info@msche.org*

2. *Engineering Technology Accreditation Commission of ABET, www.abet.org*

3. *Association of Technology, Management and Applied Engineering, 1390 Eisenhower Place, Ann Harbor, MI 48108, 734-677-0720 www.atmae.org*

4. *National Accrediting Agency for Clinical Laboratory Sciences, 5600 N. River Road, Suite 720, Rosemont, IL 60018-5119, 773-714-8880 www.naacls.org*

5. *Commission on Collegiate Nursing Education (CCNE), 655 K Street, NW, Suite 750, Washington, DC 20001, (202) 887-6791, Fax (202) 887-8476, www.aacn.nche.edu/ccne-accreditation*

6. *American Dental Association, Commission on Dental Accreditation, 211 East Chicago Avenue, Chicago, IL 60611-2678, 312-440-4653 www.ada.org/coda*

7. *Aviation Accreditation Board International, 3410 Skyway Drive, Auburn, AL 36830, Fax (334) 844-2432; www.aabi.aero*

Requests to review documents describing accreditation may be addressed to the Provost's Office, Horton Hall, Room 230, and further information can be found on the Provost's Office webpage.

Air Agency Certification

Federal Aviation Administration: *Aeronautical Science - Professional Pilot Inquiries may be directed to: Farmingdale Flight Standards District Office, 7150 Republic Airport, Suite 235, Farmingdale, NY 11735 631-755-1300, Ext. 262*

Academic Freedom

As cited in the SUNY Policies of the Board of Trustees 2017, Article XI, Title I, it is the policy of the University to maintain and encourage full freedom, within the law, of inquiry, teaching and research. In the exercise of this freedom faculty members may, without limitation, discuss their own subject in the classroom; they may not, however, claim as their right the privilege of discussing in their classroom controversial matter which has no relation to their subject. The principle of academic freedom shall be accompanied by a corresponding principle of responsibility. In their role as citizens, employees have the same freedoms as other citizens. However, in their extramural utterances employees have an obligation to indicate that they are not institutional spokespersons.

Equity and Diversity Farmingdale State College Statement of Compliance

Farmingdale State College is committed to fostering a diverse community of outstanding faculty, staff, and students, as well as ensuring equal educational opportunity, employment, and access to services, programs, and activities, without regard to an individual's race, color, national origin, religion, creed, age, disability, sex, gender identity, sexual orientation, familial status, pregnancy, predisposing genetic characteristics, military status,

domestic violence victim status, or criminal conviction. Employees, students, applicants or other members of the University community (including but not limited to vendors, visitors, and guests) may not be subjected to harassment that is prohibited by law, or treated adversely or retaliated against based upon a protected characteristic.

The College's policy is in accordance with federal and state laws and regulations prohibiting discrimination and harassment. These laws include the Americans with Disabilities Act (ADA), Section 504 of the Rehabilitation Act of 1973, Title IX of the Education Amendments of 1972, Title VII of the Civil Rights Act of 1964 as Amended by the Equal Employment Opportunity Act of 1972, and the New York State Human Rights Law. These laws prohibit discrimination and harassment, including sexual harassment and sexual violence.

Inquiries regarding the application of Title IX and other laws, regulations and policies prohibiting discrimination may be directed to Ms. Marybeth Incandela, Director of Human Resources. She can be located during regular business hours in Whtiman Hall, Room 260, telephone 631-420-2107. Inquiries may also be directed to the United States Department of Education's Office for Civil Rights, 32 Old Slip 26th Floor, New York, NY 10005-2500; Tel. (646) 428-3800; Email OCR.NewYork@ed.gov.

Americans with Disabilities

Farmingdale State College is committed to ensuring that all qualified individuals with disabilities have the opportunity to take part in educational and employment programs and services on an equal basis. The aim is to provide this opportunity in an integrated setting that fosters independence and meets the guidelines of the Americans with Disabilities Act (ADA) and the Rehabilitation Act of 1973.

Sexual Harassment Response and Prevention Policy

The President and the College community will not tolerate sexual harassment or sexual assault nor condone it in any form, and are committed to providing and preserving an atmosphere free from harassment of any manner. Sexual harassment is a form of sex discrimination which is unlawful in the workplace under Title VII of the Civil Rights Act of 1964, as amended, and the New York State Human Rights Law. Under Title IX of the Educational Amendments of 1972, sexual harassment is also prohibited in the provision of educational services and protects students and employees from sexual harassment.

Sexual harassment can occur between males and females, or between persons of the same sex. Sexual harassment will not be tolerated at SUNY. The University has implemented measures to address and prevent sexual harassment and is taking additional affirmative steps to increase awareness of, and sensitivity to, all forms of sexual harassment in order to maintain a workplace and learning environment free of its harmful effects.

In accordance with applicable law, sexual harassment is generally described as unwelcome sexual advances, requests for sexual favors or other verbal or physical conduct of a sexual nature when:

■ Submission to such conduct is made either explicitly or implicitly a term or condition of employment or academic benefit; or

■ Submission to or rejection of the conduct is used as the basis for an employment or academic decision affecting the person rejecting or submitting to the conduct; or

■ The conduct has the purpose or effect of unreasonably interfering with an affected person's work or academic performance, or creating an intimidating, hostile or offensive work or learning environment.

Sexual harassment can include physical touching, verbal comments, non-verbal conduct such as leering or inappropriate written or electronic communications, or a combination of these things. Examples of sexual harassment may include, but are not limited to:

■ Seeking sexual favors or a sexual relationship in return for the promise of a favorable grade or academic opportunity;

■ Conditioning an employment-related action (such as hiring, promotion, salary increase, or performance appraisal) on a sexual favor or relationship; or

■ Intentional and undesired physical contact, sexually explicit language or writing, lewd pictures or notes, and other forms of sexually offensive conduct by individuals in positions of authority, co-workers or student peers, that unreasonably interferes with the ability of a person to perform his or her employment or academic responsibilities.

Sexual harassment is considered a form of employee and student misconduct which may lead to disciplinary action.

Sexual violence is a form of sexual harassment prohibited by Title IX. Title IX also prohibits gender-based harassment, which may include acts of verbal, nonverbal, or physical aggression, intimidation, or hostility based on sex or sex-stereotyping, even if those acts do not involve conduct of a sexual nature.

While there exists an atmosphere of freedom of expression, it must always be in conjunction with a responsibility to observe the rights of one another.

In such a setting, there is no place for conduct that diminishes, uses, or abuses another person. For these reasons, harassment of any kind is unacceptable at the College.

Retaliation against a person who files a complaint, serves as a witness, or assists or participates in any manner in this procedure is strictly prohibited and may result in disciplinary action. Retaliation is an adverse action taken against an individual as a result of complaining about unlawful discrimination or harassment, exercising a legal right, and/or participating in a complaint investigation as a third-party witness. Participants who experience retaliation should contact Ms. Marybeth Incandela, Director of Human Resources, Whtiman Hall, Room 260, telephone 631-420-2107.

A document on Policy and Procedures may be obtained at New Student and Transfer Orientations, or from the Department Chairs, Directors, Deans, Counselors or the Office of Diversity, Equity and Inclusion.

Student Concerns, Complaints and Suggestions

Students have several mechanisms through which they may express concerns, complaints and suggestions including but not limited to procedures for complaints regarding sexual harassment, sexual misconduct, unlawful discrimination, bias crimes, Family Educational Rights and Privacy Act (FERPA) violations and grade grievances. Information and links to reporting procedures for complaints in these categories are provided on a Farmingdale State College Student Concerns,

Complaints and Suggestions webpage. For concerns, complaints or suggestions that do not fall into one of the listed categories, the webpage leads to an electronic Farmingdale State College Student Concerns & Suggestion Box where students may register any issues and receive an initial reply within a maximum of five business days.

Campus Safety Report

The Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act is a landmark federal law, originally known as the Campus Security Act. It requires colleges and universities across the United States to disclose information about crime on and around their campuses.

In compliance with this federal law, Farmingdale State College provides reports and statistics about campus safety and security programs, incidents of crime on campus, and information regarding registered sex offenders. Copies of the campus safety and crime reports are available on the University Police webpage and at the Headquarters of the New York State University Police at Farmingdale (University Police).

Bias Crimes Prevention

Hate Crimes and the Law

It is a Farmingdale College policy mandate to protect all members of the Farmingdale College community by preventing and prosecuting bias or hate crimes that occur within the campus's jurisdiction.

Hate crimes, also called bias crimes or bias related crimes, are criminal activity motivated by the perpetrator's bias or attitude against an individual victim or group based on perceived or actual personal characteristics, such as race, color, national origin, religion, creed, age, disability, sex, gender identity, sexual orientation, familial status, pregnancy, predisposing genetic characteristics, military status, domestic violence victim status, or criminal conviction. Hate/bias crimes have received renewed attention in recent years, particularly since the passage of the federal Hate/Bias Crime Reporting Act of 1990 and the New York State Hate Crimes Act of 2000 (Penal Law Article 485). Copies of the New York law are available from University Police headquarters.

Penalties for bias-related crimes are very serious and range from fines to imprisonment for lengthy periods, depending on the nature of the underlying criminal offense, the use of violence or previous convictions of the offender. Perpetrators who are students will also be subject to campus disciplinary procedures where sanctions including dismissal are possible.

In addition to preventing and prosecuting hate/bias crimes, Farmingdale State College Policy also assist in addressing bias-related activities that do not rise to the level of a crime. These activities, referred to as bias incidents and defined by the University as acts of bigotry, harassment, or intimidation directed at a member or group within the Farmingdale community based on such as race, color, national origin, religion, creed, age, disability, sex, gender identity, sexual orientation, familial status, pregnancy, predisposing genetic characteristics, military status, domestic violence victim status, or criminal conviction, may be addressed through the State University's Discrimination Complaint Procedure or the campus conduct code. Bias incidents can be reported to University Police as well as to AA/EEO Office.

If you are a victim of, or witness to, a hate/bias crime on campus, report it to University Police by calling x2111 in an emergency, using a Blue Light or other campus emergency telephone or stopping by the Dean of Students Office. University Police will investigate and follow the appropriate adjudication procedures.

Victims of bias crime or bias incidents can avail themselves of counseling and support services from the campus as follows: Campus Mental Health Services in Sinclair Hall or by calling 631-420-2006.

If you are sexually or otherwise assaulted on campus:

- Get to a safe place as soon as you can.
- Try to preserve all physical evidence; do not bathe, douche, or change your clothes.
- Contact University Police immediately (call 911 in an emergency, or use a Blue Light or other campus emergency phone), at 631-420-2111.

Remember, assaults – sexual or otherwise – are crimes; they are not the victims' fault. Victims have the right to pursue adjudication of crimes that occur on the Farmingdale State College campus through criminal courts and/or through the University's internal disciplinary process (under the Campus Code of Conduct). University Police are trained to assist with prosecution in both systems.

Campus Safety Advisory Committee

The Campus Personal Safety Advisory Committee was established to provide advice and written reports on issues relating to personal safety on the campus, as well as to perform requirements of the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act. Additionally, it is a purpose of the committee to inform the campus community of prevention programs, intervention programs, awareness programs, and to ensure that all safety policies and regulations are being adhered to by the College such that there exists a safe work and learning environment. The committee is comprised by members of all campus constituencies and, in accordance with State law and State University regulations, must have as its membership a numerical majority being female.

To bring concerns to this committee, you may either ask your student government representative, faculty representative, union representative, or the Chief of University Police as Chair of the committee to represent your views, concerns and/or needs.

Environmental Health and Safety Office

The Office of Environmental Health and Safety (EH&S) at Farmingdale State College supports the mission of the State University of New York (SUNY) System by promoting the principles of safety, environmental compliance, and risk management and assists the College in achieving these outcomes through education, hazard assessment, exposure mitigation, and the responsible management of hazardous materials.

Farmingdale State College is committed to the safety and well-being of our employees, students and visitors. We will ensure that policies and practices are developed and adopted that will best protect our campus community, our facilities and our resources.

The ultimate goal of EH&S is to provide guidance to every manager, supervisor, faculty or staff member, and student of Farmingdale State College so that a safe, healthful and environmentally sustainable learning environment is achieved and maintained.

Notification of Rights Under FERPA For Postsecondary Institutions

In accordance with the provisions of the Family Educational Rights and Privacy Act (FERPA) (20 USC 1232g; 34 CFR Part 99), Farmingdale State College has adopted the following regulations to protect the privacy rights of its students. Copies of this statement as well as the law are available upon request in the Office of the Registrar.

Disclosure of Education Records

Farmingdale State College will disclose information from a student's education record only with the written or electronic consent of the student. At its discretion, Farmingdale State College may release information without consent, under the following circumstances:

- To school officials who have a legitimate educational interest in the records;
- Upon request to officials of another school in which a student seeks or intends to enroll or where the student has already enrolled;
- To certain federal, state, SUNY, and local education officials in connection with certain federal or state supported education programs;
- In connection with a student's request for or receipt of financial aid, as necessary to determine the eligibility, amount, or conditions of that aid;
- If required by a state law concerning the juvenile justice system which law requires disclosure and which was adopted before November 19, 1974.
- To organizations conducting certain studies/research for or on behalf of the College;
- To accrediting organizations;
- To comply with a judicial order or a lawfully issued subpoena or IRS summons after making a reasonable effort to notify the student in advance;
- To appropriate parties in a health and/or safety emergency;
- Where the student and SUNY are engaged in litigation;
- Where the information to be disclosed is that designated as "directory information";
- To the victim of a student determined by the College to be an alleged perpetrator of a crime of violence or non-forcible sex offense; the final results reached on or after October 7, 1998 in a disciplinary proceeding involving that charge;
- To the parents of a student under the age of 21; information that the college has determined that the student has committed a disciplinary violation with respect to use or possession of alcohol or a controlled substance.
- To anyone if the disclosure is the final results of a disciplinary proceeding involving a crime of violence or nonforcible sex offense and the student was found responsible.

Directory Information

Farmingdale State College designates the following items as Directory Information:

- Student's Name
- Address
- Telephone listing
- Electronic mail address
- Photograph
- Degrees, honors and awards received
- Date and place of birth
- Major field of study
- Dates of enrollment
- Grade level
- The most recent educational agency or institution attended
- Participation in officially recognized activities and sports
- Weight and height of member of athletic teams

The College may disclose any of these items without prior written consent of the student. Students may opt out of the release of this information by completing the FERPA Disclosure Form

Right to File a Complaint

Students are afforded the right to file a complaint with the US Department of Education concerning alleged failures by Farmingdale State College to comply with the requirements of FERPA. The name and address of the office administering FERPA is:

Family Policy Compliance Office
US Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-4605

For more information about FERPA, please visit www.farmingdale.edu/registrar/ferpa.shtml

Notice for Directory Information

The Family Educational Rights and Privacy Act (FERPA), a federal law, requires that Farmingdale State College, with certain exceptions, obtain your written consent prior to the disclosure of personally identifiable information from your education records. However, Farmingdale State College may disclose appropriately designated "directory information" without written consent, unless you have advised the College to the contrary in accordance with College procedures. The primary purpose of directory information is to allow Farmingdale State College to include this type of information from your education records in certain publications. Examples include:

- A playbill, showing role in a drama production;
- The annual yearbook;
- Honor roll or other recognition lists;
- Graduation programs; and
- Sports activity sheets, such as for wrestling, showing weight and height of team members.

Parental Notification Policy

In October 1998, Congress passed the Higher Education Amendment which permits post-secondary institutions to disclose to parents or legal guardians of students under 21, without their consent, information regarding the student's violation of any federal, state, or local law, or any rule or policy of the institution governing the use or possession of alcohol or a controlled substance. The Office of Student Life or the Office of the Dean of Students normally informs parents of any alcohol or drug violation involving students under 21.

Public Officers Law, Article 6, §§ 84–90 Freedom of Information Law

Farmingdale State College complies fully with the New York State Freedom of Information Law, which was enacted to ensure public accountability of state agencies while protecting individuals against unwarranted invasions of personal privacy. The regulations are posted on the College's website, at the Human Resources Office and at the campus library in Greenley Hall. Freedom of Information Law (FOIL) requests are to be made in writing to the campus Records Access Officer:

Records Access Officer
Farmingdale State College
2350 Broadhollow Road
Farmingdale, New York 11735
jill.silvestro@farmingdale.edu

The request must reasonably describe the record or records that are being requested, and be as specific as possible (e.g., indicate dates, titles, specific files and designations, as appropriate). Reasonable fees may be charged for duplication of materials.

SUNY policy requires that the College post conspicuously:

- Locations where records are made available. Individuals requesting records of Farmingdale State College are directed to contact the Records Access Officer.
- The name or title and business address of the records access officer and FOIL appeals officer. The Records Access Officer may be contacted by telephone at (631) 420-2728. Appeals are to be directed to: FOIL Appeals Officer, State University of New York, State University Plaza, Albany, New York 12246

Electronic Devices in the Classroom

The College is committed to educationally sound uses of technology in the classroom and to preventing technology from becoming disruptive to the learning environment. The course instructor decides when, if, and what type of technology is to be used during class. Any use of technology that degrades the learning environment, promotes dishonesty, or is used for illegal activities is prohibited.

Electronic devices and illegal activities: Activities involving electronic devices that violate laws, such as those related to intellectual property rights or copyrights, invasions of privacy, or sexual or other forms of harassment are prohibited. Examples include using a camera phone to videotape a lecture or meeting or taking photos without the participants' written permission. It is advisable for instructors to anticipate that such issues with wireless communications and electronic devices may arise and publish restrictions in their course syllabi.

Guidelines for the Use of Digital Material: Music, Video, Pictures, Software and Games

The Digital Millennium Copyright Act of 1998 ("DMCA"), which addresses copyright issues regarding digital materials, was signed into law by the President on October 28, 1998. One of the provisions of the DMCA is to limit the liability of educational institutions for damages due to copyright infringement by members of their community. The College complies with all DMCA's requirements and requires that:

- all members of the College community must follow the College's Copyright Guidelines for digital material
- all members of the College community must adhere to the College's Acceptable Use Policy

Both policies are available on the Farmingdale website at www.farmingdale.edu/information-technology/pdf/digitalmediaguidelines.pdf

Use of College Email

Information Technology (IT) has assigned all students and staff an official Farmingdale email address. It is to this official address that the College will send email communications.

The College has the right to expect that such communications will be received and read in a timely fashion. Official email communications are intended to meet only the academic and administrative needs of the campus community.

Students and staff are obliged to check their email periodically. Any questions regarding the set up or access of the Farmingdale email account should be directed by email to helpdesk@farmingdale.edu or by calling (631) 420-2754.

Students seeking to contact College faculty, staff and/or offices via email must use their Farmingdale State College email address. Emails coming from private email providers may not be answered if doing so violates laws pertaining to the privacy of personal information.

Consumer Information

Farmingdale State College publishes information and data on a wide variety of consumer information topics, including (but not limited to) Security and Fire Safety, Privacy of Student Records (FERPA), Articulation Agreements, etc. Complete information can be obtained at the following link - www.farmingdale.edu/consumer-information

Farmingdale State College Academic Calendar 2018 - 2019

Fall Session   2018

August 29–30 (Wednesday – Thursday)... Last Days for Registration Activities
August 30 (Thursday)...Faculty and Staff Convocation (9:30am)
August 31 (Friday) .... Classes begin
September 3 (Monday) ....No Classes (Labor Day)
September 6 (Thursday) ....*Last day for schedule changes
September 8 (Saturday)...Regular Saturday classes begin
September 15 (Saturday)..Accelerated Saturday classes begin
October 8 (Monday)... Columbus Day - Classes in Session
October 9 (Tuesday) ....PM Governance Meeting (1pm) – No classes beginning after 12 noon
October 11 (Thursday) ....Last day to submit a grade OR grade extension for incompletes (for Spring semester or Summer)
November 1 (Thursday) ....Last day to withdraw
November 4 (Sunday) .... Fall Open House
November 6 (Tuesday) .... Election Day – Classes in Session
November 12 (Monday)... Veterans' Day Observed – Classes in Session
November 21 – 24 (Wednesday – Saturday) ....No Classes (Thanksgiving Break)
December 1 (Saturday)..Accelerated Saturday classes end (Final Exam)
December 13 (Thursday) ....Last Day of Classes
December 14 (Friday)..** Study Day/Make-up Day
December 15 (Saturday)... Last Day for Regular Saturday Classes
December 17 – 21 (Monday – Friday) ....Final Exam/Evaluation Period
GRADES DUE 72 HOURS AFTER FINAL EXAM
December 21 (Friday)..Semester Ends
December 22 (Saturday)..Winter Commencement
December 23 (Sunday) snow date ....Winter Commencement

Intersession   2019

January 2 (Wednesday) ....Classes begin
January 3 (Thursday) ....*Last day for schedule changes
January 8 (Tuesday)..Last day to withdraw
January 17 (Thursday) .... Classes end
GRADES DUE 72 HOURS AFTER FINAL EXAM

Spring   2019

January 16 – 17 (Wednesday – Thursday)... Last Days for Registration Activities
January 18 (Friday)... Classes begin
January 21 (Monday) ....No Classes
January 24 (Thursday) ....*Last day for schedule changes
January 26 (Saturday)..Regular Saturday classes begins
February 2 (Saturday) ....Accelerated Saturday classes begin
February 18 (Monday)..Presidents Day – Classes in session
February 28 (Thursday).......Last day to submit a grade OR grade extension for incompletes (for Fall semester or Intersession)
March 1 (Friday) ....PM Governance Meeting (1pm) – No classes beginning after 12 noon
March 18-23 (Monday – Saturday) ....No Classes (Spring Break)
March 28 (Thursday) ....Last day to withdraw
April 5 (Friday) .... AM Governance Meeting (9:30am) – No classes beginning before 12 noon
April 20 (Saturday)...Accelerated Saturday classes end (Final Exam)
April 27 (Saturday)...No Classes
May 5 (Sunday) .... Spring Open House
May 6 (Monday)...Last day of classes
May 7 – 13 (Tuesday – Monday) ....Final Exam/Evaluation Period
GRADES DUE 72 HOURS AFTER FINAL EXAM
May 13 (Monday)...Semester Ends
May 21 (Tuesday) ....Commencement
(additional details, including the scheduling of Schools graduating, will be released at a later date)

*For Financial Refund schedule, refer to the Student Accounts Webpage.
**December 14th is designated as a campus Study Day/Make-up Day. Any study day may be utilized as a campus
  make-up day at the discretion of the campus administration. An individual make-up day may be utilized at the discretion of
  an individual instructor.

-Accelerated Saturday classes meet 11 times and meet for 68 minutes for each hour of instruction.
-Saturday classes meet 14 times during the semester and meet for 54 minutes for each hour of instruction.
-Special arrangements must be made between a student and instructor for religious observances. Special arrangements
  must be made between a faculty or staff member and his/her department chair or supervisor for religious observances.

Graduate Instructional Program

The New York State Education Department has authorized the State University of New York at Farmingdale to award the Master of Science degree in the following program. Refer to blue section of the catalog for information specific to the graduate program.

Program	Degree Granted	Hegis Code †
Technology Management	MS	0599

Undergraduate Instructional Programs

Enrollment in other than registered or otherwise approved programs may jeopardize a student's eligibility for certain student aid awards. The following undergraduate programs have been registered by the State Education Department for the State University of New York at Farmingdale.

The Baccalaureate Degree

The Bachelor of Science and Bachelor of Technology degrees accept eligible freshmen and transfer students. Graduates of all BS and BTech programs are qualified for gainful and rewarding careers or to pursue their education at the graduate level.

The Associate Degree

The Associate in Arts (AA) and the Associate in Science (AS) degrees are offered as the first two years of a traditional baccalaureate program.

The Associate in Applied Science (AAS) programs were originally intended to be "career" rather than "transfer" programs. However, growing numbers of students continue their education after completing one of the career programs primarily oriented to a specific occupation. Anyone considering enrollment in an AAS degree program who is concerned about transfer potential should see an admissions counselor.

The New York State Education Department has authorized the State University of New York at Farmingdale to award degrees in the following programs.

Bachelor Degrees

Program	Degree Granted	Hegis Code †
Aeronautical Science – Professional Pilot	BS	0510
Applied Economics	BS	2204
Applied Mathematics	BS	1703
Applied Psychology	BS	2008
Architectural Engineering Technology	BS	0925
Aviation Administration	BS	0599
Bioscience	BS	0499
Business Analytics	BS	0503
Business Management	BS	0506
Computer Engineering Technology	BS	0925
Computer Programming and Information Systems	BS	0799
Computer Security Technology	BS	0925
Construction Management Engineering Technology	BS	0925
Criminal Justice: Law Enforcement Technology	BS	2105
Dental Hygiene - Completion	BS	1213
Dental Hygiene - Entry Level	BS	1213

Bachelor Degrees *(continued)*

Program	Degree Granted	Hegis Code †
Electrical Engineering Technology	BS	0925
Geographic Information Systems	BS	2206
Global Business Management	BS	0513
Horticultural Technology Management	BTech	0599
Industrial Technology – Automotive Management Technology	BS	0925
Facility Management Technology	BS	0925
Interaction Design	BTech	1009
Manufacturing Engineering Technology	BS	0925
Mechanical Engineering Technology	BS	0925
Medical Technology	BS	1223
Nursing	BS	1203
Nursing RN to BS Degree Completion	BS	1203
Professional Communications	BS	0601
Science, Technology, & Society	BS	4904
Security Systems	BS	2105
Sport Management	BS	0182
Software Technology	BS	0799
Telecommunications Technology	BS	0925
Visual Communications: Art & Graphic Design	BTech	0699

Associate Degrees

Program	Degree Granted	Hegis Code †
Automotive Technology	AAS	5306
Criminal Justice – Law Enforcement	AS	5505
Dental Hygiene - Entry Level	AAS	5203
Landscape Development	AAS	5402
Liberal Arts and Sciences	AA	5649
Mechanical Engineering Technology	AAS	5301
Ornamental Horticulture	AAS	5402

† Higher Education General Information Survey (Not to be confused with curriculum code required on SUNY application)

MS- Master of Science
BS – Bachelor of Science
BTech – Bachelor of Technology
AA – Associate in Arts
AS – Associate in Science
AAS – Associate in Applied Science

Certificate Programs

Program	
Accounting	5002
Advanced Programming*	5101
Computer Information Systems	5101
Computer Systems Technology	5101
Health Studies	5299
International Business*	5004
Management	5004
Manufacturing Methods	5315
Marketing	5004
Ornamental Horticulture	5402
Sciences for the Health Professions	5299

*local certificate

To review the Gainful Employment Disclosures for certificate programs please visit www.farmingdale.edu/academics

Each non-local certificate program is approved by the State Education Department and is a comprehensive sequence of courses in a specialized field. For prerequisites and college-level courses in the recommended sequence of study, refer to the certificate program outline under the sponsoring curriculum department.

Fields of Study

CURRICULUM/DISCIPLINE	DEPARTMENT	DEGREE/MINOR
Air Force ROTC	Air Force ROTC	Minor
Anthropology	Sociology & Anthropology Department	Minor
Applied Economics	Economics Department	Bachelor of Science
Applied Mathematics	Mathematics Department	
Applied Mathematics		Bachelor of Science
Applied Mathematics		Minor
Applied Psychology	Psychology Department	Bachelor of Science
Arabic	Modern Languages Department	n/a
Architecture and Construction Management:	Architecture and Construction Management Department	
Architectural Engineering Technology		Bachelor of Science
Construction Management Engineering Technology		Bachelor of Science
Art	See Visual Communications	
Asian Studies	History, Politics, and Geography Department	Minor
Automotive Technology:	Automotive Technology Department	
Industrial Technology: Automotive Management Technology		Bachelor of Science
Automotive Technology		Assoc. in Applied Science
Aviation:	Aviation Department	
Aeronautical Science: Professional Pilot		Bachelor of Science
Aviation Administration		Bachelor of Science
Aviation Administration		Minor
Aviation Flight		Minor
Biology:	Biology Department	
Bioscience		Bachelor of Science
Sciences for the Health Professions		Certificate
Biology		Minor
Business:	Business Management Department	
Business Management		Bachelor of Science
Business Analytics		Bachelor of Science
Global Business Management		Bachelor of Science
Accounting		Certificate
International Business		Local Certificate
Management		Certificate
Marketing		Certificate
Business Management		Minor
Legal Studies		Minor
Organizational Leadership		Minor
Chemistry	Chemistry Department	Minor
Chinese	Modern Languages Department	n/a
Computer Engineering Technology	See Electrical/Computer Engineering Technology	
Computer Programs and Information Systems	Computer Systems Department	
Computer Programming & Information Systems		Bachelor of Science
Computer Information Systems		Certificate
Computer Systems Technology		Certificate
Advanced Programming		Local Certificate
Computer Networking		Minor
Computer Programming & Information Systems		Minor
Management Information Systems		Minor
Mobile Applications Development		Minor
Web Development		Minor
Construction Management	See Architecture and Construction Management	
Criminal Justice	Department of Criminal Justice	
Criminal Justice – Law Enforcement		Associate in Science
Dental Hygiene:	Dental Hygiene Department	
Dental Hygiene - Completion		Bachelor of Science
Dental Hygiene - Entry Level		Bachelor of Science
Dental Hygiene - Entry Level		Assoc. in Applied Science
Health Studies		Certificate
Economics	Economincs Department	Assoc. in Applied Science
Electrical/Computer Engineering Technology:	Electrical/Computer Engineering Technology Department	
Computer Engineering Technology		Bachelor of Science
Electrical Engineering Technology		Bachelor of Science
Telecommunications Technology		Bachelor of Science
English	English/Humanities Department	
English Literature		Minor

CURRICULUM/DISCIPLINE	DEPARTMENT	DEGREE/MINOR
Facility Management Technology	See Mechanical Engineering Technology Department	
French	Modern Languages Department	n/a
Geographic Information Systems	History, Politics, and Geography Department	Bachelor of Science
Geography	History, Politics, and Geography Department	Minor
German	Modern Languages Department	n/a
Health Studies	See Dental Hygiene	
Graphic Design	See Visual Communications	
History	History, Politics, and Geography Department	Minor
Horticulture:	Urban Horticulture and Design	
Horticultural Technology Management		Bachelor of Technology
General Horticulture		Assoc. in Applied Science
Landscape Development.		Assoc. in Applied Science
Ornamental Horticulture.		Certificate
Ornamental Horticulture		Minor
Humanities	English/Humanities Department	n/a
Industrial Technology:		
Automotive Management Technology	See Automotive Technology Department	
Facility Management Technology	See Mechanical Engineering Technology Department	
Italian	Modern Languages Department	
Italian Studies		Minor
Latin American Studies	Modern Languages Department	Minor
Law Enforcement Technology	See Security Systems and Law Enforcement	
Liberal Arts and Sciences	Liberal Arts and Sciences Department	Associate in Art
Mathematics	See Applied Mathematics	
Mechanical Engineering Technology:	Mechanical Engineering Technology Department	
Computing Graphics		n/a
Facility Management Technology		Bachelor of Science
Manufacturing Engineering Technology		Bachelor of Science
Mechanical Engineering Technology		Bachelor of Science
Mechanical Engineering Technology		Assoc. in Applied Science
Manufacturing Methods		Certificate
Medical Laboratory Technology:	Medical Laboratory Technology Department	
Medical Technology		Bachelor of Science
Middle Eastern and Islamic Studies	History, Politics, and Geography Department	Minor
Modern Languages	Modern Languages Department	n/a
Music	English/Humanities Department	n/a
Nursing:	Nursing Department	
Nursing		Bachelor of Science
Ornamental Horticulture	See Horticulture	
Philosophy	English/Humanities Department	n/a
Physical Science	Physics Department	n/a
Physics	Physics Department	Minor
Politics	History, Politics, and Geography Department	Minor
Professional Communications	Professional Communications Department	Bachelor of Science
Psychology	See Applied Psychology	
Science, Technology, and Society	Science, Technology, and Society Department	Bachelor of Science
Security Systems	Security Systems and Law Enforcement Technology Department	
Computer Security Technology		Bachelor of Science
Criminal Justice: Law Enforcement Technology		Bachelor of Science
Security Systems		Bachelor of Science
Software Technology		Bachelor of Science
Sociology	Sociology and Anthropology Department	Minor
Spanish	Modern Languages Department	n/a
Speech	English/Humanities Department	n/a
Sport Management:	Sport Management Department	
Sport Management		Bachelor of Science
Sport Management		Minor
Technology Management	School of Engineering	Master of Science
Telecommunications Technology	Electrical Engineering Department	Bachelor of Science
Theater	English/Humanities Department	n/a
Visual Communications: Art & Graphic Design	Visual Communications Department	
Visual Communications: Art & Graphic Design		Bachelor of Technology
Interaction Design		Bachelor of Technology
Art & Graphic Design		Minor
Women, Gender, and Sexuality Studies	Sociology and Anthropology Department	Minor

Admission Information

Admission to this College and to all other units of the State University of New York is based on the academic qualifications of the respective applicants, and is made without regard to the race, color, creed, age, sex, sexual orientation, national origin, disability, handicap or veteran status of an individual.

Matriculation / Non-Matriculation

A matriculated student is one who has been officially accepted into a degree or certificate program and is making satisfactory progress. A non-matriculated student is one who has not been accepted into a degree or certificate program.

New York State Residents/Non-residents of New York State

A resident of New York State is entitled to pay the in-state tuition rate. To qualify for the in-state tuition rate, a student must have resided in the State of New York for a period of at least one year immediately preceding the time of his/her registration at Farmingdale State College. All other persons shall be considered out-of-state residents and will pay the out-of-state tuition rate. In cases of discrepancy, a student may be asked to supply documentation such as place of voter registration, New York State tax returns or driver's license, or telephone/electric bills as proof of principal residence.

Occasionally, extenuating circumstances warrant special consideration. Please call 631-420-2560 for further information.

Health Requirements

All full-time and/or matriculated students are required to submit a Student Information, Medical History, and Physical Report Form to the Health and Wellness Center.

Admission and Enrollment of Persons with Prior Felony Convictions

State University of New York (SUNY) policy prohibits Farmingdale State admissions application from inquiring into an applicant's prior criminal history. After acceptance, the College shall inquire if the student previously has been convicted of a felony if such individual seeks campus housing or participation in clinical or field experiences, internships or study abroad programs. The information required to be disclosed under SUNY policy regarding such felony convictions shall be reviewed by a standing campus committee consistent with the legal standards articulated in New York State Corrections Law. Students who have previously been convicted of a felony are advised that their prior criminal history may impede their ability to complete the requirements of certain academic programs and/or to meet licensure requirements for certain professions. Students who have concerns about such matters are advised to contact the Dean of Students.

Admission of Persons with Disciplinary Dismissals

State University of New York (SUNY) policy requires applicants for admission to report whether they have been dismissed from an institution of higher education for disciplinary reasons. Applications from such candidates are reviewed by a campus committee whose purpose is to decide whether an applicant with a disciplinary dismissal from an institution of higher education should be admitted. After review of all information the committee will determine whether to deny admission, admit or admit with certain conditions.

Admission to Undergraduate Degree Programs

(see Graduate section for Graduate program information)

General Admission Requirements

Note: In addition to the General Admission Requirements listed, specific high school level courses are required for each major. Please refer to details found later in this section. Furthermore, for admission to programs in Dental Hygiene, Medical Technology, Nursing and Aeronautical Science-Professional Pilot, applicants must meet specific standards which can also be found later in this section.

1. Applicants must be graduates of approved four-year high schools, or hold a General Equivalency Diploma or its equivalent.

2. Applicants applying on the basis of their high school record must have satisfactorily completed the specific course requirements noted under each program's listing. Additional courses may be required as deemed necessary by each academic department.

3. The College requires all first time college applicants to take one of two entrance examinations: the Scholastic Assessment Test (SAT) or the American College Testing Program. When submitted, scores from these examinations may be considered in selecting students for admission as well as for guidance purposes. Additional tests may, at times, be required.

4. Students transferring to the college should have minimum cumulative grade point average of 2.5 or above and be in good standing at their prior institution. Contact the Admissions Office for requirements by program as some have higher minimum grade point average requirements. The College requires high school transcripts and SAT/ACT exam scores of applicants who have not completed 24 credits. Proof of high school graduation is required for ALL transfer students who do not possess a college degree.

5. Any student graduating with a high school transcript or General Equivalency Diploma (GED) prior to June 1998 will not have to submit SAT/ACT test scores.

Application Procedures – Undergraduate Degree Programs

All United States citizens and permanent residents applying to a degree program must follow the State University of New York application procedure.

1. The application for admission is available at www.suny.edu/student or www.commonapp.org.

2. Transcripts and other printed materials may be sent to the Admissions Office at the following address:

   Farmingdale State College
   ATTN: Admissions Processing
   279 Broadway, Suite A, Albany, NY 12204
   631-420-2200 Phone
   631-420-2633 Fax
   admissions@farmingdale.edu

   a. For high school seniors, an official copy of the high school transcript should be sent directly to the Admissions Office. Final high school transcripts must be submitted for all enrolled students after graduation. Also, SAT (code 2526) or ACT (code 2918) exam scores should be sent directly to the Admissions Office.

b. Individuals no longer in high school should request that an official final high school transcript be sent by the guidance office at the high school from which they graduated, or attended, directly to the address above.

3. Individuals who have attended any other college must have official high school and college transcripts sent directly to the Admissions Processing at the address listed above.

4. Holders of a High School Equivalency Diploma (GED) must send an official copy of test scores and diploma directly to the Admissions Processing at the address listed above.

5. Applicants are strongly encouraged to complete the SUNY supplemental application and are encouraged to include essays, letters of recommendation, and any other information that may be of use to the Admissions Committee. Applicants may be requested to appear for a personal interview during the admissions process.

6. Home schooled students must provide documentation of successful completion of the high school home school program. This can be done by providing an official notation of completion from the local school district; providing the official score report of the GED or TASC examination; providing a college transcript indicating the student has taken and successfully completed 24 college credits in accordance with the NYS Education Commissioner's Regulations. **Important Note for NYS Residents:** Residents of New York State MAY NOT use a high school program of correspondence study to meet the requirements for high school in New York State (NYSED-3/20/2008).

Application Procedures – Certificate Programs

Admission to certificate programs is based upon proof of graduation from an accredited four-year high school or successful completion of a General Equivalency Diploma or its equivalent. Certain certificate programs may also have specific prerequisite course requirements. Contact the Admissions Office for further information.

Application Procedures – Non-Degree Undergraduate Courses

Applications for non-degree/non-matriculated undergraduate registrations are available at www.farmingdale.edu/admissions. A completed application along with a non-refundable $50 application fee is required. A verifiable record from high school and/or prior colleges attended will be required for proof of completion of pre-requisite courses. Contact the Admissions Office for further information. **NOTE: Non-matriculated students are NOT ELIGIBLE to receive any Federal or State Financial Aid**.

Matriculated vs. Non-matriculated Status	Matriculated	Non-matriculated
Eligible for Financial Aid (Federal & State)	Yes	No
Priority Registration	Yes	No
Eligible for a Degree	Yes	No
Receive Academic Advisement	Yes	Yes

1. Non-Matriculated students who wish to continue taking courses with non-matriculated status after their initial term at Farmingdale are required to submit official high school and/or college transcripts to the Admissions Office in order to maintain registration privileges for future semesters.

2. Non-Matriculated students may earn a maximum of 32 credits, after which they must seek admission to a program or request permission from the Non-Matriculated Student Academic Advisor to remain as a non-matriculated student. Failure to do so will prevent the student from registering for further courses.

3. Non-Matriculated students are limited to 5 courses (including associated labs) for a maximum of 16 credits per semester. Students seeking to take more than 16 credits must meet with the Academic Advisor for Non-Matriculated Students and apply for permission to do so.

4. Non-Matriculated students must maintain the same academic standards as matriculated students, i.e., a grade point average of 2.0 or above to remain in good academic standing (a GPA of 2.0 will not ensure admission to a student's preferred program). If suspended from the College, the student may appeal for academic reinstatement from the Non-Matriculated Student Academic Advisor who will process the appeal through the Provost's Office.

Transfer Students

Transfer students are considered for admission to programs at Farmingdale State College based upon their level of achievement in coursework undertaken at other colleges and universities, as well as their high school academic record in some instances.

All applicants admitted to the college as transfer students must supply official transcripts for each college previously attended before the transfer credit evaluation process can begin. Please refer to the section on Academic Information concerning transfer credit.

The Educational Opportunity Program

The Educational Opportunity Program provides for the admission and support of New York State residents who are historically economically and academically disadvantaged. All such students will have demonstrated the academic potential to succeed at the college level and once accepted receive various academic, personal and financial support services. Applicants must select EOP on the SUNY application for consideration and must meet the academic guidelines for admission as determined by the college and the financial guidelines as established by the Office of Opportunity Programs in Albany. For further information, please call 631-420-2230.

TRiO Student Support Services (SSS)

TRiO SSS supports the academic success of a select group of students who are officially accepted to a program. For specific criteria and further information, please see the program details in the Campus Resources section.

Collegiate Science and Technology Entry Program

The Collegiate Science and Technology Entry Program (CSTEP) is a New York State Department of Education Program that helps to increase access and preparation of underrepresented students for STEM (Science, Technology, Engineering and Math) careers and licensed professions. Students in CSTEP receive academic and pre-professional support services including advisement, tutoring, educational workshops and graduate/medical school visits. Students are also connected to

internship and research opportunities have may participate in statewide conferences and competitions.

Admission of International Students

International students are individuals who are not U.S. citizens, permanent residents, or do not have refugee status in the U.S. Students attending on an F-1 Student Visa must be enrolled full time and submit the following information along with the standard SUNY application or common application:

1. Farmingdale State requires that foreign credentials be evaluated by a member of NACES www.naces.org; World Education Services www.wes.org (WES) or Spantran www.spantran.com are recommended.
   Secondary school records must reflect academic achievement equivalent to the minimum for admission (B average) when converted to the American grading scale. A transfer grade point average of at least 2.5 is required of international students who wish to transfer from other colleges in the United States.

2. Applicant's whose native language is not English must submit an official score report from one of the following tests to demonstrate English language proficiency or submit an official transcript from an accredited U.S. college with a grade of C+ or better in a college level writing course. Alternative methods of evaluation may be considered based on credentials.

Test	Minimum Requirement
TOEFL- IBT (internet-based)	74
TOEFL- CBT (computer-based)	203
TOEFL- (paper-based)	537
IELTS	6
SAT (critical reading)	470
iTEP	3.5
PTE (Pearson)	53

3. It is also necessary to provide financial documentation indicating that the applicant has sufficient funding to pay for all educational and personal expenses while in the United States. International students must be able to cover all the costs of attendance, as financial aid is not available to international students. The amount considered as sufficient funding may vary from year to year.

4. Application deadlines for students residing in another country are June 1 for the Fall term and November 1 for the Spring term.

Note: International students currently studying in the United States on an F-1 visa must also submit the following items:

1. Copies of current I-20, passport, visa, and I-94 form.

2. Completed transfer verification form indicating enrollment status at current institution

For additional information, please contact the Office of International Admissions, Laffin Hall or visit the webpage at www.farmingdale.edu/international.

Admission Decisions

Admission to programs is on a "rolling" basis, admitting all eligible candidates on a first-come, first-served basis. The College cannot guarantee that applications received after June 1st will be granted consideration. Applicants apply and are accepted to a specific curriculum.

Admissions requirements vary according to program. Decisions are based primarily on grades in all academic courses including the specific prerequisite courses required for each curriculum. Applicants with prerequisite courses in progress can be offered conditional acceptance. Final transcripts must be received prior to the start of the semester in order to maintain matriculated status.

Applications to the Applied Psychology, Dental Hygiene, and Nursing programs are not accepted on a rolling basis. Recommended application filing dates are October 15 (Spring) and March 1 (Fall) for Applied Psychology, October 1 (Spring) and (Fall) for Nursing, and January 15 for Dental Hygiene.

Applications to the Aeronautical Science - Professional Pilot are not accepted on a rolling basis. Recommended application filing date is March 1 for the Fall semester.

Admissions Appeals

Applicants who are denied and wish to request reconsideration of their application must submit a formal request in writing. It is recommended that a personal statement, updated academic information and letter of recommendation be included. Updated information should be sent to admissions@farmingdale.edu.

Earning a General Equivalency Diploma (GED)

Individuals who have not earned a high school diploma may be issued a General Equivalency Diploma (GED) upon successful completion of 24 college credits. For further information contact the High School Equivalency Program at the New York State Education Department at 518-474-5906 or visit www.access.nysed.gov/ged.

Articulation, Joint Admissions and Unified Transfer Agreements

Farmingdale State College has entered into several special agreements with local high schools, BOCES, two-year colleges, and other educational institutions designed to provide an easy transition to students both entering the College's academic programs and moving on to graduate school upon degree completion.

New York State residents who are graduates of a State University of New York two-year college or a City University two-year college, including University community colleges operating under the program of the University, and who possess an AA or AS degree, shall be guaranteed an opportunity to continue their education on a full-time basis at a baccalaureate campus of the University. AA and AS graduates will be granted full credit transfer for general education courses taken and not be required to repeat successfully completed course with similar curricular content. Transfer students are obligated to meet only those admissions requirements to institutions or to a particular program applicable to continuing and returning students. Transfer students are to be accorded, as far as possible, opportunities in areas such as housing, advisement and registration comparable to those of continuing and returning students. Graduates, when accepted in parallel programs at baccalaureate campuses of the University, will be afforded full junior standing and be given the opportunity to complete the requirements for a bachelor's degree within four additional semesters of full-time work. To be eligible for the program, a student must comply with application submission deadlines and have an AA or AS degree at the time of application.

Additional information about these agreements and Associate/Bachelor degree parallel programs at Farmingdale is available from the Admissions Office or the Provost's Office webpage.

University in the High School

University in the High School (UHS) is a dual enrollment program which helps bridge the gap between high school and college level study. The UHS Program enables qualified high school juniors and seniors to earn college credit for approved courses offered in their own high school. Students who register with Farmingdale State College through the UHS Program and successfully complete the course will be eligible to earn undergraduate college credits. The credits will be recorded on an official Farmingdale State College transcript that can either be used to pursue a degree at Farmingdale or sent to any other college the student wishes to attend.

Additional information about the University in the High School Program is available on the Farmingdale webpage or by calling the Office at 631-420-2199.

Student Immunization Policy

New York State law requires all students born on or after January 1, 1957 who are attending an institution of higher education to show proof of two doses of live measles vaccine given at least one month apart after twelve months of age and after 1968; one dose of live mumps vaccine given after twelve months of age; one dose of live rubella vaccine given after twelve months of age.

In lieu of immunization dates, students may submit physician documentation of disease for measles and mumps (not acceptable for rubella), or have blood tests called titers for each of the three diseases. Titers show the actual level of immunity to each disease (copies of laboratory reports required).

New York State law also requires that all students read and sign a letter about meningitis, the meningitis immunization, and to then make a choice regarding the immunization. Note: all resident students must be immunized for meningitis. Students who fail to comply with either NYS laws regarding MMR immunization or meningitis **will be disenrolled and will not receive any refund** of their tuition as per NYS law.

Students must comply with these requirements prior to July 1st for the fall semester. Failure to comply will result in a hold being placed on your account, which will prevent you from any future registrations at Farmingdale State College, and may result in cancellation of your enrollment. Medical exemptions are granted if a physician provides documentation demonstrating that immunization for measles, mumps, and rubella will be detrimental to a student's health, and exemptions are also granted for those submitting documentation of sincere religious beliefs against such immunizations. For those with exemptions, titers (laboratory tests) that demonstrate actual levels of immunity to measles, mumps, and rubella are required.

In order for Health Sciences students to be sent to clinical sites for educational training, agencies must be provided with information regarding student health status, including immunizations. Without documented immunity/vaccination, including MMR, varicella, Hepatitis B acknowledgement, Tdap, influenza and PPD, students will be unable to attend clinical rotations and receive the educational training necessary to meet program, licensure, and/or certification requirements. All students are required to meet New York State Hospital Code requirements and agency requirements prior to admission to clinical sites.

For further information, contact your physician, high school, county health department or the Health and Wellness Center at: 631-420-2009/2014.

Cross Registration

The primary intent of cross registration is to improve on-time degree completion by providing students access to the courses they need, when they need them. Cross-registration occurs when one SUNY institution (the Host Campus) provides instruction for a student enrolled in a degree or certificate program at another SUNY institution (the Home Campus) during the same academic term. For further information on the procedure for cross registration, please visit the FSC Registrar's webpage. You will be directed to the SUNY page to apply for cross registration.
www.farmingdale.edu/registrar/cross-registration.shtml

Admission Requirements — Bachelor & Associate Degrees

Code	Program Title/Major	Minimum Entrance Requirements
1092	Aeronautical Science-Professional Pilot (BS)	Integrated Algebra; Geometry; Algebra2/Trigonometry; 1 Unit of Laboratory Science
0087	Applied Mathematics (BS)	Integrated Algebra; Geometry; Algebra2/Trigonometry; Precalculus
2037	Architectural Engineering Technology (BS)	Integrated Algebra; Geometry; Algebra2/Trigonometry; 1 Unit of Laboratory Science
	Art & Graphic Design (see Visual Communications)	
0257***	Automotive Management Technology (BS)	Integrated Algebra; Geometry; Algebra2/Trigonometry; 1 Unit of Laboratory Science
0525	Automotive Technology (AAS)	Integrated Algebra; Geometry; Algebra2/Trigonometry; 1 Unit of Laboratory Science
1093	Aviation Administration (BS) *Airport Management and Operations* *Air Cargo Management and Operations*	Integrated Algebra; Geometry; Algebra2/Trigonometry; 1 Unit of Laboratory Science
1676	Bioscience (BS)	Integrated Algebra; Geometry; Algebra2/Trigonometry; Laboratory Biology and Laboratory Chemistry
2703	Business Analytics (BS)	Integrated Algebra; Geometry; Algebra2/Trigonometry; 1 Unit of Laboratory Science
2038	Business Management (BS)	Integrated Algebra; Geometry; Algebra2/Trigonometry; 1 Unit of Laboratory Science
1357	Computer Engineering Technology (BS)	Integrated Algebra; Geometry; Algebra2/Trigonometry; 1 Unit of Laboratory Science
1510	Computer Programming & Information Systems (BS) Database, Networking, Programming, Systems, Web	Integrated Algebra; Geometry; Algebra2/Trigonometry; 1 Unit of Laboratory Science
2728	Computer Security Technology (BS)	Integrated Algebra; Geometry; 1 Unit of Laboratory Science
1603	Construction Management Engineering Technology (BS)	Integrated Algebra; Geometry; Algebra2/Trigonometry; 1 Unit of Laboratory Science
1035*	Criminal Justice-Law Enforcement (AS)	Integrated Algebra; Geometry; 2 Units of Science; Laboratory Biology required
2105**	Criminal Justice: Law Enforcement Technology (BS)	Integrated Algebra; Geometry; 2 Units of Science; Laboratory Biology required
1489	Dental Hygiene- Completion (BS)	Associate Degree in Dental Hygiene from an ADA Accredited Program; Licensure as a Dental Hygienist; GPA to be considered
2616	Dental Hygiene- Entry Level (BS)	Integrated Algebra; Geometry; Laboratory Biology & Laboratory Chemistry; completion of Health Occupations Aptitude Exam Applications submitted by 1/15 Receive Priority Consideration
0545	Dental Hygiene - Entry Level (AAS)	Integrated Algebra; Geometry; Laboratory Biology & Laboratory Chemistry; EGL 101; BIO 166; BIO 220, Applications submitted by 1/15 Receive Priority Consideration
0216	Electrical Engineering Technology (BS)	Integrated Algebra; Geometry; Algebra2/Trigonometry; 1 Unit of Laboratory Science
0257***	Facility Management Technology (BS)	Integrated Algebra; Geometry; Algebra2/Trigonometry; 1 Unit of Laboratory Science
1186	Geographic Information Systems (BS)	Integrated Algebra; Geometry
2394	Global Business Management (BS)	Integrated Algebra; Geometry; Algebra2/Trigonometry; 1 Unit of Laboratory Science
2570	Interaction Design (B Tech)	Integrated Algebra; Geometry; Algebra2/Trigonometry; 1 Unit of Laboratory Science
1851	Horticultural Technology Management (B Tech)	Integrated Algebra; Geometry; 1 Unit of Laboratory Science
0611	Landscape Development (AAS)	Integrated Algebra; 2 Units of Science
0635	Liberal Arts & Sciences (AA)	Integrated Algebra; Geometry; 2 Units of Science; Priority admission is given to students who possess all minimum requirements.
0261	Manufacturing Engineering Technology (BS)	Integrated Algebra; Geometry; Algebra2/Trigonometry; 1 Unit of Laboratory Science
0493	Mechanical Engineering Technology (AAS)	PTech Students Only-Integrated Algebra; Geometry; Algebra2/Trigonometry; 1 Unit of Laboratory Science
0235	Mechanical Engineering Technology (BS)	Integrated Algebra; Geometry; Algebra2/Trigonometry; 1 Unit of Laboratory Science
0290	Medical Technology (BS)	Integrated Algebra; Geometry; Algebra2/Trigonometry; Laboratory Biology and Laboratory Chemistry required
0291	Nursing (BS)	Integrated Algebra; Geometry; Algebra2/Trigonometry; Laboratory Biology; Laboratory Chemistry; ATI-TEAS Preadmission Exam
0610	Ornamental Horticulture (AAS)	Integrated Algebra; 2 Units of Science
1021	Professional Communications (BS)	Integrated Algebra; Geometry; 2 Units of Science
2014	Science, Technology, & Society (BS)	Integrated Algebra; Geometry; 2 Units of Science
1319	Security Systems (BS)	Integrated Algebra; Geometry; 2 Units of Science
2082	Software Technology (BS)	Integrated Algebra; Geometry; 1 Unit of Laboratory Science
0182	Sport Management (BS)	Integrated Algebra; Geometry; Algebra2/Trigonometry; 1 Unit of Laboratory Science
2251	Telecommunications Technology (BS)	Integrated Algebra; Geometry; Algebra2/Trigonometry; 1 Unit of Laboratory Science
1091	Visual Communications: Art & Graphic Design (B Tech)	Integrated Algebra; 1 Unit of Art; Art Aptitude Test; Portfolio Review

* This program is offered by the Department of Criminal Justice.

** This program is offered by the Department of Security Systems/Law Enforcement Technology.

*** This is a concentration within the Industrial Technology Program.

Certificate Programs

Code	Program Title/Major	Code	Program Title/Major
0932	Accounting	1308	Management
1497	Computer Systems Technology	1311	Manufacturing Methods
0953	Computer Information Systems	1307	Marketing
1299	Health Studies	0914	Ornamental Horticulture
1307	International Business*	2028	Sciences for the Health Professions

* Local Certificate

To review the Gainful Employment Disclosures for certificate programs please visit www.farmingdale.edu/academics

School of Health Sciences - Technical Standards for Admission and Retention

Dental Hygiene Department

Dental hygiene education requires that the accumulation of scientific knowledge be accompanied by the simultaneous acquisition of skills essential to the profession. The curriculum is stressful requiring both emotional stability and physical stamina.

Candidates seeking enrollment into the Dental Hygiene program at Farmingdale State College must meet the safety and technical standards in the following areas: communication, observation/sensory, motor, intellectual-conceptual, and behavioral-social attributes.

Communication: The student must possess the ability to communicate effectively in English using reasonable spelling, grammar and syntax in both oral and written formats. In addition, the student must notice and appreciate both verbal and nonverbal communication when performing dental hygiene care. Examples of communication include but are not limited to:

- Effectively obtain a patient's history
- Accurately interpret data from medical records
- Document pertinent observations
- Interact effectively with members of the health care team
- Explain alternative treatment options
- Communicate directions during and after treatment

Observation/Sensory: Students must be able to observe a patient accurately, both at a distance and close at hand. In addition, the student must have the functional use of the senses of vision, touch, hearing, and smell which are necessary in assessing patients and maintaining their safety. Examples of observation/sensory skills include but are not limited to:

- Auditory ability to monitor vital signs.
- Visual ability to determine variations in color, shape, texture and consistency i.e. early signs of inflammation, skin changes (pallor, cyanosis and ecchymosis).
- Visual acuity to read charts, records, small print, handwritten notations and instrument markings.
- Tactile ability must be sufficient for assessment and performance of dental hygiene procedures, i.e. calculus detection, tooth defect identification.
- Palpation of pulses

Motor: The student is required to perform gross and fine motor movements, maintain consciousness and equilibrium, and possess the physical strength and stamina which are necessary to provide safe patient care. The candidate should have full manual dexterity including the functioning of both arms, both wrists, both hands and all fingers. Examples of motor skills include but are not limited to:

- Instrumentation skills requiring dexterity i.e. grasping, fingering, pinching, pushing, pulling, holding, extending, and rotation
- Controlled intraoral and extraoral hand movements of less than one millimeter
- Operation of foot controls for low speed handpieces, ultrasonic scalers, air polishers etc… .
- Responding rapidly to emergency situations (cardiac arrest, respiratory arrest, falls)
- Transferring patients
- Protect and remove patients from an area in the event of a fire or disaster

Intellectual-conceptual: The student must possess the ability to problem solve, establish a plan of care, set priorities, calculate, measure, analyze and synthesize objective as well as subjective data. These critical skills are essential for providing quality dental hygiene care. In addition the candidate must possess the ability to understand and comprehend three dimensional and spatial relationships. Examples of intellectual-conceptual skills include but are not limited to:

- Calculate the variations in milliamperage, kilovoltage, distance and exposure time on the resulting dental radiograph
- Measure clinical attachment loss
- Develop care plans based on individual patients needs
- Utilize appropriate instrument adaptation

Behavioral-social attributes: The student must possess emotional stability and flexibility, which will enable him/her to develop the ability to function effectively in stressful situations. This includes the ability to adapt to changing environments, exercise sound judgment, complete assessment and intervention activities and develop sensitive interpersonal relationships with patients, families and others responsible for health care.

Examples of these behavioral and social attributes include but are not limited to:

- Ability to express empathy
- Ability to think and act rationally during a crisis
- Demonstrate appropriate behavior towards staff, peers and patients according to societal norms
- Maintaining confidentiality
- Accepting constructive criticism

Admission to the dental hygiene program is open to all qualified individuals in accordance with the 1973 Vocational Rehabilitation Act (29 U.S.C. 701 et seq.) and the Americans with Disabilities Act (42 U.S.C. 12101 et seq.). However, due to the rigors of the curriculum and the immense responsibility for safe patient treatment a student can be denied admission to the dental hygiene program or disenrolled from the program if accommodating the student's disability would pose a direct threat to patients or would compromise the academic integrity of the program.

Medical Laboratory Technology Department

Candidates seeking enrollment into the MT curriculum must complete the College entrance requirement of a physical examination demonstrating satisfactory physical and emotional health, as well as the necessary proof of immunization against measles, mumps, and rubella. Candidates will also be expected to meet the safety and technical standards that are necessary to perform the "essential functions" of a Medical Technologist. The technical standards are in the following areas: observation-communication, motor, intellectual-conceptual, and behavioral-social attributes.

Observation-Communication: The student must possess the ability to communicate effectively and read, write and use the English language. In addition, the student must have the functional use of the senses of vision, touch, hearing, and smell. Examples of observation-communication include but are not limited to:

- Read and interpret laboratory endpoints such as color, cloudiness/turbidity and texture.
- Identify stained and unstained cellular elements using a microscope.
- Report results in writing, orally, or by computer entry.
- Possess a sense of touch and temperature discrimination.
- Work safely with potential chemical, radiological and biological hazards.

Sensory/Motor: The student is required to perform gross and fine motor movements, maintain consciousness and equilibrium. Examples of sensory/motor skills include but are not limited to:

- Demonstrate manual dexterity of both upper limbs to operate laboratory equipment, and perform manual laboratory procedures such as pipetting, venipuncture, and plating microorganisms.
- Possess eye-hand coordination to operate a microscope.
- Respond rapidly to an emergency situation (spills, fire, disaster)

Intellectual-conceptual: The student must possess the ability to problem solve, prioritize work, calculate, measure, analyze and synthesize objective as well as subjective data. Examples of intellectual-conceptual skills include but are not limited to:

- Perform statistical calculations to interpret test results
- Sample measurement and evaluation
- Interpret quality control results
- Work on multiple tasks simultaneously

Behavioral-social attributes: The student must possess emotional stability and flexibility, which will enable him/her to develop the ability to exhibit appropriate professional conduct in stressful situations. Examples of these behavioral and social attributes include but are not limited to:

- Fulfill commitments and be accountable for actions.
- Maintain composure in stressful situations, i.e. under pressure and with time constraints.
- Willingly follow directions.
- Recognize emergency situations and react appropriately.
- Maintain patient confidentiality.

A person who cannot perform the "essential functions" of the profession will not be considered qualified for entrance into the program and may be denied access without being subject to legal action for discrimination. Both section 504 of the Rehabilitation Act. 29 U.S.C.A. Section 794, and the Americans with Disabilities Act prohibit discrimination against "otherwise qualified" persons with a disability. Those persons not meeting the technical standards are not considered "otherwise qualified" to enter into the profession.

Nursing Department
Candidates seeking enrollment into the nursing program at Farmingdale State College must meet the safety and technical standards in the following areas: observation-communication, motor, intellectual-conceptual, and behavioral-social attributes.

Observation-Communication: The student must possess the ability to communicate effectively and read, write and use the English language. In addition, the student must have the functional use of the senses of vision, touch, hearing, and smell which are essential in assessing patients and maintaining their safety. Examples of observation-communication include but are not limited to:

- Listening to heart and breath sounds
- Responding to alarms
- Visualizing early signs of distress/complications, e.g. changes in skin color; assessing surgical wounds
- Detecting the presence of a foul odor or drainage
- Feeling pulses
- Effectively obtain a patient's history
- Accurately interpret data from medical records
- Document pertinent observations
- Interact effectively with members of the health care team

Sensory/Motor: The student is required to perform gross and fine motor movements, maintain consciousness and equilibrium, and possess the physical strength and stamina which are necessary to provide safe nursing care. Examples of sensory/motor skills include but are not limited to:

- Transferring patients
- Performing skills requiring dexterity (insertion of tubes, medication injections, instilling injections, inserting suppositories, tracheostomy care)
- Responding rapidly to emergency situations (cardiac arrest, respiratory arrest, falls)
- Protecting and remove patients from an area in the event of a fire or disaster

Intellectual-conceptual: The student must possess the ability to problem solve, establish a plan of care, set priorities, calculate, measure, analyze and synthesize objective as well as subjective data. These critical skills are demanded of nurses in today's complex health care settings. Examples of intellectual-conceptual skills include but are not limited to:

- Calculating medication dosages, IV flow rates
- Measuring intake and output
- Developing teaching plans for individual patients

Behavioral-social attributes: The student must possess emotional stability and flexibility, which will enable him/her to develop the ability to function effectively in stressful situations. This includes the ability to adapt to changing environments, exercise sound judgment, complete assessment and intervention activities and develop sensitive interpersonal relationships with patients, families and others responsible for health care.

Examples of these behavioral and social attributes include but are not limited to:

- Ability to express empathy
- Ability to think and act rationally during a crisis
- Demonstrating appropriate behavior towards staff, peers and patients according to societal norms
- Maintaining confidentiality
- Accepting constructive criticism

School of Engineering Technology – Aviation Professional Pilot Program Technical Standards for Admission and Retention

Flight training requires that the accumulation of aeronautical knowledge be accompanied by the simultaneous acquisition of skills essential to the profession. The curriculum is stressful requiring both emotional stability and physical stamina. All students flight training at Farmingdale State College must meet the safety and technical standards in the following areas: Communication Skills, Sensory Observation Skills, Motor Skills, Intellectual-Conceptual (Thinking) Skills, Behavioral-Social Skills, and Environmental Tolerance Skills. In addition students must be able to obtain and maintain a FAA Medical Certificate as specified in the Medical Standards in the Code of Federal Regulations Title 14 Part 67, and provide acceptable United States Citizenship Documentation or acceptance by the Transportation Security Administration Flight School Security Program for Legal Aliens in the Code of Federal Regulations Title 14 Part 1552.

Communication Skills: The student must possess the ability to communicate effectively in English using reasonable grammar and syntax in both oral and written formats. In addition, the student must notice and appreciate both verbal and nonverbal communication when performing the duties of Pilot in Command (PIC). Communication skills will be evaluated upon the student's pronunciation, structure, vocabulary, fluency, comprehension, and interactions of the English language as per the English language eligibility requirements of 14 CFR parts 61 and 63. Read, write, and understand English as required by FAA standards. Use English to obtain necessary information from acural and written sources. Express information clearly in English both verbally and in writing. Understand and correctly respond to radio and air traffic communication. Communicate clearly by radio with air traffic control Communicate clearly by radio with other pilots in the air.

Sensory Observation Skills: Students must be able to make independent observations and assessments to maintain positive aircraft control and safely pilot an airplane: observe air traffic accurately, both at a distance and near. In addition, the student must have the functional use of the senses of vision, touch, hearing, and smell which are necessary in assessing aircraft preflight actions and maintaining aircraft safety.

Examples of Sensory Observation Skills include but are not limited to:

- Complete a pre-flight inspection of the engine, propeller, and electrical, environmental, hydraulic, pneumatic, fuel, ignition, lubrication, and flight control systems
- Process visual, auditory, and tactile input simultaneously
- Monitor for other air traffic through continuous visual scanning and radio calls
- Monitor instrument panel
- Detect and respond to auditory signals from air traffic control
- Chart flight plan with maps
- Possess quick sensory response time

Motor Skills: The student is required to possess sufficient physical strength, flexibility, and dexterity to operate an airplane, perform gross and fine motor movements, and maintain consciousness and equilibrium to provide safe aircraft operation. The candidate should have full manual dexterity including the functioning of both arms, both wrists, both hands and all fingers.

Examples of motor skills include but are not limited to:

- Independently execute all required flight maneuvers including climbs, descents, stalls, turns, take-offs and landings
- Perform manual inspections of the airframe, engine, fuel tanks and oil reservoir requiring the ability to climb while maintaining balance and dexterity
- Respond to engine indications and instruments by making manual adjustments
- Sit for prolonged periods
- Possess quick physical response time
- Activate brake pedals for aircraft steering and braking
- Maintain balance and stability

Intellectual-Conceptual (Thinking) Skills: The student must possess the ability to problem solve, establish a plan of action, set priorities, calculate, measure, analyze and synthesize objective as well as subjective data. These critical skills are essential for applying aviation concepts and technology to safely pilot an aircraft. In addition the candidate must possess the ability to understand and comprehend three dimensional and spatial relationships.

Examples of intellectual-conceptual skills include but are not limited to:

- Read, understand, and follow Farmingdale State College, State, and FAA Regulations
- Recognize the design and operation of aircraft components, instruments, and systems
- Evaluate information and conditions to do flight planning, maneuvering, and safety risk management
- Apply principles of flight, weather, aerodynamics, and navigation to complete flight lessons
- Evaluate flight situations and make decisions quickly with sound judgment
- Process multi-sensory input and multi-task simultaneously to maintain positive aircraft control
- Keep up with sequence and pace of instructions

Behavioral-Social Skills: The student must possess emotional stability and flexibility, which will enable him/her to develop the ability to function effectively in stressful situations. This includes the ability to adapt to changing environments, exercise sound judgment, comprehend constructive criticism, and behave appropriately and safely in a high-risk learning environment.

Examples of these Behavioral-Social skills include but are not limited to:

- Work independently with minimal or no supervision
- Follow through with individual responsibilities
- Evaluate information and conditions to do flight planning, maneuvering, and safety risk management
- Exercise good judgment
- Ability to think and act rationally during stressful situations
- Comply with drug-free requirements and testing
- Demonstrate appropriate behavior towards staff, and peers according to societal norms
- Accepting constructive criticism

Environmental Tolerance Skills: The student must be able and willing to work in a flight training environment for prolonged periods of time. Examples of these Environmental Tolerance Skills include but are not limited to:

- Changes in altitudes
- Changes in temperature
- Changes in air pressure
- Extreme noise
- Gas and Fumes
- Moving objects and vehicles
- Slippery or uneven surfaces
- Variations of lighting

FAA Medical Certificate Standards: Please keep in mind that you will have to fulfill additional requirements to be eligible for certification exams or licensure in the field. A medical exam administered by an FAA Aviation Medical Examiner is required prior to flight training. Students must be able to obtain a 1st, 2nd or 3rd class FAA medical certificate. For students pursuing flight as a career choice the department strongly recommends students obtain a 1st class medical certificate. The requirements for medical standards are listed in the Code of Federal Regulations Title 14 Part 67. For specific information on medical standards required for obtaining licenses and ratings through an Aviation Medical Examiner, or to locate an Aviation Medical Examiner in your area, go to www.faa.gov/pilots/amelocator/.

Alien Flight Student Program (AFSP): The mission of the Alien Flight Student Program (AFSP) is to ensure that foreign students seeking training at flight schools regulated by the Federal Aviation Administration (FAA) do not pose a threat to aviation or national security. Section 612 of the Vision 100 - Century of Aviation Reauthorization Act (Public Law 108-176, December 12, 2003) prohibits flight schools regulated by the Federal Aviation Administration (FAA) from providing flight training to a foreign student unless the Secretary of Homeland Security first determines that the student does not pose a threat to aviation or national security. Vision 100 transferred responsibility for conducting security threat assessments for foreign students seeking flight training from the Department of Justice to the Department of Homeland Security. On September 20, 2004, the Transportation Security Administration (TSA) issued an interim final rule establishing the Alien Flight Student Program (AFSP).

Legal notices are available on the Candidate and Provider menus. These include the notices about the Vision 100 - Century of Aviation Reauthorization Act, Paperwork Reduction Act, Information Verification, and Privacy and Security within the AFSP website. For more information, first review the Flight Training for Aliens and Other Designated Individuals; Security Awareness Training for Flight School Employees Interim Final Rule (IFR) 49 CFR 1552, which is at IFR_Alien_Pilot.pdf. Also review the rulemaking docket, which contains exemptions, interpretations, and other legal documents associated with the IFR. The rulemaking docket is available at www.regulations.gov. For the AFSP rulemaking docket, click on "Simple Search" and then enter the docket number for the AFSP rulemaking docket (19147) and click on "Search".

If you have further questions regarding legal notices on AFSP policy, please send questions with all relevant details by email to AFSP.Help@dhs.gov.

Disability Accommodations: We have developed our technical standards in compliance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973. We will provide reasonable accommodations to qualified students with disabilities. The College may not make inquiry regarding a prospective student's disability status prior to admission to the institution. However, students may choose, at any time during their association with the College, to disclose a documented disability. Students should be aware that certain disabilities and/or their mitigating therapies might delay or preclude their participation in some of the College's programs of study due to regulatory limitations of the Federal Aviation Administration. Students are encouraged to discuss these concerns with an Aviation Medical Examiner or directly with the FAA in Oklahoma City, OK by phoning (405) 954-4821.

Farmingdale State College will provide reasonable accommodations but is not required to substantially alter the requirements or nature of the program or provide accommodations that inflict an undue burden on the College. In order to be admitted one must be able to perform all of the essential functions with or without reasonable accommodations. However, due to the rigors of the curriculum and the immense responsibility for safe aircraft operation a student can be denied admission to the Pro-Pilot program or disenrolled from the program if accommodating the student's disability would pose a direct threat to aircraft safety or would compromise the academic integrity of the program. If an individual's health changes during the program of learning, so that the essential functions cannot be met with or without reasonable accommodations, the student may be withdrawn from the Pro-Pilot program.

Graduation Requirements: All Pro-Pilot Majors must have all FAA certificates/ratings required prior to graduation. Grades earned are issued upon obtaining the FAA certificate/rating specified in the course.

FSC Professional Pilot and Aviation Flight Minor students must demonstrate safe practices, good judgment, and sound aeronautical decision-making (ADM) as specified in the FSC Flight Operations Manual and the FAA Pilot's Handbook of Aeronautical Knowledge for ALL flights flown as a pilot during the period of their enrollment. This includes piloting aircraft that are not owned or operated by FSC. All flights by FSC enrolled flight students are subject to examination by the Chief Flight Instructor.

If at any point during your tenure with Farmingdale State College you fail to meet our safety and technical standards, the Aviation Center Management reserves the right to no longer provide you flight training.

Only students who adhere to these behavioral-social skills standards and the rules/policies of our Flight Operations Manual are eligible for the Professional Pilot Degree or Aviation Flight Minor. Any student who fails to meet these standards while piloting any aircraft (whether FSC owned/operated or other) during their enrollment at Farmingdale State College may be removed from the Professional Pilot or Flight Minor program.

An admissions interview may be conducted at the discretion of Aviation Center management prior to allowing a student to flight train at Farmingdale State College.

Undergraduate Academic Information

College Requirements

The completion of EGL 101 (Composition I: College Writing) and EGL 102 (Composition II: Writing About Literature) with a grade of C or better are graduation requirements for all students at Farmingdale State College. Additionally, students enrolled in baccalaureate programs are required to complete a writing intensive course with a grade of C or better as outlined in their program of study. Students should consult with their program advisors to ensure that all requirements for graduation have been successfully satisfied.

Grades and Achievement Points

The following is the official college grading system:

Achievement Points

Minimum Grade Percentage Equivalent	Grade	GPA Equivalent	Interpretation
93.0	A	4.00	Excellent
90.0	A-	3.67	
87.0	B+	3.33	
83.0	B	3.00	Good
80.0	B-	2.67	
77.0	C+	2.33	
73.0	C	2.00	Satisfactory
70.0	C-	1.67	
67.0	D+	1.33	
60.0	D	1.00	Minimum Passing
0	F		Failure
0	I		Incomplete
0	W		Withdrawal
0	UW		Unofficial Withdrawal

To determine the cumulative grade point average, multiply the achievement point value of each grade by the credits designated for each subject, then divide the total achievement points by the number of credits carried.

Only grades earned in the college are considered in the computation of averages for all students. A student must attain a 2.0 cumulative grade point average in order to qualify for graduation. If at the end of any semester a student is deficient in achievement points or deficient in a major course (see specific program requirements), the student may be placed on probation or considered for dismissal, depending on the extent of the deficiency. On recommendation of the Department Chair, a student may be required to carry a reduced schedule.

Academic Standing for Matriculated Students

To be eligible for graduation, a Farmingdale student must achieve a cumulative grade point average of at least 2.0. To advance satisfactorily toward graduation, students are advised to remain in "good academic standing" which is defined in the following.

GOOD ACADEMIC STANDING – A student is in satisfactory academic standing when above the level for probation according to the College's guidelines.

ACADEMIC PROBATION – The purpose of academic probation is to alert the student and the institution to problems associated with the student's academic performance and to recommend or implement strategies for improvement. According to College policy, students who fail to obtain a minimum grade point average of 2.0 in any particular semester will automatically be placed on academic probation which is a warning that their good academic standing is in jeopardy. However, your major may have higher standards to continue in that major. Students placed on academic probation are permitted to continue with their studies at Farmingdale, but are expected to meet with faculty advisors and to seek tutoring and further assistance.

ACADEMIC SUSPENSION – Students who are on academic probation twice in succession (two semesters with a GPA below 2.0, not including summer or winter intersession) are subject to suspension. A student who has been suspended for poor academic performance is not permitted to enroll at the College in any coursework for one academic semester (fall or spring) from the date of suspension.

Freshman Forgiveness Policy

First-year, first-semester freshman students with a GPA below 2.0 will be put on Academic Warning for the following semester. A "hold" will be placed on their registration until an Action Plan for success is appropriately executed with the College. Once filed, the hold will be released and students are expected to abide by the academic success plans and goals as outlined in their Action Plan. Thereafter, freshman students will follow the academic probation/suspension policies outlined above.

Appeal of Academic Suspension for Matriculated Students

Any student who has been suspended for academic reasons may appeal that decision by submitting a petition, in writing, to the appropriate academic chair requesting a review of the decision. The appeal should include supporting evidence such as medical explanations and changes in grades that might justify a reversal of academic suspension.

Academic Reinstatement Following Suspension for Matriculated Students

Academic reinstatement refers to the process by which a student is granted permission to return to Farmingdale State College following an absence of one or more semesters due to suspension for reason of poor academic performance. A student seeking reinstatement should petition the academic chair, in writing, requesting permission to return. Supporting evidence, such as successful completion of coursework at another institution while on suspension from Farmingdale State College, must be submitted in writing with the petition. The reinstatement permits the student to resume matriculated status in the same department for the semester immediately following the one during which he/she was suspended.

Academic Readmission for Matriculated Students

Academic readmission refers to the process by which a matriculated student seeks permission to return to Farmingdale State College after an absence of two or more academic semesters. There are two different processes:

1. Students who have discontinued their attendance for less than five years and wish to apply for readmission to complete their degree are advised to meet with the appropriate Chair to discuss their intentions and evaluate their academic record. Students who withdrew in poor standing or who were academically suspended will be expected to present evidence that they are capable of improved academic performance on return. A student who re-enrolls in the same major in which they were last enrolled and re-enrolls within five years of the last date they attended the College is allowed to meet graduation requirements that were in effect at the time the student was originally enrolled.

2. For students who have discontinued their attendance for five or more years and wish to apply for readmission to complete their degree, they must file a SUNY application as a "TRANSFER" student and list Farmingdale State College (95) as a prior college. The application fee is non-refundable regardless of the readmission decision. Each application will be evaluated according to the specific admission criteria in place at the time of the readmission application. A student who re-enrolls in the same major in which they were last enrolled and re-enrolls more than five years after they last attended the College must meet the most current graduation requirements. All course work previously completed will be reviewed on a course-by-course basis to determine whether it meets current graduation requirements. All courses completed will remain on the student's transcript. Only credits for courses that meet the current requirements will be used in calculating the student's graduation grade-point average. Students can file a SUNY application online at www.suny.edu/attend. For more information contact the Admissions Office at 631-420-2200.

For both processes, a student who re-enrolls in a different major than the one in which they were last enrolled is subject to a course-by-course evaluation to determine whether the completed course work meets the requirements of the new major. Only credits for courses that meet the requirements of the current major will be used in calculating the student's graduation grade-point average. However, all courses completed will remain on the student's transcript. A student re-enrolling in a new major is required to meet the graduation requirements at the time of re-enrollment.

Policies for Academic Standing for Non-Matriculated Students

1. First-time students, or students with prior academic credit who are in good academic standing, may take a maximum of 5 classes or 16 credits each semester (fall/spring), unless an appeal is processed through the Non-Matriculated Student Academic Advisor located in the Academic Advisement and Information Center (AAIC).

2. Good Academic Standing – students are in good academic standing when their GPA is 2.0 or higher.

3. Academic Probation – students who fail to obtain a minimum grade point average of 2.0 in any particular semester will automatically be placed on academic probation.

4. Academic Suspension – students who are on academic probation twice in succession (not including summer, or winter intersession) are subject to suspension. Students who have been suspended for poor academic performance are not permitted to enroll at the College in any coursework for one academic semester (fall or spring) from the date of suspension.

5. Appeal of Academic Suspension – Any student who has been suspended for academic reasons may appeal that decision by submitting a petition, in writing, requesting a review of the evidence. The appeal should include supporting evidence such as medical evidence or changes in grades that might justify a reversal of academic suspension. To initiate this appeal, the student should first meet with the Non-Matriculated Student Academic Advisor. Review and final decision of an appeal will be made by the Provost's Office.

6. Non-Matriculated students may earn a maximum of 32 credits, after which they must seek admission to a program or request permission from the Non-Matriculated Student Academic Advisor to remain as a non-matriculated student. Failure to do so will prevent the student from registering for further courses.

7. Non-Matriculated students who wish to continue taking courses with non-matriculated status after their initial term at Farmingdale are required to submit official high school and/or college transcripts to the Admissions Office in order to maintain registration privileges for future semesters.

See the Non-Matriculated Student Handbook for Information on readmission and advisement at www.farmingdale.edu/academics/academic-advisement/academic-advisement-information-center/non-matriculated-students.shtml

Change of Major

Matriculated students who wish to declare or change their program of study must file a curriculum/major change application, available in Registrar in Laffin Hall, prior to the semester in which the change is to be effected. For further information, call the Registrar 631-420-2776.

Course Numbering

Each course is identified by a six digit code.

The three letters in the code identify the department offering the course, and the three digits following the letters identify the course within the department.

Degree credit courses are numbered 100 and above. College courses are numbered from 001 to 099 and for purposes of determining tuition and fees only, these courses are assigned an appropriate number of non-college units (ncu) rather than college credit.

Late Registration and Drop/Add Period

The official Late Registration and Drop/Add period takes place during the first week of classes. This period officially ends at midnight on the seventh day after the first class of the semester. Students may add or drop classes from their schedule during this week. Students who have not yet registered for classes may be permitted to do so during this period under extenuating circumstances only. During this period, students will receive 100% refund for dropped courses and/or cancellation of their schedule.

All registration activities cease AFTER the first week of classes.

The College does not guarantee that any student will be allowed to register for classes after the official late registration, add/drop period.

Drop and Withdrawal Period

Courses that are dropped during the first week of classes will not appear on a student's transcript.

During the first week of classes students will receive 100% refund for courses that are dropped and for schedules that are canceled. During the second week of classes students will be entitled to a 70% refund. During the 3rd week they are entitled to a 50% refund and during the 4th week they are entitled to receive a 30% refund. After the 4th week of classes students are fully liable for all tuition and fees.

The withdrawal process begins on the second week of classes. Starting the second week of classes students who initiate a withdrawal, course or semester withdrawal will receive a "W" for that course on their transcript. The financial liability will be determined by the refund schedule in effect at the time the withdrawal is processed. For further information on the withdrawal procedure, refer to either "WITHDRAWAL FROM A COURSE" or "WITHDRAWAL FROM THE COLLEGE" sections in the catalog.

Permission to Carry Extra Courses

Any student who wishes to carry more than 18 credits during any one semester must receive written permission from the Department Chair and the School Dean of the student's major. To obtain this permission, a student must display evidence which substantiates the ability to succeed in the additional course work.

Permission to Enroll in Off-Campus Courses

Students who wish to register for courses at other colleges are advised to obtain course descriptions and to consult with the Department Chair and the School Dean. The off-campus approval forms are available in the Office of Transfer Services.

Special Session Registration Limitations

Farmingdale State College limits its winter intersession (January) to 4 credits per student. For summer sessions, students may not register for more than 7 credits in either Session A or Session B. The maximum number of credits for which a student may register during the combined terms of the entire Summer Session is 14. Exceptions to these credit limits are few and must be approved by the curriculum Chair or Dean or, in the case of non-matriculated students, the Academic Advisor for Non-Matriculated Students.

Study Abroad

Please refer to the Office of International Education and Programs listed later in this section of the catalog.

Leave of Absence for Military Personnel

The following procedure is for military personnel who interrupt their studies for up to three (3) weeks for military training which is in compliance with US Executive Order 13607. Some courses may not lend themselves to a Leave of Absence.

The course of action is to be determined by the faculty member teaching the course.

1. Students identified as US service members or reservists (SMR), must inform the campus' Director of Veterans Services (DVS), as well as their instructors, of such designation during the first week of each semester.

2. SMR students, who are subject to drill schedules, must provide the DVS, as well as their instructors, with a current copy of their drill schedule for the current semester. The drill schedule must be provided during the first week of the semester. If the drill schedule is updated, and the update(s) could potentially interfere with the student's coursework, such updated schedule must also be provided to the DVS and instructors within five business days of receipt of such update.

3. If an SMR student needs to suspend studies due to an active mobilization obligation, such request must be in writing prior to the interruption and addressed to each of his/her faculty, with copy to the DVS. Such request will only be considered if the SMR student has made satisfactory progress in the course, as determined by the faculty member, prior to the expected interruption. If progress in the course is unsatisfactory, the instructor can suggest several options (e.g. withdrawal, incomplete).

4. Should the training commence at the beginning of the semester, or before classes begin, the Veteran's Advisor will serve as a liaison between student and instructor in order to determine if the course objectives can still be met. If the leave of absence is approved, and occurs prior to the first day of classes, the student will not be marked Non Attended on the Non Attendance Roster.

5. To the degree possible, the student must maintain electronic communication with the instructor in order to make sure that s/he is keeping up to date with assignments while away.

6. The student must make up all missed course work in a time frame agreed upon with the instructor.

Withdrawals

Withdrawal from a Course
A matriculated student who wishes to withdraw from a course should seek the counsel of the curriculum chair.

Students wishing to withdraw from a course must obtain a withdrawal form from the Registrar's Office, complete it, obtain the instructor's signature with verification date of last attendance, sign the form, and return it to the Registrar's Office for processing.

Students who withdraw to enter military service and wish to receive credit for course work or a tuition refund must submit a written request, together with a copy of their orders, to the Registrar's Office.

A grade of "W" will be given to any student who officially withdraws from a course from the beginning of the second week through the end of the ninth week of classes. Withdrawal after the ninth week of classes is permitted only under extenuating circumstances at the discretion of the instructor.

NOTE: Students receiving financial aid for a financial aid period that includes a shortened session, such as a summer session or Intersession, who drop or withdraw from a class/classes in a session and are not currently attending any classes may be required to submit a "Statement of Intent to Return" to maintain their aid for that period. Please consult with the Office of Financial Aid.

Withdrawal from Current Semester

Any student enrolled in more than one course who wishes to withdraw from every course must initiate the semester withdrawal procedure through the **Registrar's Office**. Students are first encouraged to discuss semester withdrawal and its potential academic and financial aid consequences with the chair of their department. Then follow this procedure::

- First week of classes: This is the add/drop period during which students may withdraw from courses freely.

- Second week of classes through the last day of classes: Students must obtain a Request for Withdrawal from Current Semester form, complete section A and submit the form to the Registrar's Office.

- After the ninth week of classes through the last day of classes: Students must obtain a Request for Withdrawal from Current Semester form, complete sections A, B and C, and submit the form to the Registrar's Office.

- After the last day of classes: Please refer to the section in the College Catalog titled "Retroactive Withdrawal."

Students who do not follow this procedure will remain enrolled in their courses and may receive failing grades for work not completed. In addition, the College will not consider a full or partial refund of fees for any semester in which a student has failed to complete the withdrawal procedure nor will the College release information about a student's academic record until financial clearance is obtained.

Formal readmission to the College following semester withdrawal is only required after an absence of two or more consecutive academic semesters (fall or spring). For more information, please review the section titled "Academic Readmission" in the College Catalog. Be aware that certain academic programs may follow their own guidelines for readmission.

Please note that any student with questions about semester withdrawal or who encounters difficulty completing the process may request assistance by visiting the Registrar's Office in person or contacting the Office by phone at (631) 420-2776 or email at regoffice@farmingdale.edu.

Retroactive Withdrawal

Students who wish to apply for withdrawal from a previous semester in which they received a failing grade (F) must apply to the Chair of the Admissions and Academic Standards (AAS) Committee for Retroactive Withdrawal. **Retroactive withdrawal, if granted, applies to all courses for the semester in question. Application must be made within one year of the term in question.**

Retroactive withdrawal is granted if there are medical issues, serious family situations or other severe extenuating circumstances which prevented a student from attending classes during the semester or completing their academic obligations. It applies to students who did not officially withdraw from their courses or the college in a timely manner due to these circumstances.

Students who apply for retroactive withdrawal must do so by writing a letter to the Chair of AAS/Retroactive Withdrawal explaining their circumstances and providing documentation of their situation (hospital record, accident report, death certificate, etc.).

If students have been granted Retroactive Withdrawal in any given semester, under some circumstances, they may appeal for a tuition refund outside of the normal refund policy and schedule. Please see the policy of the Extenuating Circumstance Committee outlined below.

Extenuating Circumstance Committee

There are times when medical issues, serious family situations or other similar severe circumstances arise that may prevent a student from attending classes for the remainder of a semester in which they are enrolled. These circumstances may compel a student to withdraw from their classes. SUNY Policy establishes criteria where the student may appeal to the Extenuating Circumstances Committee (ECC) to request a refund which is outside the normal refund policy and schedule.

That criterion includes:

- The circumstance must be of a serious enough nature that would preclude the student from continuing their studies for the semester.

- Application for the refund must be made within one year after the end of the term in question. However, it is advisable for appeals to be filed as soon as possible.

- The student has not completed more than one half of the term. If a student has completed more than one half of the term, the case is not eligible for consideration by the ECC.

- The student must have officially withdrawn from their classes (if the semester is over, this would involve appealing first to the Retroactive Withdrawal Committee).

- The student has not received or will not receive academic credit for the term.

If the circumstance meets all of the above, the student may appeal in writing to the ECC. Along with a letter explaining the circumstances, documentation should be provided which can independently verify the facts presented in the case (doctor's notes, etc.). The ECC can only review written requests and will respond in writing to the student. No information can be given out via email or phone, as per FERPA laws. All decisions of the ECC are final and cannot be appealed elsewhere. Appeals should be sent to: Extenuating Circumstance Committee Farmingdale State College, Farmingdale, NY 11735

Policy on Non-Attendance

Students who do not attend class at least once during the first two weeks of the semester will be removed from the official class roster and receive a "N" notation, for non-attendance, on their academic record for that class.

Non-attendance does not cancel a student's financial liability for the class. In order to remove the liability, the official withdrawal procedure must be followed. Refunds will be calculated according to the schedule in effect at the time of withdrawal.

There may be situations where students who never attend class and do not follow the official withdrawal procedure may be eligible for consideration to have their liability cancelled due to extenuating personal circumstances. In such cases, the student must make a written appeal to the Extenuating Circumstances Committee to have his/her case evaluated. The Committee reserves the right to assess an Administrative Cancelled Registration Fee for successful appeals if such action is deemed appropriate. This fee is assessed at one half of the tuition per course for each cancellation of liability, up to a maximum of $250 per semester.

Financial Aid Attendance Policy

Title IV Programs:
Students who fail to attend any classes will be ineligible for Title IV financial aid. Financial Aid eligibility is based on the course load of courses actually attended. If notification of non-attendance in any class is received at any time, the determination of federal financial aid eligibility will be re-evaluated for that term and may result in financial aid forfeiture and/or a balance due to the College.

In addition, the following are circumstances in which a student's Title IV aid will be adjusted/prorated:

- Withdrawal from classes during the first week may affect the awarding of Title IV aid. Students should be aware that their financial aid is based on the number of credits for which the student is registered and attending that apply toward their current academic program at the end of the first week of classes. For example,
a student who registers as full-time (12 credits or more) and is packaged as a full time student, and subsequently drops to nine credits during the first week, will have their aid adjusted to 3/4 time status, reflecting the nine credit load.
- Federal regulations require the College to prorate Title IV aid for students who stop attending all classes after the first day of school, up until the 60% point of the semester, generally defined as through the ninth week of classes. This recalculation is based on the formal withdrawal date or the last date of attendance during the semester regardless of whether the student withdrew officially or simply stopped attending classes (unofficial withdrawal).

New York State Programs:
State Education Law specifies that students be in full-time attendance as defined by the Commissioner of Education, in order to be eligible for State Sponsored Student Aid. The commissioner has defined full-time attendance as enrollment for 12 or more credits per semester and provided that the student is registered for at least 12 credits required for their program. Students should be aware that repeated courses and/or courses not required for their program do not count towards their full-time status.

TAP Waivers: Students who have not met the state policy for academic progress due to extraordinary circumstances, may apply for a TAP waiver. Applications may be obtained for a TAP waiver from the Office of Financial Aid. This is a state regulated form of appeal, and requires detailed documentation in order to be considered for a one-time waiver for New York State mandated academic guidelines. Please see the state academic guideline chart in the Financial Aid section of this catalog for additional information on State mandated progress. You may submit your application and evidence of the reasons you failed to meet the academic standards mandated by New York State. Applications will be evaluated and a response will be received within two weeks.

Title IV Recalculation of Federal Aid

Return of Federal (Title IV) Financial Aid
Students who completely withdraw from classes (through successive dropping of courses until they are no longer registered or in a complete withdrawal from all courses at once) are subject to the Return of Title IV refund calculation as dictated by federal regulations.

NOTE: Students who partially withdraw from courses for the term are not subject to a return of their federal aid but should be aware that their financial aid eligibility will be recalculated.

Determination of Federal Aid Earned
Earned aid is determined based on the number of calendar days the student attended classes divided by the total number of calendar days in the term. The result is a percentage of federal aid funds that the student is entitled to keep. For example, a student who attends 30% of the term has earned 30% of the total aid. If the student attended classes through 60% or more of the term, the percentage of federal aid earned is 100%.

Return of Unearned Federal Aid

The total federal aid disbursed at the point of withdrawal less the earned amount constitutes the unearned aid that must be returned to the federal government. If it is determined that the student has received excess funds, the College must return a portion of the excess equal to the lesser of the student's institutional charges multiplied by the unearned percentage of funds, or the entire amount of the excess funds.

The College will allocate the return of unearned aid in the following order:

1. Federal Unsubsidized Loan
2. Federal Subsidized Loan
3. Federal Perkins Loan
4. Federal Parent or Graduate PLUS Loan
5. Federal Pell Grant
6. Federal SEOG

Return of Title IV federal funds may result in the student owing the College. If a balance due is created, a registration block will prevent future registration until it is paid.

Placement for English and Mathematics

English – EGL 101 Composition I: College Writing is the first part of a required sequence in college essay writing. Students learn to view writing as a process that involves generating ideas, formulating and developing a thesis, structuring paragraphs and essays, and revising and editing drafts. The focus is on the development of critical and analytical thinking.

Students also learn the correct and ethical use of print and electronic sources. At least one research paper is required.

Completing the class with a grade of C or higher is a graduation requirement. Prerequisite(s):

Placement during advisement:

For placement in EGL 101 Composition: College Writing

Date of SAT Exam	Before March 1, 2016	After March 1, 2016
Minimum SAT essay score **OR**	7	5 Writing Subscore
Evidence-Based Reading and Writing Section Score OR	N/A	500 or higher
EGL 097 exit exam grade	Pass	Pass

For placement in EGL 097 Basic Writing Skills

Date of SAT Exam	Before March 1, 2016	After March 1, 2016
SAT essay score **OR**	6 or lower	4 or lower Writing Subscore
Evidence-Based Reading and Writing Section Score OR	N/A	Below 500
FSC Placement Test	Fail	Fail

Placement changes during the first week of class:

All students in EGL 097 and EGL 101 will complete a diagnostic placement exam on the first day of class and may be reassigned to either EGL 097 or EGL 101 based on the results of this exam.

Mathematics – Most first-time students are placed in mathematics courses based upon their performance in high school and on New York State Regents Examinations in Math. A transfer student who has received credit for mathematics courses taken at another college will be placed at the highest Math Placement (MP) level satisfied by either those courses or by the student's high school Regents/ precalculus performance. As explained below, there are some instances where a new student will be required to take the College's placement test in mathematics.*

Mathematics Placement Level	NYS Regents Exam Score, High School Course, and/or Previous College Course	Prerequisite satisfied for entry into:
MP 4	Precalculus (high school) grade ≥ 70 or FSC MTH 117 – Precalculus Modeling for the Life & Social Sciences or FSC MTH 129 – Precalculus with Applications	MTH130: Calculus I with Applications or MTH150: Calculus 1
MP 3	NYS Algebra2/Trig Regents score of ≥ 70 or NYS Math B Regents score of ≥ 70 or FSC MTH 116 – College Algebra	MTH 117: Precalculus Modeling for the Life & Social Sciences or MTH 129: Precalculus with Applications
MP 2	NYS Integrated Algebra Regents Score of ≥ 70 or NYS Math A Regents Score of ≥ 70 or FSC MTH 015 – Elements of Algebra	MTH 102: Elementary Discrete Mathematical Models MTH 103: Sets, Probability & Logic MTH 107: Introduction to Mathematical Ideas MTH 110: Statistics MTH116: College Algebra
MP 1	None	MTH 015: Elements of Algebra (noncredit)

*The following students are required to take the College's math placement exam to determine their mathematics placement level. These students should contact the Admissions office at 631-420-2457 to schedule the exam:

1. Students who graduated from high school more than five years from the time of application for admission and had not passed any college mathematics course at time of application.

2. Students from outside New York who have not taken a NYS Math Regents Examination and who have not passed high school precalculus or any other credit-bearing college mathematics course.

Placement Testing Information: Students who need special accommodations for testing should contact the Disability Services Center at 420-2411 to make a request.

Standardized Testing

A student can obtain college credit by successfully passing standardized tests such as the College Proficiency Examination Program (CPEP), the College Level Proficiency Program (CLEP) and the Defense Activity for Non-Traditional Education Support (DANTES; formerly USAFI). Credit can be obtained in subject areas and for general examination with departmental approval. The student may also receive advanced standing and/or credit for any specific courses (if applicable) taken through the Advanced Placement Program. For further information about these programs and their applicability to the programs at this College, write to the Director of Admissions.

Assignment of Credit Hours

As part of the State University of New York, Farmingdale State College abides by the Credit/Contact Hour Policy (document number 1305) www.suny.edu/sunypp/documents.cfm?doc_id=168 of the State University of New York.

The primary academic measure used throughout the University System is "semester credit hour". In accordance with the SUNY Policy, the semester credit hour has been defined as one 50 minute session of instruction per week including two hours of out-of-class preparation by the student for a semester of not less than fifteen weeks. This basic measure may be adjusted proportionately to reflect modified academic calendars and formats of study. On-line, hybrid courses and other formats of learning should contain the same amount of instruction as provided in a traditional setting and in accordance with the credits assigned. See Provost's website www.farmingdale.edu/administration/provost for detailed description of the College Policy on Credit Hour Assignment.

Credit-by-Evaluation

Matriculated students who are enrolled at the College may apply for and be granted a maximum of 18 credits through Credit-by-Evaluation. A fee of $40 per credit will be charged for each examination and is subject to change without prior notice. Credit may be granted for coursework where the individual has gained knowledge and mastery of the subject matter through life experience or study at non-accredited institutions. The student will be required to verify his/her level of achievement in the comparable course to a member of the Department in which the course is housed. Credit-by-Evaluation is not applicable to internship courses. Credits gained by means of credit-by-evaluation shall be considered full college credits and need not be made up by other courses. However, no Achievement Points shall be awarded for credits gained through evaluation. See Provost's website www.farmingdale.edu/administration/provost for detailed description of the College Policy on Credit-by-Evaluation.

Transfer Credit Evaluation Process

Transfer students must meet curriculum entrance requirements. Official transcripts from all previously attended institutions must be sent to the Admissions Office in order to begin the transfer credit evaluation process. All courses regardless of their mode of delivery will be considered for transfer credit including on-line, hybrid, web enhanced, accelerated, interactive television (ITV) and independent study courses. Any earned degrees must be specifically noted on the transcript.

In addition to courses accepted by Farmingdale State College, students are required to complete the specific requirements of their major and of the College.

1. Accreditation. Courses taken at regionally accredited institutions are more likely to be accepted; credits taken at other institutions will be evaluated on a case-by-case basis.

2. Grades. As a general rule, courses with a grade of C or better will be considered for transfer. However, many majors require a C+ or better in order for a course to satisfy a major requirement. If a course is transferred in with a C, the student will get the credits but the transfer course will not satisfy the requirement of the major and the course may have to be repeated. Most AP tests require a score of 3 or higher.

3. Credit Value. Credits not expressed in semester hours (such as quarter or trimester hours) are factored to give semester hour equivalents. This means that a similar course may not be accepted as equal to one given at Farmingdale College.

4. Transfer Students with Associate Degrees. Students who have earned an associate degree and are admitted to the college are generally awarded full transfer credit for their associate degree coursework. The specific number of credits required for graduation will be determined by the number of courses the student needs to successfully complete to meet the requirements of the College and the major.

5. Transfer Students without Associate Degrees. Credits are awarded on a course-by-course basis.

6. Curriculum Requirements. Only courses required to complete requirements or electives of the major will count toward completion of the major and graduation.

7. Grade Point Average. Farmingdale State College requires that students earn a grade point average of 2.0 or higher to graduate.

For further information on the transfer credit evaluation process, contact the Office of Transfer Services at 631-794-6446.

Military Transfer Credits

Military credits may be granted on a case-by-case basis based upon review of a Military Smart transcript.

Transfer Credit Appeal Process

In the event that a student would like to challenge the evaluation of his/her transfer credits from other colleges and universities into Farmingdale State College, the following appeal process may be followed.

All appeals should include your name, Ram ID #, and a clear explanation as to why you believe the initial response was inappropriate. Any information or evidence provided to justify that the course credit should be transferred would assist in the appeal process. Examples of support include a comparison of topics covered, credit hours, lab hours, sample course syllabi or other material indicating the courses are comparable. Appeals are to be addressed to chairperson of the Admissions and Academic Standards Committee, Farmingdale State College, State University of New York, 2350 Broadhollow Road, Farmingdale, NY 11735.

Course Applicability to Degree Requirements

To assure viability with current technology, a Curriculum Department Chair may evaluate the suitability and timeliness of all curriculum courses, and whether they will satisfy degree and/or certificate program requirements.

Residency Requirement

Candidates for a baccalaureate degree must complete a minimum of 30 of the last 60 credits at the college, with 15 of those credits in the major. At least 9 of the 15 major credits must be taken at the 300/400 level. Associate degree candidates must complete 15 credits of the last 30 credits, and certificate programs require 25% of the course requirements to be taken in residence.

Any exceptions to the final degree credit requirement are at the discretion of the program chair in consultation with their Dean.

Credits earned through approved study abroad or exchange programs may count toward satisfaction of the residency requirements. However, credits earned through advanced standing {e.g., credit by evaluation, advanced placement, etc.) do not fulfill the minimum residency requirements.

Preliminary Academic Deficiency Notification ("Early Warning System")

In keeping with the College's concern that all students be afforded every opportunity to reach their maximum potential, students are notified early each semester if their progress is less than a "C." This "early warning" allows students sufficient time to meet with an advisor and develop a course of action aimed at improving their grades. A variety of support systems are available to assist students as they move toward the completion of their academic goals.

Policy for Repeating Courses (failing grades, minimum required grades, non-attendance, withdrawals)

A student must successfully complete all academic requirements before the College will confer a degree. In cases where a requirement may not be fulfilled with an approved equivalent course, the same course must be repeated to replace a grade that: 1) is failing ("F"), 2) falls below the minimum required by the College or program, 3) indicates non-attendance ("N"), or 4) indicates withdrawal ("W" and "UW").

Students may repeat the same course once (total of two attempts). Additional repeats of the same course may only be authorized by the chairperson of the student's program. Students who do not achieve a satisfactory grade on their second attempt may be subject to removal from certain programs. For more information before repeating a course, students are strongly encouraged to speak with a program advisor or the Academic Advisement and Information Center (631-420-2776 or email advisement@farmingdale.edu).

Please note that both achievement points and credits for all course attempts completed at the College will be applied to the degree. For repeated courses completed at other institutions, only credits and not achievement points will be applied to the degree.

NOTE: A student's financial aid may be affected when repeating courses. For New York State, repeated courses for a previously failed course may be counted in a student's course load until the course is passed. For federal financial aid, it may be counted one additional time if taken to improve a previously passed grade. However, all attempts at passing the course are counted as attempted credits which may affect Pace of Progress (cumulative hours earned divided by cumulative hours

attempted). Please refer to the Academic Standard for Federal Financial Aid and the EOP funding chart found under "Satisfactory Academic Progress for Financial Aid." The Financial Aid Office should be consulted for advice in these cases rather than your academic department. Please note that the regulations for New York State and other aid programs may differ.

Repeating Other Courses

Normally, a student is not permitted to repeat a course he/she has completed and for which he/she has earned a passing grade. In rare instances, a student may have special reason to repeat a passed course. In such cases, a student must have written approval of the Department Chair if a course is to be repeated in order to raise a grade. The most recent grade in the course becomes the official grade for the course. It is the student's responsibility to ensure that they are not unnecessarily repeating a course they have already received credit for.

NOTE: A student's financial aid may be affected when repeating courses, as repeated courses may not be counted in a student's course load for financial aid purposes. Repeated courses for a previously passed course can only be counted once in the student's course load. Please seek the advice of the Office of Financial Aid before consulting with your department chair. State and other program regulations may differ.

Change of Grade

Grades and grade changes are the responsibility of faculty. Grade changes, which are only initiated for extenuating circumstances (such as medical emergencies, death, family emergencies) must be submitted within a timely manner after the conclusion of the semester in question. Appropriate documentation with a clear explanation must be submitted on the approved grade change form for processing with the Registrar. Faculty may submit a grade change within one year from the date on which the grade was issued as long as it is consistent with the College's need to maintain academic standards and the integrity of students records, as well as conform to Federal and State laws. Only an extreme extenuating circumstance (eg., service to the military) may require a change of grade beyond this one year time period. Any such case must be appealed by the instructor to the Faculty Standing Committee on Admissions and Academic Standards for their consultation and approval.

Grade Grievance Procedure

The following procedures serve as a structured mechanism to allow a group of faculty and students within the college community to review a given situation and to arrive at a fair and equitable resolution of the dispute. All official communications about grade appeals are to be sent to students by certified mail with a return receipt or by another written or electronic method for which delivery confirmation is available.

Step 1: A student who contests a grade recorded on the transcript must first discuss the grade with the instructor. This step must be initiated no later than 30 calendar days from the beginning of the academic semester following receipt of the grade. All grade grievances must be based solely on requirements listed on the instructor's syllabus, or the most recent college catalog, or a grade calculation (math) error.

Step 2: If no mutually satisfactory agreement can be reached with the instructor:

■ The student should submit to the instructor's department chairperson* or designated representative, a written statement of the grievances, within seven (7) calendar days of the completion of Step 1. Before any review can be undertaken by the department chairperson, the student shall submit records of evaluations, tests, term papers, projects, and/or any other information from which judgments can be or were made. It is expected that in support of this process, the instructor will provide copies of all appropriate materials.

■ The chairperson shall, within fourteen (14) calendar days of the submission of the grievance, communicate with each party to discuss the problem and collect evidence.

■ The chairperson shall submit a written recommendation to both parties within seven (7) calendar days. Copies of such recommendation shall be maintained by the chairperson.

■ If the chairperson is party to the grievance, the highest ranking senior member of the department shall act in the chairperson's stead.

*Note: The role of the department chairperson may be superseded by a departmental review committee if the department deems it desirable.

Step 3: If no mutually satisfactory agreement has been reached at the completion of the Step 2 process, either party may submit a written statement of appeal with supportive information to the chairperson of the Admissions and Academic Standards Committee. Such appeal must be submitted within fourteen (14) calendar days after receipt of the decision of the department chairperson or representative.

Within twenty-one (21) calendar days after receipt of the written appeal, the chairperson of the Admissions and Academic Standards Committee shall convene and chair a campus appeals committee.

■ The Campus Appeals Committee shall consist of:

  1. The chairperson of the Admissions and Academic Standards Committee, or a member of that committee assigned by the chairperson.

  2. The chairperson of the Faculty Executive Committee, or a member of that committee assigned by the chairperson..

  3. An academic dean, assigned by the Provost, from a school other than that in which the grievance occurred.

  4. The chairperson of the appropriate student governing body of SGA or a member of that body assigned by the chairperson.

■ No member of the committee shall be a member of the department in which the grievance occurred.

■ The department chairperson or representative shall make available to members of the Campus Appeals Committee all information relating to the grievance.

■ The Campus Appeals Committee shall attempt to ascertain all pertinent information. Either party may request or be requested to appear before the committee.

■ The committee shall present its written recommendations to each party of the grievance within fourteen (14) calendar days of the completion of the review. These recommendations could include:

  1. No change in the original grade.

  2. A request for the instructor to reevaluate the original grade. If a reevaluation is requested, the instructor shall have fourteen (14) calendar days to submit a response to the committee.

  3. Credit-by-Examination with fee waived.

Step 4: If the instructor's response or reevaluation is contrary to the consensus of the Campus Appeals Committee, the Committee shall refer the issue to the Admissions and Academic Standards Committee for review with their recommendation whether and how the grade should be revised. The AAS Committee, after review, may authorize that the student's grade be changed. The Committee will determine the final grade to be assigned, after a majority vote of the Committee, at the next scheduled AAS Committee meeting. This decision will be final. Any member of the Campus Appeals Committee that is part of AAS Committee should be excused from the discussion and the voting process. The AAS Committee will inform all parties of the disposition of the case, including the student, in writing.

A written record of the appeal, the Committee's recommendations, and the disposition of the case, shall be kept on file in the Office of the Provost, the Dean of the School in which the grievance occurred, and the academic department.

Incompletes

A grade of "I" (Incomplete) is reported when, for some reason beyond his/her control, the student misses the final examination or has not completed a portion of the required work for the course. The decision to grant an "I" is at the sole discretion of the instructor. No achievement points are awarded for an incomplete All incompletes must be resolved and a change of grade must be submitted no later than 30 days after the beginning of the next semester (fall to spring, winter intersession to spring, spring to fall, summer session to fall). An instructor may grant an extension of an incomplete (I) grade until the end of the semester by documenting and filing the approved form with the Registrar prior to the conclusion of the 30 day period. Any incomplete (I) grade not finalized or not extended by the instructor within the 30 day time period mentioned above will automatically be changed to an "F." An Incomplete does not constitute successful completion of a prerequisite.

Computer Literacy Requirement

To meet the diverse needs of its programs, and in the spirit of providing a liberal education to all students, the college requires the use of the computer be integrated into each curriculum.

Requirements for Graduation

1. Recommendation of the faculty.
2. Satisfactory completion of the minimum number of credits required by the specific major.
3. Satisfactory completion of dual major or academic minor (if pursuing either) requirements must be completed at the same time as graduation certification of the major.
4. A 2.0 cumulative achievement average.
5. Satisfactory completion of the General Education requirements; EGL 101 with a grade of C or better; EGL 102 with a grade of C or better; as required in baccalaureate programs; and, a Writing Intensive course with a grade of C or better.
6. All outstanding incomplete grades must be resolved; degree is awarded in the term the grade is finalized (Fall, Spring or Summer semesters).

Procedure for Degree Candidates

Student "Intent-to-Graduate" forms must be filed in the Registrar's Office no later than eight weeks prior to the intended date of graduation. Students failing to file by the deadline cannot be considered for graduation scholarships and achievement awards. In addition, such students will not be listed in the Commencement program, nor will they receive information regarding graduation activities.

Commencement Ceremony Attendance Policy

- Students graduating in the fall semester will only be allowed to attend the winter (December) ceremony.
- Students graduating in the spring and subsequent summer semester will only be allowed to attend the May commencement ceremony.

Commencement dates can be found online on the academic calendars at www.farmingdale.edu/academics/academic-calendar.shtml.

Times for commencement ceremonies will be announced on the commencement site at www.farmingdale.edu/commencement/index.shtml.

Amnesty Policy

The Amnesty Policy applies to returning students who have not attended any college on either a full-time, part-time, matriculated, or non-matriculated basis for a minimum period of four years immediately prior to reentry to Farmingdale, and the student's GPA must be below 2.0. Under amnesty, all prior grades will be excluded from subsequent GPA calculations but will remain on the student's transcript along with all previous coursework. The GPA will begin at the time that studies are resumed.

Courses in which grades of C or better were earned will be counted towards graduation.

To qualify for amnesty the student must be matriculated and have completed six credits per semester for two consecutive semesters excluding winter and summer sessions, upon returning to the college, maintaining a B average during this time with no grade below a C.

The recomputed GPA under this amnesty policy cannot be used to qualify for any academic honors other than that of the Dean's or President's lists, and an application for amnesty can be made only once. The student must file a formal petition, as follows, in order for amnesty to be considered:

After the student has met the requirements for eligibility under amnesty as stated above, the student will file an application with the chair of the Admissions and Academic Standards Committee at least one semester prior to graduation. Upon verification of the student's eligibility under amnesty, the Chair of AAS will so notify the registrar.

The above policy will not supersede the College's Admissions Policies, specific Curriculum Department requirements, or financial aid guidelines.

Guidelines for Awarding Two Degrees Concurrently or Consecutively

A student who desires to create a varied educational background may do so by seeking to graduate with two significantly different degrees (Dual Degrees) or to major in two disciplines at the same level of degree (Dual Majors). Students interested in these opportunities are directed to the following descriptions and guidelines.

Dual Degrees

Under certain circumstances, a student may pursue a second degree of the same level either concurrently or consecutively. A student seeking to earn two degrees must meet the admission requirements of both degree areas as listed in the College catalog and must receive advisement from the academic department responsible for the second discipline. Further, these programs must lead to two significantly different academic objectives. Once accepted, the student must satisfactorily complete the program requirements of both degrees, the resident credit requirement and the general education core requirements. At a minimum, an additional 30 credit hours must be completed in the second degree area which are significantly different from the first degree.

Students seeking to earn two degrees must seek advisement from the Department Chair of the second degree.

Students completing a dual degree must file an "Intent to graduate" form for BOTH degrees in order to receive two separate diplomas.

Dual Majors

A student wishing to major in two disciplines at the same degree level (i.e., associate or baccalaureate) concurrently would be awarded a single degree based on the primary major. The student must meet all the admission requirements for both majors as listed in the College catalog and must receive advisement in the second area from the academic department responsible for the second discipline. The student must complete all major, resident credit and general education core requirements of the primary major. Once accepted, the student must meet the course requirements of the second major as defined by that academic department. Both majors will be listed on the official transcript and diploma. ***Note:*** *The dual major option may not apply to all curricula.*

Students seeking to earn two majors must seek advisement from the Department Chair of the second major.

Academic Minors

Farmingdale State College students are invited to enhance their studies with an "Academic Minor." A minor is a cluster of thematically related courses drawn from one or more departments. In addition to department based minors (e.g. computer programming & info systems), interdisciplinary minors are also available (e.g. legal studies).

Academic minors are approved by the College-Wide Curriculum Committee and the Provost. Students must make application for an academic minor through the department offering the minor in conjunction with the Registrar's Office. Specific course work must be determined in consultation with a faculty member in the department offering the minor. A statement of successful completion of the academic minor will appear on the student's transcript at the time of graduation.

The following requirements must be satisfied for approval of the minor:

- A minor is considered to be an optional supplement to a student's major program of study.
- Completion of a minor is not a graduation requirement and is subject to the availability of the courses selected. However, if the requirements for a minor are not completed prior to certification of graduation in the major, it will be assumed that the minor has been dropped. Consequently, the student will only be certified for graduation in their primary major.
- Only students in 4 year baccalaureate programs can apply for a minor.
- A minor should consist of 15 to 21 credits, with the exception of the Chemistry minor and Air Force ROTC minors which require 22 credits.
- At least 12 credits must be in courses at the 200 level or higher.
- At least 9 credits must be residency credits.
- Specific requirements for each minor are determined by the department granting the minor.
- Students must maintain a minimum cumulative GPA of at least 2.0 in their minor. Some minors may require a higher GPA.
- Students are prohibited from declaring a minor in the same discipline as their major (e.g. one cannot combine an applied. math minor with an applied math major). **Academic minors may not apply to all curricula.**
- Students are permitted to double-count courses.
- Students are only permitted to take more than one minor with appropriate written approval of their department chair or curriculum Dean.

Valedictorian Award

The College shall recognize one student as valedictorian for each of its annual Fall and Spring Commencement ceremonies. The standards for selection are as follows:

1. Must be a potential candidate for graduation

2. Must be in a 4 year program

3. Must currently have a 3.9 GPA or higher

4. Transfer students must have no more than 48 transfer credits

5. Good Standing and no pending restrictions

Additionally to be considered for this award, the student shall have achieved an outstanding academic record along with notable service to the College and/or the community. Potential graduates in the fall must complete degree requirements at the end of the Fall semester. Potential graduates in the Spring and subsequent summer semesters must complete degree requirements by the end of each respective semester.

The Dean's List and President's List

Full-Time Students

The Dean's List is an indicator of high academic achievement earned by full-time matriculated students who obtain an average of 3.30 or better. The President's List recognizes full-time, matriculated students who distinguish themselves by attaining an average of 3.75 or higher. Students who have failures, incompletes, or "D, D+, W, UW or NA" grades are ineligible for Dean's List or President's List designation. The Dean's and President's lists are finalized by the Registrar's Office once all grades are entered and calculated at the end of each semester,

and are entered on the student's permanent record.

Part-Time Students
Dean's List or President's List candidates can also be currently enrolled part-time students who apply and are accepted for matriculation into a degree program and have completed a minimum of eighteen (18) credits in a maximum of three (3) consecutive semesters. The summer session will be considered a semester for this purpose. They must also have earned an average of either 3.30 or 3.75 or better.

No failing, incomplete, "D, D+, W, UW or NA" grades are allowed during the period of consideration. A semester consisting of all "W" grades counts as a semester and will eliminate a student from consideration for either list. Normally, three consecutive semesters involve fall and spring semesters. However, if a summer session is taken, it is then calculated within the consecutive semester's evaluation.

Latin Honors - Degrees of Distinction

Degrees of distinction are conferred upon candidates for the baccalaureate degree who meet the College residency requirement and achieve the GPA standards below. The College recognizes these potential distinctions during commencement exercises every semester. The official distinction will be documented on the student's record once final grades/graduation evaluations have been completed in the semester for which the student applied for graduation. Latin honors will also be documented on the student's diploma.

Achievement standards for Latin Honors are:

Summa cum laude: 3.9+
Magna cum laude: 3.7+
Cum laude: 3.5+

Student Awards for Academic Excellence

Each year FSC bestows "Awards for Academic Excellence" on two students in each major who have been selected by their faculty as truly outstanding. The primary consideration for selection is the student's overall grade point average in coursework completed at Farmingdale. Additional consideration is given to exceptional performance in areas including research, internships, special student projects, and contribution to departmental clubs and honor societies. Students eligible for this award are those who have completed the requirements to receive the Student Award For Academic Excellence within the 12 month period prior to Commencement. A minimum average of 3.20 is required. The students must be in good standing at the College and have no pending restrictions on their records.

Honor Societies

Alpha Phi Sigma
Alpha Phi Sigma is the only National Criminal Justice Honor Society for Criminal Justice majors. The society recognizes academic excellence of undergraduate, graduate students of criminal justice, as well as juris doctorate students. Students at Farmingdale must have declared the Criminal Justice Security Systems bachelor program as their major, have a minimum cumulative grade point average of 3.2, and a minimum criminal justice grade point average of 3.2. Additionally, students must have completed at least 36 credits, and of those, 16 credits would be criminal justice courses. Students must be within the top 35% of their class.

For more information, please go to: www.alphaphisigma.org.

Beta Beta Beta
Beta Beta Beta (Tri-Beta) is a National Honor Society in Biology. Tri-Beta is dedicated to improving the understanding and appreciation of biological study and extending boundaries of human knowledge through scientific research. The Society strives to cultivate intellectual interest in the natural sciences and to promote a better appreciation of the value of biological study. The Farmingdale Chapter, Chi Delta Eta, was established in 2015. Chapter programs include guest speakers, reports of research by members and faculty, field trips, community service, and social gatherings.

To be eligible for membership consideration, students must have a minimum GPA of 3.2 in Bioscience or a related discipline. For more information, please visit www.tri-beta.org.

Chi Alpha Epsilon
Chi Alpha Epsilon is a national honor society dedicated to recognizing the academic achievements of students admitted to colleges and universities through non-traditional criteria. Its purpose is to promote continued high academic standards, foster increased communication among members, and honor the academic excellence of those students admitted to college via developmental programs. Gamma Eta is the local chapter chartered at Farmingdale State College on December 6, 2001.

To be eligible for membership consideration, students must hold a minimum cumulative grade point average of 3.0 for two (2) consecutive, full-time semesters and have been admitted to Farmingdale State College through the Educational Opportunity Program. National link: www.chialphaepsilon.org.

(Eligible alumni who have graduated with a 3.0 or better cumulative grade point average, prior to the formation of a campus chapter, may also be considered for alumni membership.)

Application forms may be obtained from the Educational Opportunity Program office.

Chi Gamma chapter of Sigma Theta Tau International (STTI) the Honor Society of Nursing
The Chi Gamma chapter of STTI at Farmingdale State College supports the mission and vision of the parent organization to celebrate nursing excellence in scholarship, leadership, and service. The Chi Gamma chapter works to develop a community of nurses dedicated to making a difference in health locally, through regional activity, and global networking.

Membership is by invitation to baccalaureate nursing students who demonstrate excellence in scholarship and service. Students enrolled in the baccalaureate track who have completed one-half of the nursing curriculum and are within the upper 35% of their class are eligible. Students need faculty recommendation to complete the application.

In addition, nurse leaders outside the Farmingdale community who have earned at least a baccalaureate degree are eligible for membership in the Chi Gamma chapter.

The STTI link is www.nursingsociety.org.

Epsilon Pi Tau
An international honor society for professions in technology, Epsilon Pi Tau recognizes academic excellence of students in fields devoted to the study of technology and the preparation of practitioners for the technology professions. In addition to a recognition program that extends through members' careers and beyond, Epsilon Pi Tau continually seeks to serve, support, and strengthen the technology professions through

publications, conferences, thought leadership, and alliances with corporations, professional associations, government agencies, and non-governmental organizations.

To be eligible for consideration, students must meet criteria as established by the honor society. Information may be obtained at www.epsilonpitau.org.

Applications for membership will be mailed to eligible students, which is sponsored by the Dean's Office, School of Engineering Technology.

Golden Key
Golden Key is a mission-focused, values-based and demographics-driven organization. With 30 years of rich tradition, Golden Key remains committed to scholarship, career development, leadership and service. Our mission defines who we are; our core values provide us guidance in executing our activities; and our history reminds us that nearly two million members are counting on us to shape the future through our strategic planning process.

To be eligible for consideration, students must meet criteria as established by the honor society. Information may be obtained at www.goldenkey.org

Applications will be mailed to eligible students.

Lambda Pi Eta
Lambda Pi Eta is the honor society of the National Communication Association for four-year institutions of higher education. Lambda Pi Eta represents the first letters of what Aristotle described in Rhetoric as the three modes of persuasion: logos, pathos, and ethos. The official colors of Lambda Pi Eta are crimson to represent the Communication discipline and silver in recognition of speech and oratory skills. The purpose of the honor society is to promote outstanding academic achievement in the Communication discipline. To be eligible for membership, undergraduate students must have completed 60 semester credit hours, have a minimum overall cumulative GPA of 3.0 and rank within the top 35% of their class in the major, have completed at least 12 semester credit hours in Communications studies with a GPA of at least 3.25, and be enrolled in good standing.

Omicron Delta Epsilon
Omicron Delta Epsilon (ODE) is an International Honor Society in Economics. Its objectives are: (1) to confer distinction for high scholastic achievement in economics; (2) to stimulate and promote student interest in all aspects of economics; (3) to publish an official journal to be entitled "The American Economist"; and (4) to sponsor the Fisher-Taussig Award Competitions. Membership is opened to students who satisfy the following criteria: (1) in residence at least one semester, with a major or minor in economics; (2) twelve semester (term) hours of economics, and (3) an average of B or better and a class standing in the upper one-third. Application forms are available at the Department of Economics.

Phi Alpha Theta
Phi Alpha Theta is the National History Honor Society that recognizes academic distinction for students interested in the field of history. Less than 1% of students attending the college qualify for membership in this society. The mission of Phi Alpha Theta is to promote the study of history through the encouragement of research, good teaching, publication and the exchange of learning and ideas. We bring students and faculty together for intellectual and social exchanges that promote research, presentations and publications by our members in a variety of ways. The faculty officer will invite students who have

a GPA of 3.0 overall and have completed four history courses with a GPA of 3.1 to join Alpha-Omicron-Iota, the Farmingdale chapter of Phi Alpha Theta. Application forms are available at the Department of History, Politics, and Geography.

Phi Theta Kappa
One of the highest honors a Farmingdale student may receive is election to Phi Theta Kappa, the National Junior College Honorary Scholastic Society. Mu Omega is the local Farmingdale chapter.

To be eligible for consideration, students must be matriculated in an associate degree program, have completed a minimum of 16 credits, and have achieved a minimum cumulative average of 3.5. Students will not be accepted for membership after they have completed degree requirements. National link: www.ptk.org. Applications will be mailed to eligible students.

Psi Chi
Psi Chi is the International Honor Society in Psychology, founded in 1929 for the purposes of encouraging, stimulating, and maintaining excellence in scholarship, and advancing the science of psychology. Psi Chi is the oldest surviving student organization in psychology. Psi Chi sponsors student paper readings at regional and national meetings; presents programs at regional and national meetings; presents graduate, undergraduate, chapter, and faculty awards; and publishes a quarterly newsletter. Each year, through its local chapters, Psi Chi is responsible for hundreds of other academic activities, social functions, and acts of community service among its student members. The Farmingdale Chapter was established in 2011. To become a member of Psi Chi students must be registered in the Applied Psychology program; have second-semester, Sophomore status; have completed 9 semester hours in Psychology; have a minimum GPA of 3.0 and be ranked in the top 35% of their overall class.

For more information, please go to: www.psichi.org Applications can be completed online. Acceptance/induction occurs in the spring semester only.

Sigma Beta Delta
The purpose of Sigma Beta Delta is to encourage and recognize scholarship and achievement among students of business, management and administration, and to encourage and promote personal and professional improvement and a life distinguished by honorable service to humankind. To be eligible for membership, a business management, business computer systems and sport management student must rank in the upper 20 percent of the junior or senior class, have earned 30 credits at the college and be invited to membership by the faculty officers. Faculty officers operate the Sigma Beta Delta chapter for the mutual benefit of students. Farmingdale State College's Business Management Bachelor of Science degree sponsors a chapter of Sigma Beta Delta.
National link: www.sigmabetadelta.org.

Sigma Phi Alpha
Sigma Phi Alpha is a National Dental Hygiene Honor Society that promotes and recognizes scholarship, service, and leadership among students and graduates of dental hygiene educational programs. The local component chapter at Farmingdale State College is Alpha Mu. To be eligible for membership, students must rank within the top 10 percent of either the sophomore class for the Associate Degree or the senior class for the Bachelor Degree. Membership in the society is offered by the faculty officers of the society.

Grades and Transcripts

Approximately two weeks after the end of each semester, grades are posted on students' records. Students are expected to view their grades online. Those with an outstanding financial obligation to the College will not be able to access their grades until the financial obligation has been satisfied (for details contact the Student Accounts Office). If you wish to have a copy of your "official" transcript sent to a third party, an "Official Transcript Request Form" must be completed which can be obtained on the College's website at www.farmingdale.edu.

Registrar's Office

The Office of the Registrar, located in Laffin Hall, is responsible for student registration, processing official and unofficial transcripts, class scheduling, posting grades and degrees on students' records, and verifying enrollment for all students, including veterans.

DegreeWorks

DegreeWorks is an accessible and user-friendly advisement tool. It provides students with an organized outlook degree plan evaluation. It is aimed to help the student progress through his or her degree plan efficiently. DegreeWorks compares the student's academic history with the degree requirements outlined in the College catalog. The student can use it to track their academic progress toward a degree, review the requirements they have completed and plan the courses they can take to complete their remaining requirements. To log into DegreeWorks go to:
www.farmingdale.edu/registrar/degree-works

Any questions regarding DegreeWorks please email degreeworks@farmingdale.edu.

Employment Placement and Graduate Education Information

The Office of Institutional Research issues an annual report on the employment placement of graduates and on graduates who continue their education. The report contains information by curriculum about colleges where graduates continued their education, as well as places of employment. The report is available on the Office of Institutional Research webpage. For further information, please email oir@farmingdale.edu.

Attendance and Lateness in the Classroom

Each instructor shall determine the attendance and lateness policy for his/her class.

To maintain the highest quality of academic work, regular class attendance is necessary. Absence and/or lateness from class are considered serious matters and never excuse a student from classwork. A student must complete all assignments, examinations, and other requirements of any course to receive credit.

At the beginning of the semester, the instructor will explain the attendance and lateness policies for the course in relation to meeting course requirements. It is not incumbent upon the instructor to give make-up work, quizzes or examinations in the case of absence or lateness.

When clinical or laboratory experiences are scheduled in off-campus facilities, each student is required to provide his/her own transportation to these facilities. Lack of transportation cannot be considered an excuse for absence or lateness.

Religious Absences and Equivalent Opportunity

Students unable, because of religious beliefs, to attend classes on certain days are protected under the State Education Law as follows:

1. No person shall be expelled from or refused admission as a student to an institution of higher education for the reason that he/she is unable, because of his/her religious beliefs, to attend classes or to participate in any examination, study or work requirements on a particular day or days.

2. Any student in an institution of higher education who is unable to attend classes on a particular day or days shall, because of such absence on the particular day or days, be excused from any examination or any study or work requirements.

3. It shall be the responsibility of the faculty and of the administrative officials of each institution of higher education to make available to each student who is absent from school because of his/her religious beliefs, an equivalent opportunity to make up any examination, study or work requirements which he/she may have missed because of such absence on any particular day or days. No fees of any kind shall be charged by the institution for making available to the said student such equivalent opportunity.

4. If classes, examinations, study or work requirements are held on Friday after four o'clock post meridian or on Saturday, similar or make-up classes, examinations, study or work requirements shall be made available on other days, where it is possible and practicable to do so. No special fees shall be charged to the student for these classes, examinations, study or work requirements held on other days.

5. In effectuating the provisions of this section, it shall be the duty of the faculty and the administrative officials of each institution of higher education to exercise the fullest measure of good faith. No adverse or prejudicial effects shall result to any student because of their availing themselves of the provisions of this section.

6. Any student, who is aggrieved by the alleged failure of any faculty or administrative officials to comply in good faith with the provisions of this section, shall be entitled to maintain an action or proceeding in the supreme court of the county in which such institution of higher education is located for the enforcement of his/her rights under this section.

6a. It shall be the responsibility of the administrative officials of each institution of higher education to give written notice to students of their rights under this section, informing them that each student who is absent from school, because of his or her religious beliefs, must be given an equivalent opportunity to register for classes or make up any examination, study or work requirements which he or she may have missed because of such absence on any particular day or days. No fees of any kind shall be charged by the institution for making available to such student such equivalent opportunity.

7. As used in this section, the term "institution of higher education" shall mean any institution of higher education, recognized and approved by the Regents of the University of the State of New York, which provides a course of study leading to the granting of a post-secondary degree or diploma. Such term shall not include any institution which is operated, supervised or controlled by a church or by a religious or denominational organization whose educational programs are principally designed for the purpose of training ministers or other religious functionaries or for the purpose of propagating religious doctrines. As used in this section, the term "religious belief" shall mean beliefs associated with any corporation organized and operated exclusively for religious purposes, which is not disqualified for tax exemption under section 501 of the United States Code.

School Closing

In the event that inclement weather or other unforeseen circumstances necessitate the cancellation of classes and/or activities at the College, students are advised to utilize the following media: Radio Stations: (AM) - WCBS[880], WINS[1010], and WHLI[1100]; (FM) - WLNG[92.1], WMJC[94.3], WBAB[95.3 & 102.3], WALK[97.5], KJOY[98.3], 103.1MAXFM[103.1], LINewsRadio[103.9], and WBLI[106.1], as well as Channel 4 and Channel 12 Television.

The following websites can also be utilized: FARMINGDALE.EDU, NEWS12.COM, WBAB.COM, WBLI.COM, WALKRADIO.COM, 1010WINS.COM, WCBS880.COM, KJOY.COM, 1031MAXFM.COM, WMJCFM.COM, LONGISLANDNEWSRADIO.COM, WHLI.COM and NEWSDAY.COM. New York State has implemented the New York State All-Hazards Alert and Notification web-based portal, www.nyalert.gov.
This website contains critical emergency-related information, public instructions, and life-safety public information. Faculty, staff and students may register with SUNY NY Alert, a multiple technology notification service that will notify them of cancellations. Enrollment in NY-alert for Farmingdale State College specific notifications is available on the University Police website or via the Farmingdale State College OASIS webpage.

Farmingdale State College has partnered with a commercial provider of emergency notification services that requires individual enrollment. Enrollment is available at www.getrave.com and select Farmingdale State College.

In order to make up for lost class time, classes that have been canceled may be rescheduled at the discretion of the College. Cancellation of day classes does not necessarily mean that evening classes are also canceled. Students are to assume that classes are in session unless there is an announcement specifically canceling evening classes.

Change of Name and Address

The College reserves the right to discontinue mailing information to any student or former student upon notification from the US Postal Service that the address on record with the College is no longer valid.

Campus Resources & Facilities

Institute for Research Technology Transfer (IRTT)

The Institute for Research Technology Transfer (IRTT) was established in 1996 to support the economic growth of Long Island. The Institute provides local industries with ready access to modern, cost-effective manufacturing systems and faculty at the cutting edge of technology. IRTT's services to small and medium-sized companies include: Partnerships to secure R&D funds and Federal and State funds, collaborative applied research, demonstrations of state-of-the-art technologies to enhance industrial competitiveness, professional consulting and the dissemination of current knowledge and new techniques.

The Memorial Gallery

The Memorial Gallery is an exhibition space located within the Visual Communications Department in Hale Hall. The Gallery plays a vital role in showcasing a variety of designers and artists whose work and careers are relevant to our students' future. The works exhibited represent a wide range of media, cultures, and time periods in the visual arts. The Gallery complements the exhibits with artist lectures, workshops, films, demonstrations, and other educational programs. The Gallery's mission is to enhance the teaching and learning of the visual arts and to serve as a visual and cultural resource to the campus and surrounding community.

Office of International Education and Programs (OIEP)

International Students:
The Office of International Education and Programs (OIEP) provides a variety of services for all International Students. The OIEP supplies accepted International Students with the necessary forms which enable them to attain an F-1 or J-1 student visa.

The OIEP provides counseling and assistance to International Students seeking a change of status or applying for special benefits such as on campus work authorization and Optional Practical Training and Academic Training. The OIEP provides programs for International Students to facilitate their transition to American education and culture.

The OIEP operates as a U.S. Department of Justice-approved program responsible for reporting student status each semester to the U.S. Immigrations and Customs Enforcement (ICE) of the U.S. Department of Homeland Security through the Student & Exchange Visitor Information Systems (SEVIS).

Study Abroad:
The OIEP also serves students who wish to study abroad during their college years. OIEP provides information for Study Abroad programs offered by Farmingdale State College, and other SUNY campuses.

Each year, many students from all over the United States choose to participate in study abroad programs, stepping out of their everyday lives and familiar environs, and expanding their educational experience to new cultures, peoples and landscapes.

SUNY is proud to offer an incomparable array of study abroad opportunities. The State University's Study Abroad program

listings can be found at www.suny.edu/studyabroad.

All students interested in participating in Study Abroad must come through the Office of International Education and Programs (OIEP). For additional information, please contact the Study Abroad Office, Laffin Hall Room 320 or visit the website at www.farmingdale.edu/studyabroad.

Any student participating in a non-SUNY program must do that independently in coordination with their academic department.

Social Science Research Institute

The Farmingdale Social Science Research Institute (SSRI) supports multidisciplinary social science research and community participation that benefits the residents and organizations of the Long Island region and, more broadly, the state, the nation and the world. Farmingdale State College's Social Science Research Institute comprises three centers: the Center for Social Justice, the Center for Civic Engagement and Service, and the Center for Information in the Public Interest. All have the following goals:

- To promote excellence and achievement in an increasingly diverse and interdependent world among students in all four Schools of the College.

- To support the goals of the State University of New York that include equal access to all in health and educational services and opportunities, regardless of race, ethnicity, class, age, religion, gender, disability, or sexual orientation.

- To support research on the achievement of equality, social justice, cultural diversity, and equal access.

- To ensure that students gain the ability to analyze information and recognize the difference between objective facts and didactic opinion.

- To foster social justice and equality in the region through community involvement and individual action.

- To inspire students to increase their community involvement and maintain a lifelong commitment to social equity and justice.

The SSRI is a valuable initiative among many that have expanded Farmingdale State College's commitment to excellence through diversity and multiculturalism at the College and in the region.

Explanation of Objectives

The SSRI enhances the learning environment of students both within and beyond the classroom. In many of their classes, students are motivated to study social problems and work in the field, addressing problems that have aroused their interest and concern.

With its emphasis on general education courses in sociology, anthropology, history, psychology, political science, economics, English literature, and philosophy as well as numerous capstone and experiential courses, the College encourages dedication to social issues.

The SSRI builds on this goal. First, students have opportunities for continuing research. Research, however, must be grounded in accurate information objectively collected and reported. Today this can be especially challenging with omnipresent social media and often confusing and ambiguous propaganda masquerading as twenty-four hour news. The SSRI supports student research, guided by mentors skillful in helping students discern fact from fantasy and experienced in both primary and secondary research practices.

Second, as students emerge from classes with heightened sensitivity to social issues, the SSRI offers opportunities for participation in organizations beyond the campus that serve the community by responding to injustice and deprivation. The SSRI arranges and supervises student and faculty interactions with community-based organizations that invite student interns, volunteers, and others to participate in their organizations. Students graduate from the College not merely with a record of service and civic engagement but rather with a sincere and lifelong commitment of service to others.

Proposed Activities in the Center for Social Justice

Because social justice issues inform all research, projects, activities, and events, the Center for Social Justice is the focus of activity within the Institute. Students understand social justice most effectively at the intersection of the University and the community. Therefore, the Institute supports a variety of programs promoting community involvement along with academic research. Among the areas explored are immigration, education, health and housing, legal inequity, healthcare, environmental justice, and job and housing discrimination.

The Institute promotes excellence guided by ethics in fostering scientific and social advances. Altruism and civic engagement together serve as both the means to human success and the goals of social and technological progress.

The Social Science Research Institute serves as a clearinghouse for all research projects, hosting campus symposia, conferences, workshops, and other events at which researchers, scholars, students, and professionals present and discuss their work.

Institute For Networking Systems Technology and Education Programs

The Institute for Networking Systems Technology and Educational Programs (INSTEP) in the School of Business offers credit bearing and non-credit bearing courses in the latest Networking Technologies. Credit bearing courses are offered cooperatively with the Computer Systems Department. These courses can be used as electives in several bachelor degree programs on campus. They can also be applied toward Network Training Certification as specified by the CISCO Networking Academy, which operates under the Institute. INSTEP conducts campus seminars and workshops in new technology developments in Computer Networking & Communication that are available to both professionals and students. For additional information, contact Alexis Greenidge at M.Greenidge@farmingdale.edu.

Green Building Institute at FSC

The Green Building Institute (GBI) was established in fall of 2010 with a seed grant from the US Department of Education. The main objective of the Institute is to provide support to faculty members of the College in developing curriculum and teaching various aspects of green building and sustainably built environments. To support these activities, the Institute is engaged in faculty development through research, workshops, seminars and conferences. The Institute also helps local high school teachers to develop sustainability related curricula for their students. Further, the Institute develops, organizes, and offers green building related courses for industry and the professions.

Solar Energy Center

Farmingdale State College established its Solar Energy Center (SEC) in 2000. Since then the SEC has offered workshops on Residential Photovoltaic Systems Installation and Maintenance, Advanced Photovoltaics, Solar Thermal and Solar Marketing areas. In addition, SEC has conducted many free public seminars on solar energy. The Solar Energy Center of Farmingdale State College is accredited as a "Training Institution" and "Continuing Education Institution" on solar energy by the Institute of Sustainable Power. This is the first such center to be accredited in the North East and the fourth in the entire USA.

Renewable Energy and Sustainability Center Mission

The mission of the Renewable Energy and Sustainability Center (RESC) is to enhance public awareness of emerging renewable energy resources through a focus on applied research and workforce training in the renewable/sustainable and smart grid technologies. The center is housed in the School of Engineering Technology (SET) and offers complementary training programs in other technology and manufacturing areas to serve the workforce needs of the Long Island.

This mission is achieved through the following objectives:

- Promote applied research in Renewable/Sustainable and Smart Grid Technologies.
- Create a forum for FSC Faculty to develop collaborative research grant proposals in energy related projects and share resources.
- Collaborate with engineering professional societies and local industry as well as the local and regional academic institutions to offer technical seminars and short courses to industry professionals and public in the area of energy, sustainability and engineering education.
- Show case Long Island's first Smart Energy Campus in conjunction with PSEG Long Island, with a focus on smart grid technology, building automation and integration of renewable energy resources.
- Implement live demonstration models emulating customer-owned equipment on renewable energy resources (e.g., wind, solar, plug-in hybrid electric vehicles) with smart grid technology and real time displays.
- Develop "STEM" K-16 student research and training programs for students and teachers, with the goal of integration of energy related projects and curriculum modules into K-16 curriculum.
- Develop certificate-level training programs in renewable energy resources for green technology, power, energy and manufacturing as well as energy security to serve the industry's workforce needs.
- Synergize and incorporate the activities of the Solar Energy Center, Green Building Institute and IRTT into Long Island's Renewable Energy and Sustainability Center (RESC) with focus on solar, small scale wind, geothermal, fuel cell, green data centers, alternative fuel vehicles and smart grids.

Greenley Library

The Library, with seating for 800 students, supplements classroom instruction by providing printed, digital and audio-visual materials for assignment and recreational reading, reference, research, and independent study.

The Library is open six days a week during the academic year. Hours during the academic year are 8:00 a.m. to 9:00 p.m. on Monday through Thursday, 8:00 a.m. to 5:00 p.m. on Friday, and 9:00 a.m. to 5:00 p.m. on Saturday. Holiday, intersession, and summer hours are posted at the appropriate times.

Librarians provide reference services and instruction for the individual reader, prepare bibliographies for specific subject areas, and, in its new state-of-the-art Information Literacy Lab, offer Information Literacy instruction in the use of the Library, proper research procedures, and the management and evaluation of information.

The Library's online catalog provides access to not only its own collection but also to the collections of all 64 SUNY campus libraries. Open stacks permit browsing through the circulating collection of over 100,000 volumes. Students and faculty have access to material not owned by the Library through the Library's interlibrary loan service; the SUNY Open Access Program, which allows students and faculty to directly borrow materials from all 64 SUNY libraries; the SUNYConnect program, which allows patrons to do an online request to have any of the over 18 million volumes in the SUNY libraries delivered to Farmingdale within 72 hours for their use; and the LILRC Research Loan Program, which allows students and faculty to do research in specific subject areas at most libraries on Long Island. The Library has a collection of about 550 print journals, including an extensive collection on microfilm. Access to these journals is provided approximately 100 web-based index/abstract databases. The full-text journal databases that the Library subscribes to provide access to over 41,000 full-text journal titles. The Library also provides access to approximately 80,000 e-books through Ebrary and Ebsco. All of these databases are available to students and faculty from any computer on campus and also from home through the library's remote database service. The librarians who oversee the various collections in the library — circulating books, reference, audio/visual, and serials — work closely with the faculty in the academic departments on collection development, that is both the acquiring of new material and the weeding of old material.

The Library has been designated as a virtual depository for the federal government documents and has a large collection of audio-visual materials, along with viewing and listening equipment.

Instructional Technologies Support Center (ITSC)

The Instructional Technologies Support Center assists faculty in integrating emerging and existing instructional technologies into their curriculum. Support options range from design and development consultation and training to digital media production. ITSC staff presently design, install, and maintain the College's Technology Enhanced Classrooms offering orientation seminars and emergency technical support. The Center manages the distribution and maintenance of all general-use video, audio support and computer display equipment as well as instructional media equipment installed in all lecture halls and media viewing facilities. With both C and Ku-band dishes, the ITSC has the ability to downlink, record and/or distribute satellite programming throughout the campus.

Acceptable Use Policy for Computer Facilities

Introduction

This policy is designed to guide students, faculty, staff and others in the acceptable use of computer and information systems and networks provided by Farmingdale State College. More importantly, it is meant as an application of the principles concerning the use of the network in a legal, ethical, collegial and nondestructive manner.

Guiding Principles

The Farmingdale State College community is encouraged to make innovative and creative use of information technologies in support of education and research. Access to information representing a multitude of views on current and historical issues should be allowed for the interest, information and enlightenment of the Farmingdale State College community. Consistent with other University policies, this policy is intended to respect the rights and obligations of academic freedom. The College recognizes that the purpose of copyright is to protect the rights of the creators of intellectual property and to prevent the unauthorized use or sale of works available in the private sector. Also consistent with other College policies, an individual's right of access to computer materials should not be denied or abridged because of race, creed, color, age, national origin, gender, sexual orientation, or disability.

The College cannot protect individuals against the existence or receipt of material that may be offensive to them. As such, those who make use of electronic communications are warned that they may come across or be recipients of material they find offensive. Those who use e-mail and/or make information about themselves available on the Internet should be forewarned that the University cannot protect them from invasions of privacy and other possible dangers that could result from the individual's distribution of personal information.

Responsibilities

Farmingdale State College reserves the right to monitor its computing resources to protect the integrity of its computing systems, workstations, and lab facilities. Users are responsible for all use of their computer-related accounts (including but not limited to automated, online and system accounts). They should make appropriate use of the system and network-provided protection features and take precautions against others obtaining access to their computer resources. Individual password security is the responsibility of each user. Abuse of computer resources is prohibited. Abuse includes, but is not limited to:

- Using the network for personal profit.
- Attempting to intentionally interfere with the performance of the network
- Interfering with the legitimate work of other users.
- Accessing another individual's account, private files, or e-mail without permission of the owner.
- Misrepresenting one's identity in electronic communication.
- Unauthorized copying or transmission of software.
- Abusing any interconnected network such as the Internet.
- Using the network to attempt to violate any connected computer system's security.
- Using the network to spread computer viruses, trojan horses, worms or any program designed to violate security, interfere with the proper operation of any computer system or destroy another user's data.
- Disobeying lab and system policies, procedures, and protocol.
- Using computing resources to threaten or harass others.
- Using computing resources to propagate electronic chain letters.
- Using computing resources for extensive or competitive recreational game playing. (Recreational game players occupying a seat in a public computing facility must give up the use of the work station when others who need to use the facility for academic or research purposes are waiting.)
- Using the network in a manner that violates any federal, state, or local law.

Administration and Implementation

The College encourages all members of its community to use electronic communications in a manner that is respectful to others. While respecting users' confidentiality and privacy, the University reserves the right to examine all computer files.

The College takes this step to enforce its policies regarding harassment and the safety of individuals; to prevent the posting of proprietary software or electronic copies of electronic texts or images in disregard of copyright restrictions or contractual obligations; to safeguard the integrity of computers, networks, and data either at the College or elsewhere; and to protect the College against seriously damaging consequences. The College may restrict the use of its computers and network systems for electronic communications when faced with evidence of violation of College policies or federal or local laws. The College reserves the right to limit access to its networks through College-owned or other computers and to remove or limit access to material posted on College-owned computers.

All users are expected to conduct themselves consistent with these responsibilities and all other applicable College policies. Abuse of computing privileges will subject the user to disciplinary action, as established by the applicable operating policies and procedures of the College. Abuse of networks or computers at other sites through the use of Farmingdale State College resources will be treated as an abuse of computing privileges at the College.

When appropriate, temporary restrictive actions will be taken by system or network administrators pending further disciplinary action. The loss of computing privileges may result.

When a user ceases being a member of the campus community (e.g., withdraws, graduates, or terminates employment, or otherwise leaves the university), or is assigned a new position and/or responsibilities within the State University system, his/her access authorization will be reviewed. A member of the campus community may not use facilities, accounts, access codes, privileges or information for which they are not authorized in their new circumstances.

Farmingdale State College recognizes that all members of the college community are bound by federal and local laws relating to civil rights, harassment, copyright, security and other statutes relating to electronic media. It should be understood that this policy does not preclude enforcement under the laws and regulations of the United States of America, the State of New York, the State University of New York or SUNY networking contracts.

Violations

Policy violations by students will be handled in accordance with the Student Code of Conduct and referred to the Dean of Students or designee for disciplinary action as appropriate.

Policy violations by College employees will be referred to the head of that employee's department and handled in accordance with disciplinary actions set forth in the Professional Handbook or other appropriate document.

In addition, illegal acts involving Farmingdale State College's computing resources may also subject users to prosecution by state and/or federal authorities.

Barnes & Noble Campus Bookstore

A college bookstore, operated by the Barnes and Noble Corporation, is located in The Campus Center for the convenience of the entire College community. The bookstore carries required and recommended textbooks, instructional materials, supplies, clothing, and sundry items. The bookstore is open Monday, Tuesday, Wednesday and Thursday from 9:00 a.m. to 6:00 p.m and Friday from 9:00 a.m. to 2:00 p.m. throughout the academic year.

B&N offers textbooks in digital format and under a textbook rental program. B&N continues to offer new and used textbooks as well. These options allow students to consider all costs alternatives when purchasing their required textbook materials.

"Textbook Express" is available for students to reserve their textbooks at the bookstore. "Textbook Express" allows students to reserve their textbooks online when students are registering for their classes online. The option to access "Textbook Express" is available via the online registration process through the students Oasis account. All available purchase options available for textbooks is indicated, i.e. new, used, digital, rental.

For the hours of operation during winter session, summer session and vacations, please call the Bookstore at 631-249-3048. Extended hours are offered during registration and during the first week of classes. For additional information, visit the Farmingdale State College Bookstore website at www.farmingdale.bncollege.com.

Auxiliary Service Corporation

The Auxiliary Service Corporation (ASC), with administrative offices located in Laffin Hall, is a not-for-profit educational corporation. The general purpose of ASC is to establish, operate, manage, and promote educationally related services for the benefit of the College's faculty, staff and students in harmony with the educational mission and goals of the College.

The Auxiliary Service Corporation provides the following campus services through contractual arrangements: food services for both commuting and resident students, faculty and staff; a bookstore operation; vending machines; laundry, washer and dryer services, and student health insurance.

The Corporation directly provides various student services such as: limited check cashing, FAX service, ID replacement, and emergency student loans.

The Auxiliary Service Corporation as a fiscal agent provides accounting services for: Farmingdale Student Government, Trust and Agency Accounts, Alumni Association and the Farmingdale College Foundation.

For additional information, visit the Auxiliary Service Corporation website at www.farmingdale.edu/administration/administration-finance/auxiliary-service-corporation.

Children's Center

Monday – Friday Year Round
7:30 a.m.— 5:30 p.m.
The Children's Center at Farmingdale State College provides child care services to the children of students, faculty and staff. Priority is given to students who are taking at least 6 credits per semester. Fees are calculated according to income on a sliding scale fee for students and a discounted rate for campus faculty and staff. Students may also be eligible for the SUNY Block Grants when they are available.

The Children's Center is a new state of the art facility with multiple outdoor play areas including an indoor gym. The Center cares for children ages eight weeks to five years. The Center utilizes the Creative Curriculum in all classrooms and follows appropriate developmental practices. Children engage in learning activities throughout the day and enjoy the outdoors twice daily. Two healthy snacks are included daily. The children engage in activities sponsored by the College as well as enjoy the campus grounds for walks.

During the summer, The Children's Center also has a summer camp program for children. For more information regarding summer camp and The Children's Center, please call 631-420-2125 or visit www.farmingdale.edu/childcare.

Small Business Development Center

In 1984, the State University of New York entered into an agreement with the United States Small Business Administration to establish Small Business Development Centers (SBDCs).

The Farmingdale State College SBDC delivers one-on-one counseling, training, and technical assistance in all aspects of small business management. Its services include, but are not limited to, assisting small businesses with financial, marketing, production, organization, and feasibility plans. One-on-one counseling is available at no cost to anyone interested in starting, improving, or expanding a small business.

The certified Business Advisors take a personal interest in assisting entrepreneurs realize their business goals. The Advisors continually participate in training programs to ensure that their business skills and knowledge are current. Additionally, the Advisors of the SBDC are supported by the SBDC Research Network, one of the most comprehensive and sophisticated business resource libraries in the United States.

Since the inception of the Farmingdale State College SBDC in 1985, the expert advisors of the Farmingdale SBDC have worked directly with 31,528 businesses, helping them to invest $431,071,926 in the area's economy and to create or save 17,990 jobs. These numbers demonstrate that the Farmingdale State College SBDC clearly has a strong economic impact on Long Island.

The Farmingdale State College SBDC's goal is to help entrepreneurs, businesses, and industries become more productive and profitable. By assisting new and existing businesses, the SBDC contributes to the greater economic development of Long Island and New York State. Interested individuals, businesses, or industries may contact the SBDC at 934-420-2765 or visit the SBDC website at www.farmingdale.edu/sbdc. The hours of operation are Monday through Friday, 8:30 a.m. to 4:30 p.m.

Alumni Association

The Alumni Association, a non-profit corporation, provides a positive link between graduates and the College. It also provides ongoing services and programs for students, faculty and staff. The Alumni website (www.farmingdale.edu/alumni) and monthly e-newsletter, disseminates relevant information to Alumni. Services to current Farmingdale students include several scholarships, student and club awards, reunions, cultural programs, career workshops and support of other College programs. Also offered are group insurance plans, a discount buying service and use of many College facilities.

Farmingdale College Foundation

The Farmingdale College Foundation is a non-profit corporation established to provide financial assistance to the College for projects not funded by the State Budget. Its board of directors comprises distinguished corporate and community leaders, as well as college representatives. The Foundation supports on-campus programs; sponsors fund-raising projects; and administers private gifts and endowments to support student scholarships, faculty development awards and campus enhancements.

The Long Island Educational Opportunity Center (LIEOC)

The Long Island Educational Opportunity Center is designed to provide tuition-free, non-degree education for educationally and economically disadvantaged persons who are not attending secondary schools, and who are not eligible for admission to college. Students who enroll in Long Island Educational Opportunity Center courses to complete high school diploma requirements are encouraged to qualify for college admission and/or gainful employment through continuation of coursework in vocational or college preparatory programs.

The Long Island Educational Opportunity Center offers GED and college preparatory courses in communications skills, mathematics and science; English as a Second Language for the foreign-born; vocational skills training and upgrading in business office skills; and home care provider and nurse assistant programs.

The Center further serves the community through various public service programs such as internships or on-the-job training programs with local businesses and industry. It works with community agencies, local employers, and higher education institutions by serving people who desire academic upgrading or vocational skills development.

The Center provides academic and counseling services at three locations: 269 Fulton Avenue, Hempstead 631-489-8705; 1090A Suffolk Avenue, Brentwood 631-434-3740; and Hooper Hall on the Farmingdale campus 631-420-2280.

Many Long Island Educational Opportunity Center students are also prime college referrals to the Educational Opportunity Programs (EOP) sponsored by New York State at many State University of New York campuses, and Higher Educational Opportunity Programs (HEOP) at private independent colleges and universities.

Institutional Advancement and Enrollment Management

The Office for Institutional Advancement is responsible for student recruitment, enrollment management, and marketing communications, including the college website, graphic design, and print and electronic publishing. Institutional Advancement also oversees the Admissions Office, Transfer Services, advertising, media relations, government relations, brand management, and new media. Recruitment materials are created to provide a clear understanding of Farmingdale's mission and academic offerings, and to reinforce a consistent college brand. Campus and external communications are coordinated to ensure that an accurate and positive image of the campus is maintained.

Office of Business Outreach

Farmingdale State College, as the first public institution on Long Island, has shown its commitment to the community, and especially to business and industry by providing comprehensive adult learning services of the highest quality for more than eighty years.

The Office of Business Outreach helps develop business partnerships with local industries to address the needs of both large and small corporations throughout Long Island and beyond.

At Industry Forums, CEOs share their requirements regarding the training and retraining of their employees, and information that will allow the College to restructure its curricula to better prepare students for a seamless transition from the classroom to the workplace. Farmingdale State College also addresses the needs of the private sector by offering custom designed training programs for corporate employees.

Likewise, the College and its corporate partners offer students the opportunity to gain valuable "hands-on" experience in actual work situations by means of internships, job shadowing, offered by local businesses. These applied learning opportunities assure careers for the College's graduates, and provide employers a highly trained employee pool from which they can draw to guarantee the success of their business.

For additional information, contact the Office of Business Outreach at 631-420-2246.

Because an educated citizenry forges the social, political and economic vitality of the region, the state, and the nation, the College is proud to provide opportunities for lifelong learning. Specific services provided by the Office of Business Outreach include:

Coordination of Corporate Training

Responding to the educational needs of corporate Long Island, the Office of Business Outreach helps provide programs aimed at keeping the region's business and industry globally competitive. High-quality programs in the fields of computer technology, lean, six sigma, manufacturing, business and management are presented throughout the year. The Office also helps coordinate customized training programs to meet the specific educational needs of a company. These programs, which are designed with the cooperation of the company, take place on-site or on the campus of Farmingdale State College. For more information call 631-420-2316.

Other Professional Programs

Offered in conjunction with local business and industry, these programs serve as a way for working professionals to advance their careers or develop skills for a new professional path in such areas as Lean Six Sigma/Yellow and Green Belt Level Certification, Project Management Professional (PMP), and Leadership workshops. Workshop registration is attained through one's employer or through contact with the Office of Business Outreach. For further information, call 631-420-2246.

Test Preparation Courses

The Office of Business Outreach partners with Kaplan, Inc., to provide for a series of preparation courses for college entrance exams such as GMAT, PSAT, SAT, GRE, LSAT and others. For more information, call 631-420-2246.

Learning in Retirement

The Institute for Learning in Retirement, which is an affiliate of the national Elderhostel Institute Network, offers personal enrichment and educational programs for persons age 50 and over. The program is developed by Institute members who share a commitment and appreciation for learning. There are no educational requirements for membership. The Institute concept is one that offers programs for and by its members, capitalizing on the wealth of knowledge available from within its fellowship.

Membership is by application, with an annual fee. A lecture series, newsletter, use of the library, cultural events, and eligibility for enrollment in study groups are included in the membership fee.

Members may register for a selection of study groups that vary each semester. Each study group meets for two hours per week for four and eight-week sessions. There is a nominal registration charge for each study group that is selected. For more information contact the ILR at Farmingdale State College or call 631-420-2161.

Senior Auditing Program

Individuals over age 60 are invited to attend one college class as an auditing senior during the College's fall and spring semesters. Registration is based on space availability. A registration fee of $50 is required to participate in the program. Auditors must make arrangements for their own texts and/or materials. College credit cannot be earned by auditing courses. For further information on the Senior Auditing Program, please call 631-420-2244.

Student Orientation

Orientation for new students, including transfer students, is mandatory. Once you are accepted to Farmingdale State College, register for Orientation.

Student orientation activities give valuable information about the College's essential services, and provide the opportunity to meet other new students and learn from presently enrolled student leaders. New students will also be able to meet with faculty members who will advise them about academic program requirements. Becoming a part of the campus community through orientation makes it easier to embark upon a successful college experience.

For more information, you can call the Office of the Dean of Students 631-420-2104. There is a separate fee for Orientation – please visit www.farmingdale.edu/orientation for up to date details.

Residence Life

Residence Life, located on the first floor of James H. Sinclair Hall, coordinates all aspects of living on campus. Any registered FSC student is eligible to live on campus. However, preference for spaces will be given to those students who are matriculated and are full time.

Approximately 500 students live on the Farmingdale campus in our residence halls. The Residence Life program provides a living-learning experience for all students. The goal of the residence program is to provide an on-campus student centered living experience in a clean, safe, and stimulating environment. The residence halls are viewed as an extension of the classroom where learning and socialization takes place. The community atmosphere is conducive to fostering uniqueness and individuality as well as respect for the rights of others.

The Residence Life staff consists of both professional staff members and student staff members. The professional staff are called Resident Director (RD); they supervise the student staff members, called Resident Assistants. Together, they provide counseling, articulate and set limits for acceptable behavior, and support the health and safety of all who reside in the residence halls. The professional and student staff also develop educational, social and cultural programs to complement the learning that occurs inside of the classroom. Students are encouraged to be active participants in the community.

Student Activities & Campus Center

The Office of Student Activities mission is to enhance students' experiences beyond the classroom by promoting career, social, and personal development. It also oversees the operations and management of Conklin Hall and the Campus Center.

The staff consists of 5 professionals and various student staff members. The staff works with student groups on various items such as event planning, facility reservation, budgeting, leadership development, and teamwork.

The Office of Student Activities hours are Monday – Friday 9:00 a.m. to 6:00 p.m. The office is located in Conklin Hall, room 111. Phone: 631.420.2103, Fax: 631.420.2139, Email: STUACT@farmingdale.edu.

Conklin Hall

Conklin Hall is the center of campus life and activities. It houses the Office of Student Activities and the Student Government Association. Student clubs and organizations also have offices and workstations in the building. There are two meeting rooms, three small conference rooms, a media lounge and a recreational space.

The Hours of Operation are:
Monday – Friday: 8:00 a.m. to 12:00 a.m. and Saturday & Sunday: 10:00 a.m. to 7:00 .p.m.
Information Desk: 631-794-6227.

Campus Center

The Campus Center features modern dining facilities, a spacious bookstore, a student lounge, two small meeting rooms, and a ballroom. The Hours
of Operation are: Monday – Friday: 7:00 a.m. to 12:00 a.m. and Saturday & Sunday: 10:00 a.m. to 7:00 .p.m.
Information Desk: 631-794-6227/6228.

Student Government Association

The Student Government Association (SGA) at Farmingdale State College promotes the education, welfare, advocacy and enrichment of the Student Body. It is responsible for allocating the Mandatory Student Activity Fee. SGA also provides leadership and networking opportunities. SGA's office is located in Conklin Hall, room 118.

Student Clubs & Organizations

There are approximately 70 active clubs and organizations on campus. Student Clubs can open up amazing networking opportunities, confirm your career choice and provide leadership opportunities. Please note: club availability is subject to change each semester.

ACADEMIC
Accounting Society
Alpha Eta Rho (Professional Aviation Organization)
American Association of Airport Executives (AAAE)
American Production and Inventory Control Society (APICS)
American Society of Mechanical Engineers (ASME)
Architectural Construction Technology (ACT)
Computer Programming Club
Economics Club
Flying Rams
FSC Design Club
Horticulture Club
Institute of Electrical/Electronic Engineers (IEEE)
Medical Laboratory Technology (MLT)
Pre-Dental Society
Pre-Health Professions
Psychology Club
Sport Management Club
Student American Dental Hygienists Assoc. (SADHA)

CULTURAL / RELIGIOUS
Afro-Caribbean Student Association (ACSA)
Black Student Union (BSU)
Cru [Christian] Club
FSC Bhangra
Latin American Student Organization (LASO)
Muslim Student Association (MSA)
South Asian Student Association (SASA)
Spirituality Club

GREEK ORGANIZATIONS
Alpha Phi Delta Chapter Fraternity
Kappa Sigma Chapter Fraternity
Phi Iota Alpha Chapter Colony Fraternity
Phi Sigma Sigma Chapter Sorority
Sigma Delta Tau Chapter Sorority
Tau Kappa Epsilon Chapter Fraternity
Sigma Lambda Upsilon Colony Sorority

MEDIA
The Dale News
Ram Nation Radio

PERMORMING ARTS
Backstage Theatre Company (BSTC)
Farmingdale Fusion (South Indian Dance)
FSC Dance Team

RECREATIONAL
Cheerleading Club
Ice Hockey
Roller Hockey
Ski & Snowboard Club
Wrestling Club

SERVICE / VOLUNTEER
Hugs Across America
Men in Action (MIA)

SOCIAL AWARENESS
Active Minds
College Conservatives
Give Kindness
Love Over Hate
Social Justice Club
Society of Women Engineers (SWE)
Student Veterans of America (SVA)
Women in Business
Women in Computing

SPECIAL INTEREST
3D Printing Club
Campus Activities Board (CAB)
Farmingdale E-Sports
Gaming Club
Health Awareness Club
RAM Motor Sports
Robotics Club
UAV (Unmanned Aerial Vehicle) Club

STUDENT GOVERNANCE
Greek Council
Panhellenic Association
Residence Hall Association (RHA)
Student Government Association (SGA)

A detailed descriptions of each club and their contact information can be found at:
www.farmingdale.edu/campus-life/student-clubs.shtml

Intercollegiate Athletics

The purpose of the Farmingdale State College intercollegiate athletic program is to support and expand the total educational experience of our students. The program, available for men and women, offers student-athletes a wide variety of opportunities for participation. The athletics program carries out the general mission of the College and is designed to educate student-athletes in areas such as: good sportsmanship, leadership, teamwork, health, well-being, loyalty and overall character development.

Farmingdale State College is a Division III member of the NCAA (National Collegiate Athletic Association) offering 18 intercollegiate sports, including;

Mens	Womens
Soccer	Soccer
Cross Country	Volleyball
Indoor/Outdoor Track	Cross Country
Basketball	Indoor/Outdoor Track
Lacrosse	Basketball
Baseball	Lacrosse
Golf	Softball
Tennis	Tennis

The College currently holds membership in the Skyline Conference and the NJAC.

Students who are not part of a Varsity team are encouraged to stay involved by way of our newly renovated, interior and exterior athletics facility, the George E. Nold Athletic Complex. The exterior facilities include a baseball stadium, lacrosse/soccer/track complex, 6 tennis courts, multiple practice fields and a softball complex. The building features classrooms, an athletic training facility, a weight room, racquetball courts, golf simulator, auxiliary gymnasium, and full gymnasium, including a 10 lap-to-the-mile indoor track. To join the weight room, there is a fee of just $50/per semester, the golf simulator costs $20/per hour plus $5 for each additional golfer, and all other areas are free of charge with a valid student ID card.
There is no admission to the home games. To view game schedules, intramural activities or follow results of all our teams, check out our Athletics website at www.farmingdalesports.com.

Campus Recreation and Intramurals

Campus Recreation provides students, faculty, and staff outlets to experience physical, mental and spiritual growth by participating in a variety of sports, activities, clubs, and events. Campus Recreation strives to be an essential component of the student experience through environments that facilitate learning and development for both participants and employees.

Intramural Sports provides the Farmingdale State community opportunities to compete, exercise, socialize and develop lifelong skills through organized leagues, tournaments and special events. Group Fitness offers daily opportunities to improve well-being through classes such as Yoga, Zumba and Boot Camp. There is no charge to participate in Intramural Sports or Group Fitness. Campus Recreation also sponsors off-campus trips to outdoor recreation activities and professional sports events. Please email recreation@farmingdale.edu or call 631-794-6249 for more information.

University Police

The New York State University Police at Farmingdale (University Police) provides twenty-four hour service to the campus. In addition to safety, security, and emergency services, the University Police Department also offers programs in crime prevention, personal safety and related matters. For assistance, please call 631-420-2111.

Pursuant to the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, the University Police Department publishes annually A Guide to Campus Safety and Security which contains the annual crime statistics. Copies of the report may be obtained from the campus website or the Department of University Police.

Identification Cards

The University Police Department issues identification cards to all faculty, staff, students and other tenants of the campus at the University Police Office during normal business hours. All ID cards must be validated the beginning of each semester. There is no charge for the initial identification card. Lost ID Cards are replaced at the University Police Office after the replacement fee has been paid at the Auxiliary Service Office in Laffin Hall.

Parking

In addition to the N.Y.S. Vehicle and Traffic Laws, the University Police enforces Parking Regulations promulgated as part of Section 569.1 of the Education Laws. Each individual operating a vehicle on campus is responsible for complying with these regulations. Copies are available at the University Police Office as well as on the campus webpage.

Campus Notification of Registered Sex Offender (Megan's Law) New York State Registered Sex Offenders Notification Process

As a result of an amendment to New York State's Megan's Law, the State University of New York Police Departments will receive direct notification from the Division of Criminal Justice Services (DCJS) when a registered sex offender enrolls, is attending or is employed by a SUNY Campus. This statute authorizes law enforcement agencies that receive notification from DCJS to disseminate relevant information (about the sex offender) at their discretion. The information that can be disseminated to the campus community includes: name, address (either campus or home address) of Level 2 and Level 3 offenders, physical description, crime of conviction, modus operandi, type of victim targeted, special conditions of parole.

Once Farmingdale State College is properly notified by DCJS that a level 2 or level 3 sex offender is registered and is enrolled, attending or employed at the College, an announcement will be posted on the University Police webpage. Details about sex offenders will not be communicated via e-mail messages; rather interested individuals can chose to go to the NYS Sex Registry site via the University Police Web link and learn more about level 3 offenders (level 3 offenders are the only ones reported by the Department of Criminal Justice on this site) and/or make an appointment with the Chief of University Police, so appropriate and allowable information can be shared about level 2 or 3 sex offenders. Please be informed that e-mail or phone call inquiries cannot be accepted on this topic.

Dean of Students

The Office of the Dean of Students is probably best known for administering college judicial action, whereas, it is merely one function of the Office. It is more appropriate to view the Office of the Dean of Students as an area of advocacy for students. It is the primary place for students to receive guidance, assistance, resource information, and referral to the appropriate person or office. Located in Laffin Hall, Room 314, the Office of the Dean of Students additionally coordinates and administers:

- Campus Judicial Procedures
- New Student Orientation
- Student participation in Commencement

The Office of the Dean of Students can be reached at 631-420-2104 or fax at 631-420-2613.

Student Code of Conduct

Farmingdale State College is committed to providing an environment in which living and learning can occur. In order to function effectively and to provide an educational climate in which members can fulfill their academic pursuits and the educational objectives of the campus community, the college has established guidelines for defining individual rights and responsibilities as outlined in this Student Code of Conduct.

This Student Code of Conduct has been adopted for the purpose of maintaining a quality of life that shares rights, privileges and responsibilities among its citizens, not for the purpose of duplicating public statutes. Respect for the dignity and rights of students, staff, faculty and administration is expected by all individuals and groups in the campus community. Alleged violations of the Student Code of Conduct, local, state or federal statutes on campus will not be tolerated and are subject to the campus judicial process. Each student, as a representative of the College, is expected to uphold the good name of the College and respect the rights and privileges of the College community. As such, incidents which occur off campus that are alleged violations of local ordinances, State or Federal law on or off the College's premises, or at College sponsored or supervised activities where said alleged violations pose a possible threat and/or danger to the safety of the campus community may be adjudicated on campus. The College will exercise this option when:

- The student(s) can be reasonably considered a possible threat and/or clear danger to the safety of the College community.
- The academic integrity, processes and/or functions of the College are violated.

Disciplinary action by the College shall be independent of any criminal or civil proceedings. The campus judicial procedures, established to respond to these alleged violations, do not duplicate public court procedures, but protect the campus community's interests.

The President of the College recognizes the rights of designees including University Police, to enforce all regulations, policies, license agreements, laws and codes on campus. If any individual allegedly violates the laws, Student Code of Conduct or campus policies, a President's designee will institute proceedings against the offenders.

Alleged violation of the law or campus policies may result in EXPULSION/SUSPENSION from the College and/or other disciplinary action.

Alleged violation of the Student Code of Conduct is listed under two (2) categories: Level I and Level II. Any violation is strictly prohibited and may result in disciplinary action ranging from a warning letter to probation, suspension or dismissal from the College.

The Student Code of Conduct may be found in its entirety in the Student Handbook and on Farmingdale State College website under 'Policies'.

Academic Integrity Policy and Disciplinary Procedures

Each member of the Farmingdale State College campus community is expected to maintain academic integrity. Farmingdale State College has developed regulations concerning academic dishonesty and integrity to protect all students and to maintain an ethical academic environment. This includes prohibiting any form of academic dishonesty as outlined below.

Academic dishonesty cannot be condoned or tolerated in a college community. Such behavior is considered a violation of the Student Code of Conduct, and students found guilty of committing an intentional act of fraud, cheating or plagiarizing will be disciplined and face penalties.

The College regards academic dishonesty as an intentional act of fraud, in which a student seeks to claim credit for the work or efforts of another individual without correct documentation, or uses unauthorized, undocumented or fabricated information in any academic exercise.

The College also considers academic dishonesty to include forging of academic documents, intentionally impeding or damaging the academic work of others, or assisting other students in acts of dishonesty. Academic dishonesty is divided into four categories which are defined as follows:

- Cheating: Intentionally using or attempting to use unauthorized materials (including all electronic devices), information or study aids in any academic exercise.
- Fabrication: Unauthorized falsification or invention of any information or citation in an academic exercise.
- Facilitating Academic Dishonesty: Knowingly helping someone commit an act of academic dishonesty.
- Plagiarism: Intentionally representing the content (e.g., words, images, sounds, etc.) design, or ideas of another as one's own in any academic exercise. This includes content, design, or ideas in either print or electronic format.

Academic dishonesty is morally wrong, and such behavior interferes with learning and intellectual development. Therefore, all members of the campus community have the responsibility to prevent dishonesty, protect honest students, and enforce campus policies. These responsibilities include but are not limited to the following:

- faculty members have the responsibility to establish standards of academic integrity and disciplinary policies in cases of academic dishonesty (consistent with the standards and policies of the College) and to include a statement of those standards on their course syllabi.
- students have the responsibility to abstain from academic dishonesty or facilitating the dishonest behavior of others.

Violation of the academic integrity policy is strictly prohibited and may result in a disciplinary action ranging from a warning letter to probation, suspension, or dismissal from the College with a permanent transcript notation.

Smoking and Tobacco Policy

New York State Policy: The amended New York State Clean Indoor Air Act, which took effect on July 24, 2003, requires every employer in the State to provide smoke-free work areas for all employees in the workplace, including prohibition on smoking in all public buildings.

Farmingdale State College Policy: Maintaining a healthy environment for the benefit of all students, faculty, staff and visitors is a major priority for the College. Therefore, the College is taking steps to move to a "Tobacco-Free Campus." In the spirit of acknowledging the difficulty of attaining a tobacco-free campus, we have adopted the motto: "Help Farmingdale State Become a Tobacco-Free Campus." The support of the entire campus community is required and requested in order to ultimately attain this goal, as described below.

1. Smoking and the use of other tobacco products, including electronic cigarettes, is prohibited inside all buildings, within 25 feet of the perimeter of all buildings, along pedestrian pathways and at outdoor events.

2. Signs will be placed at appropriate locations around campus.

3. Programs will be provided to support smokers and users of other tobacco products in their effort to quit. Activities will include smoking-cessation sessions, distribution of literature, establishing informational web pages, and other means to encourage individuals to stop smoking and using other tobacco products.

4. Enforcement will be through cooperation of community members, education, and polite requests of those in violation to honor the policy.

All members of the campus community are encouraged to help by reminding smokers when they violate the rules, by encouraging our colleagues who smoke to seek help to stop smoking, and by supporting them as they seek to stop. (adopted 11/17/2010; edited 5/2/2012, amended 4/4/2013)

Health and Wellness Center

Phone: 631-420-2009
Fax: 631-420-2137

Hours when classes are in session:
Monday, Wednesday, Thursday 8:30 a.m.-6:00 p.m.
Tuesday 8:30 a.m.-7:30 p.m.
Friday 8:30 a.m.-4:30 p.m.

The mission of the Health and Wellness Center (HWC) is to provide high quality, cost effective, medical and wellness services utilizing a holistic philosophy. Working in conjunction with other campus departments, the HWC utilizes a multidisciplinary approach to overall wellness in order to address a diverse student population and enable the student to attain their educational goals along with becoming partners in their own health care.

The HWC is committed to supporting the physical, mental, and emotional needs of students by adhering to the most recent evidence based guidelines, while at the same time offering complementary services that enhance our medical model. Services at the HWC include nursing visits, physician visits, addiction counseling, massage therapy, yoga classes, chiropractic, and acupuncture services. A small student fitness room is also available for student usage.

During operating hours registered nurses are on hand for immediate assessment of a students needs.

Physician appointments are also available for physicals, EKG's, women's health, laboratory, and general illness.

Student Immunization Policy
New York State law requires all students born on or after January 1, 1957 who are attending an institution of higher education to submit proof of immunization or immunity to measles, mumps, and rubella. Additionally students must either have a recent immunization for meningitis (within the last 5 years), or sign an informational letter about meningitis which can be found on our website and return it to the HWC. Please be aware that all students who plan on living in the residence halls cannot waive the meningitis vaccine and must provide proof of immunization.

Proof of immunization or immunity to measles, mumps, and rubella is required for all students regardless of matriculation status or the number of credits being taken. The MMR requirement can be met as followed.
Measles- Proof of two measles vaccinations on or after the first birthday and at least one month apart; OR physician documentation of measles disease; OR blood test proving immunity to measles (must include laboratory report).

Mumps- Proof of one mumps vaccination on or after the first birthday; OR physician documentation of mumps disease; OR blood test proving immunity to mumps (must include laboratory report).

Rubella- Proof of one rubella vaccination on or after the first birthday; OR physician documentation of rubella disease; OR blood test proving immunity to rubella (must include laboratory report).

Immunization requirements must be fulfilled prior to registering for class. Noncompliance with the requirements will result in a hold on the student's account that will prevent registration for classes. Medical exemptions are granted if a physician provides documentation that a specific immunization would be detrimental to the student's health due to a medical condition. Should a student be granted a medical exemption, laboratory tests that demonstrate actual levels of immunity to measles, mumps, and rubella are required.

Campus Mental Health Services

Campus Mental Health Services (CMHS) provides a wide range of mental health services at no cost to registered students. CMHS follows accepted professional standards for privacy and confidentiality; offering services for individuals, couples, and groups, while making every effort to arrange meeting times that are convenient for students. CMHS addresses areas including, but not limited to: anxiety and stress management, coping and problem solving skills, relationship issues, depression, family crisis, trauma and loss, adjustment to college life and living, anger management, and substance use & abuse. CMHS offers a wide range of educational and personal growth oriented programs throughout the year in settings such as classrooms, residence halls, and the Campus Center meeting rooms to provide members of the campus community with opportunities to meet personal needs and enhance development. In addition, CMHS serves as a liaison and information source for students whose needs may best be met by resources in the local community, and strives to provide prompt response to urgent personal and community situations that may arise. For further information, call (631) 420-2006 or e-mail counseling@farmingdale.edu. Campus Mental Health Services is located in Sinclair 160; open Monday - Friday, 9:30 a.m. to 4:45 p.m., and selected evenings by appointment only. CMHS staff is available 7 days a week, 24 hours a day in an urgent situation by calling University Police at (631) 420-2111.

Disability Services Center

Farmingdale State College is committed to equality of opportunity for students with disabilities to participate and benefit from all of its programs, services and activities. Every effort is made to provide reasonable accommodations to our students.

The Disability Services Center is located in Roosevelt Hall. For further information come to Roosevelt Hall room 150/151 or call 631-794-6174, our secretary, or Malka Edelman, Director at 631-420-2411.

Voter Registration Forms and Procedures

Voter Registration forms and procedures can be found in the Disability Services Center. We encourage you to exercise your right and privilege to vote.

Information about voting in New York State:
www.elections.ny.gov/

Voter Registration Form – English (PDF):
www.elections.ny.gov/NYSBOE/download/voting/voteform.pdf

Voter Registration Form – Spanish (PDF):
www.elections.ny.gov/NYSBOE/download/voting/voteform.pdf

New York State Board of Elections:
www.elections.ny.gov

For further information for all VET services available, call 631-794-6174, or 631-420-2411 or come to the VET office located in Roosevelt Hall, room 109. Disability Services Center is in Roosevelt Hall room 150/151

Nexus Center for Applied Learning & Career Development

The Nexus Center helps students connect to opportunities, including jobs (part-time, full-time, summer, post-grad) and Applied Learning experiences, such as internships for academic credit. By integrating Applied Learning and Career Development, students hone their skills, enhance professional networks, and become stronger candidates for employment.

APPLIED LEARNING is real world experience. At FSC, students are encouraged to apply classroom knowledge and skills in practical hands-on environments through a variety of Applied Learning activities, including internships, clinical placements, practicums, community service, undergraduate research, and study abroad. To review internships for academic credit and other Applied Learning opportunities, log-on to the Axiom Mentor Applied Learning Database:
www.farmingdale.edu/axiom-login

CAREER DEVELOPMENT services include career counseling, resume and cover letter review, workshops, career assessments, and networking events. It is advisable to begin to meet with a Career Counselor during your freshman year of college and continue throughout the following years of study. This is an excellent way to integrate your academic choices with your career exploration and goal realization. To make an appointment to meet with a Career Counselor/apply to opportunities through our job postings system, register for a CareerConnect account at farmingdale-csm.symplicity.com/students. You will receive an email asking you to verify your account information, after which time you will be able to schedule appointments/apply to jobs through the system.

The Nexus Center is located on the lobby level of Greenley Hall, Lobby Level, Southside Outside Entrance. For more information, visit www.farmingdale.edu/nexus or call 631-420-2296.

The Academic Advisement and Information Center

The Academic Advisement and Information Center (AAIC), partnering with faculty advisors, provides guidance and essential resources to help ensure the academic success of all students at Farmingdale State College.

Appointments to meet with a counselor can be made on our website or by phone. Walk-ins are welcome; however, it is suggested that you make an appointment.

AAIC services and information available to all students include:

- Academic advisement, planning, course selection and registration
- Using Oasis and Degree Works for course registration and degree audit
- Identifying and locating your assigned academic advisor
- Campus resources for academic success
- Workshops and programs offered to enhance college skills: test taking, study skills and time management workshops
- Eligibility requirements for academic majors
- How to change your major or declare a minor
- Identifying and completing important academic and administrative forms (e.g. curriculum change, course withdrawal)
- Advisement for students on academic warning and academic probation
- Advisement for recipients of an Early Warning letter
- First-Year Seminar-easing the transition to Farmingdale
- Search for internal and external scholarships
- Search for Study Abroad opportunities
- Determining eligibility requirements for academic honor societies
- Guidance for Non-Matriculated students

In the AAIC, students learn to access College services and resources and obtain timely information about special activities and events on the campus.

Location: Greenley Library, Lower Level. Hours: Year-round, Monday through Friday. Visit our website for current hours.
Website: www.farmingdale.edu/aaic.
Email: advisement@farmingdale.edu. Tel: 631-794-6160.

Research Aligned Mentorship (RAM) Program

The Research Aligned Mentorship (or RAM) Program is a special academic support and enrichment program funded by a First in the World Grant awarded to Farmingdale State College by the United States Department of Education. Students selected for this program will have the extraordinary opportunity to participate in a serious research project with a faculty mentor either on campus or at a major research university, national laboratory, business accelerator, or other appropriate research venue. In addition, RAM students will receive priority registration, one-on-one academic counseling and support tailored to each students' needs, and invitations to special events and workshops. Farmingdale will strive to see that all RAM students graduate with a distinctive record of accomplishment.

The RAM Program is located in the Lower Level of Greenley Library.

Educational Opportunity Program

The Educational Opportunity Program (EOP) is an academic and financial aid program that provides admission and ongoing support to eligible disadvantaged students who demonstrate the potential to succeed in college. The EOP provides students with academic, pre-professional and Campus Mental Health Services; advocacy; and referrals when appropriate. Eligible students also receive an EOP grant added to their financial package. Students are also provided with various academic support services including tutoring and skill building workshops. All incoming EOP freshman will participate in a mandatory residential summer orientation program designed to strengthen skills and aid in their transition to college. EOP is located in Laffin Hall, Suite 315.

TRiO Student Support Services (SSS)

TRiO SSS is a federally funded support services program designed to support the academic success of a select group of students who meet at least one of the following criteria:

- First-generation (neither parent/guardian has earned a four-year baccalaureate degree)
- Low income (as determined by federal TRiO guidelines)
- Have a documented disability.

Services provided to chosen participants include a free residential Summer Bridge Orientation Program for incoming first-year students, a specialized two-semester First-Year Experience course, career exploration and planning (including graduate school preparation), academic advising, financial counseling, referrals to tutoring services, opportunities for undergraduate research or internships, cultural activities, and mentoring. Applications can be completed online at www.farmingdale.edu/campus-life/student-support-services/trio/index.shtml

TRiO is located in Laffin Hall, Room 112.
Tel: 631-794-6152

Campus Recreation

The Department of Campus Recreation offers students, faculty and staff a great way to relieve stress, stay in shape, and meet other members of the Farmingdale State College community. Best of all, there is little or no cost to participate in recreational activities or events. Campus Recreation includes traditional intramural leagues and tournaments, fitness and group exercise classes, outdoor pursuits and professional sporting events. Intramural Leagues include flag football, soccer, volleyball, dodgeball, basketball, softball, and ultimate frisbee. Students have the option of creating their own team or entering into the leagues as a free agent, which will allow them to be placed onto a team and meet new students. Fitness and Group Exercise classes include Yoga, Zumba, Pilates, Abs & Core workouts, upper body workouts and flexibility workouts taught by a wide variety of certified instructors. Outdoor Pursuits are activities like hiking, biking, skiing, rock climbing and white water rafting. Professional Sporting Events are trips to Major League Baseball games, NBA games, NHL games and US Open Tennis just to name a few. Please do not hesitate to get in touch with us if you have any questions or comments by emailing recreation@farmingdale.edu . You can also call the Campus Recreation Department at (631) 794-6249.

Pre-Health Professions Advisement

Pre-Health Professions Advisement (PHPA) offers guidance to students preparing for admission to professional schools of medicine (M.D. and D.O.), dentistry, veterinary medicine, physician assistant, chiropractic, pharmacy, optometry, podiatry, physical therapy as well as all allied health disciplines.

The office assists in setting up a timeline to application and identifying requirements for application and admission to graduate health programs. Advisement will also include recommended and required courses, letters of recommendation, assistance with personal statement writing, career counseling, interview preparation, and assistance with test preparation services.

PHPA provides the opportunity for a committee letter of evaluation required for students applying to medical, dental, veterinary, and optometry programs. This process will require an application and committee interview that will take place in the spring of the year a student intends to apply for their respective programs.

Matriculated students in any undergraduate curriculum, as well as students enrolled in the post-baccalaureate certificate in Sciences for the Health Professions, may seek advisement by the office. However, due to the highly competitive nature of health professional school admissions, students must have an overall GPA of at least 3.0 to seek formal assistance from PHPA. All students must consult with their department advisor regarding their curriculum and/or degree requirements prior to meeting with the PHPA office. For more information, please visit the website www.farmingdale.edu/prehealth or call (631) 420-2530. The office of PHPA is located in Gleeson Hall room 349.

The Tutoring Center

The Tutoring Center provides a variety of free services to registered students on a walk-in basis. These services include individual and/or group tutoring sessions in many subjects taught at the College as well as assistance in basic skills in the sciences, technology and business, including remedial course work. Study skills workshops, designed to help students develop college-level academic skills, are available in test taking, studying, and note taking. The Tutoring Center also provides tutoring in a variety of computer courses.

The Center's facilities are open to students Monday through Friday, when classes are in session and are staffed with professional tutors as well as faculty-recommended peer tutors. New schedules of courses, tutors and times are issued each semester and can be obtained:

- By visiting www.farmingdale.edu/tutoring
- By e-mail request to tutoringctr@farmingdale.edu Subject: Tutoring.
- In person from the Tutoring Center, Greenley Hall Library.

Please call the Tutoring Center at (631) 420-2066/2475 for any additional information.

The Language Center

The Language Center provides assistance to students who are taking Arabic, German, French, Chinese, Italian or Spanish and need help reviewing grammar, vocabulary, reading, writing and pronunciation. Tutors are available on a walk-in-basis, at no charge from, Monday through Thursday. Hours are posted outside Room 200 in Memorial Hall or on the modern languages website.

The Math Learning Center

The Mathematics Learning Center provides assistance for students who are experiencing difficulties in mathematics. Tutoring is available on a walk-in-basis, at no charge, from Monday through Thursday. Workshops are given periodically during the semester (particularly for using the TI-89 and for using calculators in statistics). Videos are available for review Review sessions are given for most courses before final exams. Hours are posted outside Whitman Hall 181 or call the Center at 631-420-2217.

The Writing Center

The Writing Center provides assistance to students who are finding it difficult to prepare written materials for English and other courses. Help is available by appointment or on a walk-in basis. In addition, students may use the word processors in the Writing Center to compose, revise and print their assignments. Staff members are available to assist students with the use of the word processors. The Writing Center is located in Greenley Hall Library, 2nd Floor.

Veterans Services

The Office of Veterans Services is located in Roosevelt Hall, Rm 109. It has been established to assist veterans and/or their eligible dependents. The Office of Veterans Services coordinates all interaction between the student veteran and the college. Help is offered in areas from admissions and registration to student accounts and course advisement. Acting as a liaison and advocate for the student veteran is of paramount importance in ensuring that the veteran remains at Farmingdale until they receive their degree. The office is also the primary entity behind the Farmingdale chapter of Student Veterans of America. The club focuses on social interaction between veterans and non-veterans alike as well as running fund raisers for various veterans related charities in the region and nationwide.

All applications for VA benefits must be filed through the VA's website at www.gibill.va.gov. Those eligible to receive benefits must remain in good academic standing and comply with the academic standards for New York State programs. Military coursework may be eligible for college credit. Veterans should contact the transfer credit coordinator at 631-420-2643 to determine eligibility.

Upon admission to the College, veterans should contact the Director of Veterans Services to determine how to apply for GI Bill and related benefits. Once eligibility has been determined by the Department of VA Education, veterans should contact the School Certifying Officials in the Registrar's Office (631-420-2776). Veteran students utilizing VA Educational Benefits (CH 33, 31, 30, 1606, 1607, 35) will receive priority registration for all terms. Any changes in the status of the student must be reported to the Veterans Administration within thirty days. In compliance with this requirement, Farmingdale State College monitors the academic progress of all student veterans. For questions regarding VA benefit certification, please contact the School Certifying Officials in the Registrar's Office. Further information may be obtained by calling 631-794-6168.

Finances: Tuition & Fees***

As of the publication of the catalog, tuition and fee amounts are the proposed rates- Pending administrative action to finalize.

Advance Deposits

Tuition	$100.00 subject to change
Room	$50.00

Tuition

Undergraduate Tuition
N.Y.S. Resident

Full-Time	$3,435.00/semester
Part-Time	$286.00/credit hour

Non-N.Y.S. Resident

Full-Time	$8,325.00/semester
Part-Time	$694.00/credit hour

Graduate Tuition
N.Y.S. Resident

Full-Time	$5,545.00/semester
Part-Time	$462.00/credit hour

Non-N.Y.S. Resident

Full-Time	$11,325.00/semester
Part-Time	$944.00/credit hour

Students taking 12 or more credits are considered full-time and pay the standard tuition rate.

There is no full-time plateau for 12 or more credits in Intersession or Summer.

Room and Board

Residence Hall

Single	$4,585.00/semester
Double	$4,044.00/semester
Residence Hall Damage Deposit	$100.00 /academic year
Common Area Damage Deposit	$75.00 /academic year

Board

Carte Blanche 7 day Meal Plan	$2,575.00/semester
$150 declining dollars	

The Carte Blanche meal plan will be offered to all resident students, allowing for an unlimited access to the resident dining location (subject to brief closure for meal transition periods), plus four meal passes per semester.
Since the meal plan is an "unlimited all you care to eat while dining in POP's" facility, please note food cannot be removed from the facility. For those students with conflicts in class and/or work schedules or any other concerns or questions, please see the Food Service Director. It is the student's responsibility to activate and validate their meal plan card with Campus Dining. The student is also responsible to notify the Residence Life office or the manager of Campus Dining immediately should there be any problems using their meal plan card or obtaining access to the campus dining facilities. Visit Dining Services on the Farmingdale website and the Resident Student Handbook for more information.

College fees

Full-Time Students.................................$12.50 /semester
Part-Time Students...............................$ .85 /credit hour

Other registration charges

Student Activity Fee

Full-Time...$100.00/semester
Part-Time..$8.00/credit hour

Health Service Fee

Full-Time...$150.00/semester
Part-Time...$ 12.50/credit hour

NOTE: Please be aware that this is not Health Insurance.

Intercollegiate Athletic Fee

Full-Time...$205.00/semester
Part-Time...$17.10/credit hour

Recreation Fee

Full-Time...$10.00/semester
Part-Time...$.80/credit hour

Technology Fee

Full-Time...$213.00/semester
Part-Time...$17.75/credit hour

Transcript Fee $10.00/semester

Transportation Fee

Full-Time...$17.50/semester
Part-Time...$1.50/ per credit

Insurance*

Student Insurance..................................$2,575.00/year

International Student Insurance

Fall (8/5/18-1/14/19)................................ TBD
Spring (1/15/19-6/14/19) .... TBD
Spring/Summer (1/15/19-8/14/19) .... TBD

Late Registration Fee...........................$30.00

Late Payment & Program Changes

Late Payment Fee ....up to $50.00 per occurrence
depending on liability

Program Change**

(Drop-Add Fee) $20.00

Fines and Fees

I.D. Card Replacement $25.00
Return Check Charge $20.00
Alumni Fee (optional) ....$50.00 lifetime membership

Vehicle Registration Fee

(per vehicle)...$30.00 /academic year
Parking Fine ....$35.00 /violation
Parking Fine (Handicapped) ....$150.00 /violation
Impound Vehicle Storage Fee ....$10.00 /day
Boot Fee..$35.00

Credit-By-Evaluation . . . . $40.00 per credit.
If services of a consultant are required, a fee of $60.00 is charged.

*Student Insurance provides coverage for both Sickness and Accident Insurance. All students residing in campus housing will have the charge added to their bill, and are required annually to sign a waiver and submit proof of personal insurance (by the published deadline) if they do not want the coverage. Optional coverage is available for commuter students. The brochure,

waiver form and other information is available online on the Auxiliary Service Corporation (ASC) page of the Farmingdale State College website. Rates are subject to change without notice by action of Farmingdale State College of New York, Auxiliary Services Corporation at Farmingdale State College, and or Board of Trustees.

**The College reserves the right to charge a $20.00 change-of-schedule fee after the official Drop/Add period has ended.

***Please note that tuition and fees are subject to change without notice by action of Farmingdale State College and/or SUNY Board of Trustees.

Program Specific Fees

Flight Fees...$9,000.00 per semester
Liability Insurance Fee...........................$5.00 per semester
Nursing Learning Testing Fee:
Bachelor's Degree program ....$75.00 per semester
Refer to FEES section for details.
In some courses additional costs to the student may be incurred because of field trips, special equipment, or for transportation to off-campus assignments.

Tuition and fees are subject to change without notice by action of the Farmingdale College Council and/or the SUNY Board of Trustees.

Total Estimated Budget

Estimated expenses per academic year:

	NYS Resident	Non-NYS Resident
Tuition	$6,870.00	$16,650.00
Fees	1,436.00	1,436.00
SUBTOTAL – Commuters	8,306.00	18,086.00
Room and Board (if applicable)	13,238.00	13,238.00
GRAND TOTALS	**$21,544.00**	**$31,324.00**

Note: Students should anticipate additional costs for books, supplies, transportation and personal expenses.

Payment of Tuition and Other Charges

Students are afforded the opportunity to complete the registration payment process completely through the mail. The front of your student bill indicates the deadline for that particular semester. This information is also available on the Student Accounts web site. Continuing students who register after the prescribed deadline will be assessed a $30 late registration fee. In addition, students who fail to settle their accounts before the first day of classes will be subject to a late payment/administrative fee of up to $50 depending on your liability. The College also reserves the right to assess additional late payment fees, up to a maximum of 4 per semester, inclusive of any assessment made for failure to settle an account before the first day of classes.

Please be aware that once you have registered for classes, you have incurred a financial liability for the cost of these courses. That liability may be cancelled or reduced by subsequent actions taken by the student (withdrawal during the published refund schedule). Students should be aware that if they decide not to attend the College after registering for courses they must withdraw from the course(s) in order to have their liability adjusted and/or a refund processed. Please refer to the Refund

Policy section for further details.

The College recognizes that there may be instances such as medical circumstances, serious family situations, deaths and other similar severe events that may prevent a student from attending class(es) for the remainder of the semester for which they are currently enrolled. These serious circumstances may require that the student withdraw from their class(es) and request a refund that is beyond the normal refund schedule and policy. Students should be aware that they have the right to submit such an appeal to the Extenuating Circumstances Committee. The procedure for filing this appeal is detailed under the section Academic Information within this catalog.

Students should be aware that the State University of New York policy required the College to take the following action for students who fail to meet their financial obligations:

1. **Deny future registrations**
2. **Cancel current registrations**
3. **Withhold transcripts and grade reports**
4. **Withhold diplomas**

Where payment of tuition and other charges is not made, the student's account is subject to collection actions, including the referral to the Office of the New York State Attorney General.

Tuition Payment Plan

There is a payment plan available for students who wish to spread their payments over an extended period of time. For further details, please refer to the Student Accounts website.

Advance Deposits

An Advance Tuition Deposit of $100 is required according to instructions conveyed in the student's letter of acceptance. This Advance Deposit is applicable towards tuition due at registration. A Room Deposit of $50 is required of any student who wishes to apply for a room on campus. This fee, which is applicable to the room charge, is due at the time the student submits his/her Housing Application for college housing.

Tuition

Undergraduate
Residents of New York State are assessed $6,870 per year as a full time student. Non-residents of New York State are assessed $16,650 per year as a full time student. The per credit rates for residents and non-residents are $286 and $694, respectively.

Graduate
Residents of New York State are assessed $11,090 per year as a full time student. Non-residents of New York State are assessed $22,650 per year as a full time student. The per credit rates for residents and non-residents are $462 and $944, respectively.

Tuition rates quoted above are correct as of the publication of this catalog, and students should be aware that tuition and fees are subject to change without notice by action of the Farmingdale College Council and/or SUNY Board of Trustees.

Fees

The College Fee
The College Fee provides supplemental support to the academic mission of the college.

Student Activity Fee
As stated in the policy of the Board of Trustees, this fee supports student activities, programs, and events. Groups must meet specific state guidelines to receive funding.

Intercollegiate Athletic Fee
This fee supports the College's Intercollegiate Athletic program, which offers male and female student athletes a wide variety of opportunities for participation. Intercollegiate Athletics at Farmingdale function within guidelines established by the Board of Trustees of the State University of New York.

The College is a Division III member of the National Collegiate Athletic Association (NCAA).

Health Service Fee
A Health Service Fee is required of all students by New York State Law. The fee includes nursing assessment and medical clinics, some medications, and emergency first aid. Students must have a completed Health Report and Physician's Certificate on file to be eligible for all services except emergency care. This is not health insurance.

Recreation Fee
A Recreation Fee has been implemented to support the Campus Recreation Department. The Campus Recreation Department was created in the fall of 2013 for the purpose of providing students, faculty and staff a wide variety of recreational activities. These activities include but are not limited to; Intramural Sports Leagues and Tournaments, Fitness and Group Exercise Classes, Outdoor Pursuits (Hiking, Biking, Skiing) and Professional Sporting Events. By implementing a Recreation Fee, Intramural Sports Leagues and Tournaments will be offered free of charge, as will Fitness and Group Exercise Classes instructed by top notch instructors. The Recreation Fee will also allow students to access the weight room in Roosevelt free of charge. The implementation of a Recreation Fee will allow the department to provide off campus trips to recreational events. The Recreation Fee will allow Campus Recreation Department to grow and add more programming for years to come.

Technology Fee
A Technology Fee has been implemented to support the increased use of computing and communication technology in the deliverance of academic course offerings and administrative services available to all students. The Technology Fee will be utilized to support broad-based campus projects which have a positive impact upon technology services and support for use by all students. Examples of projects might include: student Internet access, Web Server/Browser access to student information, student course registration, voice response, student telephone registration and other activities.

Transportation Fee
Transportation fees support operation and maintenance of student transportation services on campus, and/or between the campus and the surrounding community.

Flight Fee
Students enrolled in the Professional Pilot Program are assessed a $9,000 per semester fee to cover the cost of flight instruction. Students outside of the Professional Pilot Program that elect to flight train at Farmingdale State College are also assessed this fee.

Nursing Learning Testing Fee
The ATI Nursing Education Learning system is designed to help students build and use critical thinking and problem solving skills to succeed in the nursing program and the NCLEX licensing exam.

Late Registration Fee
A late registration fee of $30 may be assessed if students do not register before the prescribed deadline.

Late Payment/Administrative Fee
A late payment/administrative fee of up to $50 will be assessed to all students who do not submit payment for their balance due to the College. For further details, see the Billing Policy.

Drop/Add Fee
A Drop/Add fee of $20 per session will be assessed for all adjustments occurring after the established cut-off date for these transactions.

Non-Matriculated Application Fee
A fee of $50 will be assessed for all non-matriculated undergraduate applicants at time of application. A fee of $100 will be assessed for all non-matriculated graduate applicants at the time of application.

Vehicle Registration Fee
The Vehicle Registration Fee of $30 covers the cost of the sticker for parking privileges on the campus for the entire academic year.

Parking fines of $35 will be assessed to all vehicles parked illegally, as defined by Campus Traffic regulations. Additionally, a fine of $150 will be assessed to vehicles parked illegally in designated handicapped spaces. Students may obtain parking permits online utilizing their oasis pin by selecting 'parking' on the Farmingdale quick links web page and following the links provided for purchasing permits.

Course/Lab Fees
SUNY fee policy 7804 (which can be viewed at www.suny.edu) allows campuses to charge course related fees for academic offerings that entail extraordinary costs and/or result in a tangible end product for students. Accordingly, the College is charging course/lab fees in certain curricula - for the specific courses, please see the Student Accounts webpage.

Resident Students

Room Charges
Room charges cover the cost of a room on a seven-day-a-week basis. All pertinent information on the subject is provided in the Residence License and "The Guide."

Board Charges
The College requires that all students residing in residence hall facilities on campus purchase a meal plan. In addition, a meal plan may be purchased on an optional basis by commuter students. Additional information is available at both the "Dining Services" and "Auxiliary Services Corporation" links on the Farmingdale State College webpage. .

Telephone Service
On-campus telephone service is available in all residence facilities. Campus and emergency calls are provided free of charge. Residents are responsible for their own telephone sets.

Residence Hall Damage Deposit
A Residence Hall and common area Damage Deposit is required from all resident students. If no assessments are made against the student's deposit, the deposit will be refunded in full at the end of the academic year. This deposit is payable at the time of registration.

Insurance

Resident and Commuter Students
Resident students will have the student insurance added to their bill and are required annually to sign a waiver and submit proof of personal insurance if they wish to cancel this coverage. Resident students may waive the insurance during the first ten days of the semester only. Refer to the Resident Student Handbook for more information. Commuter students may add this fee as an optional charge. The Student Health Brochure and other information is available on the Auxiliary Service webpage.

International Students
Students from countries other than the United States are required to be covered by the SUNY International Student and Scholar Health Insurance Program, and will have the charge added to their bill. For additional information, go to www.geobluestudents.com.

Please note that tuition and fees are subject to change without notice by action of Farmingdale College Council and/or SUNY Board of Trustees.

Identification Card Replacement Fee
An Identification Card Replacement Fee is assessed to all students to cover the cost of the material and labor when replacement of an I.D. card is requested.

Transcript Fee
This fee is assessed on a per semester basis to all students to cover the cost of printing and mailing transcripts on the student's behalf to other institutions.

Returned Check Charge
A Returned Check Service Charge is assessed against the student when a check is returned unpaid by the bank against which it is drawn. In addition, a late payment fee is assessed to the account at the same time. The College will not accept any more personal checks from a student who has had a check returned against his or her account. All liabilities will have to be paid by cash, or by certified or bank check.

BankMobile and the Refund Process
Farmingdale State College has partnered with BankMobile, a financial services company, to process refunds to FSC students. Registered students will be mailed a Refund Selection Kit from BankMobile Disbursements.

Once you receive the Refund Selection Kit, follow the steps to choose your refund preference. As soon as you have selected your refund preference, any refund processed will be delivered based on the method you have selected.

Your refund delivery options include:

■ **Electronic Deposit to Another Account** - BankMobile will wire funds into your existing bank account. You will need to provide third party banking information (routing and account numbers) to receive refunds via direct deposit to your existing account at another financial institution. Money is transferred to another account the same business day BankMobile receives the funds from your school. Typically, it takes 1 - 2 business days for the receiving bank to credit the money to your account.

■ **Paper Check Delivered by USPS** - You have the ability to choose a paper check sent to your mailing address. A check is mailed the same business day BankMobile receives funds from your school, provided receipt is within daily cutoff times. Typically, it takes 5 - 7 business days for the check to arrive, depending on USPS First Class® delivery timeframes.

■ **Electronic Deposit to a BankMobile Vibe Account** - If you open a BankMobile Vibe account (upon identity verification), the money is deposited the same business day BankMobile receives the funds from your school.

Please select your refund preference as soon as you receive your Refund Selection Kit. Remember, even if you are not currently expecting a refund from Farmingdale State, a refund may be due you in the future.

Please ensure that Farmingdale State College has your current mailing address. To view your address(es), log into OASIS and click on the Personal Information link. In order to update your address, submit a Change of Student Information form to the Registrar's Office. The form can be found on the Registrar Forms page of the Farmingdale State website.

If you have not received your Refund Selection Kit, misplaced it, or want additional information, please go to www.RefundSelection.com.

Refund Policy

Refund Policy For Cancelled Courses
The College takes responsibility to see that any student who is enrolled in a course that is subsequently cancelled by the College will receive a full refund of all appropriate tuition and fees.

Refund Policy Before Classes Begin
Students who elect to cancel their schedule through the last business day before classes begin must notify the Registrar either in person or in writing of their intention. Letters can be faxed to 631-420-2275. The College will process a refund for all appropriate tuition and fees.

Refund Policy After Classes Begin
If students decide to withdraw from a course or from the College, they must do so by completing the necessary forms. Unless students follow the official withdrawal procedure, their fiscal liability for the courses will remain in place. **Failure to submit payment, stopping payment on a check, or not attending classes does not absolve students of this fiscal obligation.** Your liability to the College will be determined by the refund schedule applicable at the time the withdrawal process is completed. The refund schedule for the individual fees is as follows:

Tuition Refunds

Fall and Spring Semester
First Week....................................... *100%*
Second Week *70%*
Third Week *50%*
Fourth Week *30%*
Fifth Week .... *0% refund*

Single Summer Session
First week *100%*
Second week *25%*
Third week .... *0% refund*

The College runs several courses that do not fall into the normal 15-week semester. The refund schedule for these courses is published separately and is available on the Student Accounts Office webpage.

Refund Policy for Dismissals

Any student who is expelled or suspended from school by the President of the College or his designee, or the Dean of Students, will not be eligible to receive tuition or any other refund.

Tuition and Fee Refund Policy for Military Service
There shall be no tuition or fee liability established for a student who withdraws to enter military service prior to the end of an academic term for those courses in which the student does not receive academic credit.

Note: The term "military service" means full-time active duty in the Army, Navy (including Marine Corps), Air Force, Coast Guard of the United States, or qualifying National Guard duty during a war, other military operation, or national emergency as defined in Section 5 of the Higher Education Relief Opportunities for Students (HEROES) Act (Public Law 108-76).

Enlistment under a delayed enlistment plan does not constitute "full-time duty" until the student is required to leave school on the effective date of active duty as stated in the student's orders.

A student who is a member of a National Guard, Army, Navy or Air Force Reserve unit that is not called up for duty as defined above, is entitled to a refund only, if in the judgment of the appropriate campus officer, the student is unable to attend classes due to hardship beyond the student's control and the student has made bona fide efforts to permit continued class attendance. Documentation of membership on active duty in the military service shall be provided to and retained by the campus. In the event that a refund is granted to a student in National Guard or reserve status, documentation of the reasons for such action shall be in writing and retained by the campus.

Military personnel withdrawing from any program or term because of changes of assignment beyond their control and upon proper certification of such change from a base education service officer or other appropriate military official shall be deemed to have incurred no liability for tuition and fees due from the student, as opposed to tuition and fees paid by the federal government on the student's behalf (to which federal regulations on return of such funds apply).

College Fee
The College Fee is not refundable except for the following: military service, request of the Chief Administrative Officer, and cancelled course. Exceptions to these limitations will be granted only under extenuating circumstances and must be documented.

Student Activity Fee, Health Service Fee, Intercollegiate Athletic Fee, Technology Fee, Recreation Fee
These five fees are refunded according to the same schedule as tuition charges.

Sickness Insurance

The student health insurance will be refunded only through the first ten days of classes. Students must complete and submit, annually, a waiver form and proof of personal coverage within the first ten days of classes in order for the refund to be processed.

Transcript Fee

The transcript fee is refundable at 100% only through the first week of classes.

Room and Board

Residence hall and meal plan fees are refundable on a prorated basis according to the following schedule, providing that the student follows the check-out procedure through Residence Life.

Time-Frame	Liability	Refund
First week	10%	90%
Second week	25%	75%
Third week	50%	50%
Fourth Week	75%	25%

Any student who has been accorded due process and has been dismissed from the residence halls for disciplinary reasons will receive neither full nor partial refund of room, board or fee payments.

If any student self initiates withdrawal from the resident halls subsequent to the refund period, the student may retain the board meal plan to which they originally subscribed. There is no conversion option.

Any resident student has the opportunity to upgrade their meal plan during the first two weeks of the fall and/or spring semester. First, go to the Student Accounts office in Laffin Hall. Then, go to the Dining Services office in Knapp Hall to update your account.

Room and Board Refunds for Military Service

Students who withdraw from the residence halls to enter military service (following the same criteria as defined in "Tuition and Fee Refund Policy for Military Service" above) prior to the end of the academic term will have their room and board charges prorated according to the week that the student officially withdraws from the residence halls. The fall and spring terms operate under a fifteen week semester, which shall be the denominator for the refund equation. For example, a student withdrawing to enter military service during the 9th week of the semester would receive a refund of 40% (6 unused weeks out of the 15 week semester).

With respect to refunds for military service, this policy supersedes the room and board refund policy for normal withdrawals described above, which pertains to withdrawals from the first through the eight week of the semester. Also, this policy is directed to adjusting a student's charges for and the resultant refund, and does not apply to any return of federal financial aid resulting from such transactions, to which federal regulations on return of such funds apply.

Advance Tuition Deposit

Requests for refund of the Advance Tuition Deposit should be directed in writing to the College's Admissions Office on or before May 1 for the fall semester, and November 1 for the spring semester. Refund requests received after these dates will be honored only for one of the following reasons:

1. Failure on the part of the accepted applicant to fulfill all admissions conditions as stated in the student's letter of acceptance.

2. Circumstances considered to be beyond the control of the applicant as judged by the Chief Administrative Officer of the College, or his designee, who is the Chief Fiscal Officer.

3. Advance Deposits received for acceptances which are issued after April 1 or November 1 will be refundable providing such requests are received within 30 days after notification of acceptance, and providing further that such notification is received before the first day of classes in the term for which the Advance Deposit was made.

Advance Room Deposit

The Advance Room Deposit will be refunded in full if either of the following two conditions are met:

1. If the application for refund is made by June 15 or within 30 days after notification of acceptance, whichever is later.

2. If the application for refund is made later than as stated above, the refund will be granted only if:

   a. The student withdraws to enter military service.

   b. The student withdraws due to conditions beyond his/her control as certified and approved by the Chief Administrative Officer of the College.

Advance Deposit Refunds that are not requested within this timetable will not be refunded and will be forfeited to the State of New York.

FINANCIAL AID

To determine a student's financial aid package, we subtract the calculated Family Contribution, as determined through the FAFSA, from the College's Cost of Attendance budget. The Cost of Attendance includes:

Direct costs (Actual Tuition, Fees, and On Campus Resident charges); and Indirect costs (Books, Supplies, Transportation, Off Campus Room and Board allowance, Personal Expenses and others)

Examples of Cost of Attendance at Farmingdale State College
Based upon Proposed 2018-2019 rates.

Full-Time NYS Resident Living Home with Parent(s)

Tuition and Fees	$8,306
Books and Supplies	$1,200
Room and Board	$2,400
Transportation	$1,850
Personal Expenses	$1,300
Total	$15,056

Full-Time NYS Resident Living On Campus

Tuition and Fees	$8,306
Books and Supplies	$1,200
Room and Board (average)	$13,403
Transportation	$700
Personal Expenses	$1,300
Total	$24,909

The costs listed above are for estimating only. Charges for tuition, fees, room and meal plan are re-evaluated each year and are subject to the New York State budget process.

Applying for financial aid can seem to be a complicated and complex procedure. With correct information and assistance from the Financial Aid Office, the process can be simplified. The office is located in room 324, Laffin Hall.

Federal and state governments, businesses, industry, organizations and the University endeavor to provide students with a variety of scholarships, grants, loans and work programs.

The Financial Aid package is a combination of grants, loans, employment and scholarships which will be used to meet a student's financial need. The mix of the package depends upon the student's need and the available funds.

The chances for each individual to receive financial aid depend on a wide variety of circumstances. Some of which include family income and size, assets and other variables. Since every case is unique, all students who are enrolled in a matriculated (degree granting) program are encouraged to file for financial assistance. Applications and information concerning various types of financial aid may be obtained from the Financial Aid Office, Room 324, Laffin Hall.

File the Free Application for Federal Student Aid (FAFSA) electronically at www.fafsa.ed.gov. The federal code for Farmingdale State College is 002858.

If you are filing your FAFSA on the web and wish to sign it electronically, both the student and parent need to apply for a Federal Student Aid (FSA) ID, which will be an electronic signature for future transactions. You and your parent can apply for your individual FSA ID on the web at www.fsaid.ed.gov. This ID can be used each year for re-filing your FAFSA application. The Student Aid Report (SAR) which shows the result of a student's application for federal financial aid, will be sent to the student within 2 weeks of submission of the completed, signed FAFSA application. The SAR is used to determine the student's financial need for federal programs including Pell, Federal Work Study, Supplemental Educational Opportunity Grant, Perkins Loan and Stafford Loans. A FAFSA must be re-filed for each academic year that a student wishes to receive financial aid. The preferred filing deadline for continuing students at Farmingdale State College is March 1st.

Verification of Information
Many financial aid applicants will be required to verify the information that is reported on the FAFSA/Renewal FAFSA. Financial data such as income, taxes paid and non-financial data such as family size and dependency status will be verified. For this reason it is extremely important that the figures you report when completing the FAFSA/Renewal FAFSA are accurate. If there are any discrepancies in the data that was submitted on the application, the aid originally awarded will be revised (either increased or decreased). If you are selected for verification you may need to submit IRA Tax Transcripts, proof of untaxed income, W-2 statements for you, your spouse, and your parent(s), if dependent, and any requested Verification Worksheets. You should be aware that by not submitting the required documents, as requested, all aid is placed on hold, including loans. When you apply for Federal aid, you sign a certification agreeing to give proof of all the information you have on the form, if asked. As such, if you do not give the proof, you will not receive aid. If you withdraw from the college prior to completing verification you will be given additional time to supply the requested verification documents. If you do not submit the documentation, your aid will be cancelled.

FEDERAL GRANTS AND LOANS:

Federal Pell Grant

Eligibility: This is a federal grant for matriculated students (in a degree granting program) who meet the financial need guidelines of the program, are in good academic standing and are making satisfactory academic progress.

Amount per year: $606 to $5,920 (2017-2018) depending on the student's enrollment status and federal funding for this program.

Pell Recalculation Policy
Schools must recalculate Pell Grants based on the number of credits enrolled in at a prescribed Pell Recalculation Date. We will review enrollment a the end of the drop/add period of each Part of term (session) within a semester and including the Winter term as a Part of Term for the Spring semester. A Pell Grant may be reduced or increased based on changes in enrollment.

Federal Supplemental Educational Opportunity Grant (SEOG)
This is a federal grant that may be awarded to Pell eligible students in good academic standing.

Campus based amount per year: $100 to $3000. Priority is given to full-time students living in campus housing. If student is not enrolled full-time in courses that apply to his/her major, awards may be reduced or cancelled.

Eligibility: Awarded to students who have exceptional financial need and who are enrolled as matriculated students.

Awards are based on the FAFSA determination of need, the availability of funds, good academic standing, satisfactory progress towards a degree and filing the FAFSA each year by the Farmingdale State College filing deadline of March 1st.

Federal Direct Loan Program – Direct Subsidized and Direct Unsubsidized
Eligibility: This loan program enables students to borrow funds directly from the federal government to help pay educational costs. Students must file the FAFSA in order to establish eligibility for the Federal Direct Loan Program. Students must be registered at least half-time in a matriculated program, be in good academic standing, and be maintaining satisfactory progress towards a degree in order to borrow a loan. If a student is offered and accepts a Federal Direct Subsidized and/or a Federal Direct Unsubsidized loan, Entrance Counseling and an electronic Master Promissory Note (e-MPN) must both be completed online at www.studentloans.gov before any funds can be issued to the College on the student's behalf. A loan may never exceed the cost of education minus other financial aid received. Loan proceeds are not disbursed until at least 30 days after the first day of classes.

Eligibility for the Federal Direct Subsidized loan program is based on financial need as determined by the FAFSA. The federal government will subsidize the loan by paying the interest on the loan while the student is enrolled at least half-time in a matriculated program. Interest will begin to accrue on the loan after the student ceases to be enrolled at least halftime or ceases to be enrolled in a matriculated program; repayment of the loan principle begins six months after that date. For the 2017-18 academic year, the interest rate upon repayment is currently 4.45% and fixed. There is a 1.066% origination fee.

The Federal Direct Unsubsidized loan is available to all students enrolled at least half-time, regardless of financial need as determined by the FAFSA. Interest will accrue on the loan while the student is enrolled in classes. The student may choose to pay the interest while in school, or defer the interest until repayment of the loan principle begins. For the 2017-18 academic year, the interest rate on the Federal Direct Unsubsidized loan is currently 4.45% and fixed. There is a 1.066% origination fee.

A student who is a freshman (0-29.99 credits earned) dependent student may borrow up to $5,500 for the academic year, and an independent student may borrow up to $9,500 (the Federal Direct Subsidized loan may not exceed $3,500). A sophomore (30-59.99 credits earned) dependent student may borrow up to $6,500 for the academic year, and an independent student may borrow up to $10,500 (Federal Direct Subsidized loan may not exceed $4,500). Students enrolled in Bachelor degree programs who have earned 60+ credits may borrow up to $7,500 as a dependent student and $12,500 as an independent student (Federal Direct Subsidized loan may not exceed $5,500). A student in an Associate Degree program may not exceed the sophomore loan limit. Certificate students should refer to the office of Financial Aid for information on their annual loan limits.

Repayment of the Federal Direct loans begin six months after a student graduates, leaves the College, or falls below half-time status. It is therefore mandatory for all students who have borrowed Federal Direct loans to complete Exit Counseling online at the U.S. Department of Education's website (www.nslds.ed.gov). This will provide information on the Federal Direct Loans including loan types, disbursed amounts, outstanding principal and interest, and the total amount of all loans.

Typically, loans may be repaid over the course of ten years. The monthly payment will depend upon the total amount borrowed, interest rate assessed, fees calculated, and repayment period for each different loan.

The Federal Direct Parent Loan (PLUS) enables either a biological, adoptive, or step-parent of a dependent student to borrow a loan up to the cost of education, less financial aid, to meet the costs of education. While the PLUS loan is not based on financial need, the student must file a FAFSA to be eligible. The parent must apply for the Federal Direct PLUS loan online at www.studentloans.gov, must pass a credit check, and must complete an e-MPN. The Federal Direct PLUS loan will accrue interest at 7% for the 2017-18 academic year. There is currently a 4.264% origination fee. The repayment period for a Direct PLUS Loan begins at the time the PLUS loan is fully issued to the College, and the first payment is due within 60 days after the final disbursement. However, the parent can contact the loan servicer to make arrangements to defer repayment of Federal Direct PLUS if approved. If the parent does not get approved for a Federal Direct PLUS loan, the student may request to borrow additional Federal Direct Unsubsidized Loan funds and should contact the Office of Financial Aid for further details.

Important Information For First-Time Stafford Loan Borrowers
Effective July 1, 2013, new Stafford loan borrowers will no longer be eligible for the subsidized portion of the Student Loan program if he or she exceeds 150% of the published timeframe to complete a degree or certificate program.

For example, if you are enrolled in a four-year bachelor's degree program, the maximum eligibility period that you can receive Direct Subsidized Loans is six years (150% of 4 years = 6 years). If you are enrolled in a two-year associate degree program or a two-year certificate program, the maximum period that you can receive Direct Subsidized Loans is three years (150% of 2 years = 3 years). Finally, if you are enrolled in a one-year certificate program, the maximum period that you can receive Direct Subsidized Loans (150% of 1 year = 1.5 years).

In addition, if the borrower has reached the 150% percent limitation, the interest subsidy ends for all Federal Subsidized Loans disbursed to the borrower on or after July 1, 2013.

Federal Perkins Loans - Program Expired 9/30/2017

This is a loan program that is interest free to the student while he or she is attending school at least half-time, in a matriculated program.
For academic year 2017-2018 students who had a Perkins Loan previously disbursed at Famingdale will be eligible.

Campus based amount per year: up to $5,000.

Eligibility: This is a federally funded loan program. This loan may be renewed annually and is based on the FAFSA determination of continuing need, the availability of funds, good academic standing, satisfactory progress towards a degree and filing the FAFSA each year by the Farmingdale State College filing deadline of March 1st. Priority will be given to full time students.

Repayment: Repayment of the Federal Perkins Loan begins nine months after the student graduates, leaves school or drops below half-time status. The interest rate is currently fixed at 5%. The repayment term may be up to 10 years depending on the total amount borrowed. The minimum monthly payment is $40.

Cancellation: Cancellation of interest and principal may be obtained if the following conditions are met.

1. Full-time teacher in a designated elementary or secondary school.
2. Full-time special education teacher – includes teaching disabled children in a public or other nonprofit elementary or secondary school.
3. Full-time qualified professional provider of early intervention services for the disabled.*
4. Full-time teacher of mathematics, science, foreign languages, bilingual education, or in other fields designated as teacher shortage areas.*
5. Full-time employee of a public or nonprofit child or family service agency, providing services to high-risk children and their families from low-income communities.*
6. Full-time nurse or medical technician.*
7. For loans made on or after November 29, 1990 – service as a full-time law enforcement or corrections officer.
8. Full-time service as a staff member in a Head Start Program.
9. Service as a Peace Corps or VISTA volunteer – up to 70% cancellation.
10. Service in the Armed Forces – up to 50% cancellation for service in areas of hostility.

*This cancellation benefit applies to Federal Perkins Loans made on or after July 23, 1992.

Federal Work Study Program

This program provides part-time jobs on campus and at select off campus community service locations

Campus based amount per year: up to $3,000.

Eligibility: Open to all matriculated students who have established financial need and who are in good academic standing and maintaining satisfactory progress toward their degree. The amount of Federal Work Study (FWS) a student is awarded is determined by their need. The maximum award for the year is $3,000. A student may work a maximum of 20 hours per week while school is in session. If the student is awarded FWS he or she must return to the financial aid office for placement and to complete their employment forms. FWS is disbursed to the student via bi-weekly payroll.

Students must accept award on OASIS by October 15th for the Fall term and February 15th for a Spring term award only or WITHIN 30 days of original offer, whichever is later. Due to availability of funds, the offer may be cancelled after it expires.

STATE AID PROGRAMS

Complete information regarding all scholarships and grant programs from New York State is available at www.hesc.ny.gov.

High School Diploma

To be eligible for State student financial assistance, Education Law section 661(4) states that a student first receiving aid in academic year 2006-07 and thereafter, the certificate of graduation must be from a recognized school providing secondary education within the United States. To be acceptable, the certificate of graduation or high school diploma must be from a secondary school that is recognized, authorized or approved by the state educational entity having jurisdiction. A student who has graduated from an out-of-state secondary school that is not recognized or authorized by the state where the school is located must choose one of the other options for establishing eligibility for financial aid. In New York State, only public high schools and registered nonpublic schools are permitted by Education Law to issue high school diplomas. Students who have completed their education at a nonpublic school that has elected not to register with the State Education Department must choose one of the other options for establishing their eligibility for student aid.

The institution must have on file one of the following acceptable demonstrations of meeting the high school graduation requirement:

■ A high school diploma as indicated on an official, final high school transcript with graduation date posted; or

■ A prior degree as indicated on an official transcript with degree date posted; or

■ An official transcript showing 24 semester hour credits earned at an accredited institution in the appropriate distribution to qualify for a high school equivalency diploma pursuant to the Regulations of the Commissioner of Education (6 credits in English Language arts, 3 credits each in the Humanities, Natural Sciences, Mathematics, and Social Sciences, and 6 additional credits applicable to the student's program); or

■ Appropriate documentation from the local school district of completion of high school requirements through home schooling; or

■ A GED/TASC test score certificate showing passing scores.

Excelsior Scholarship and Excelsior Tuition Credit

Recipients of the Excelsior Scholarship may receive up to $5,500 or actual tuition, whichever is less. The maximum Excelsior Scholarship will be reduced by the amount of certain other student financial aid awards which an applicant has or will receive for the academic year including a New York State Tuition Assistance Program (TAP) award and/or federal Pell grant.

A supplemental Excelsior Tuition Credit award will be added to the Excelsior Scholarship if the tuition is not fully covered by the Excelsior Scholarship, TAP, Pell and all other grants and scholarships.

Tuition Assistance Program (TAP)

The New York State Tuition Assistance Program (TAP) helps eligible New York residents pay tuition at approved schools in New York State. Depending on the academic year in which you begin study, an annual TAP award can be up to $5,165. Because TAP is a grant, it does not have to be paid back.

TAP is primarily for full-time students enrolled in 12 semester credits.

Please Note: Only courses that apply to the student's current academic program can be included. The only exception is if the student is a graduating senior in their last term and the remaining required coursework totals less than 12 credits. We may then include additional coursework that brings them up to full-time for TAP eligibility.

Effective for the 2007-08 academic year and thereafter, TAP is available for students attending SUNY, CUNY and not-for-profit independent degree-granting colleges on a part-time basis. To be eligible for Part-time TAP you must have been a first-time freshman in the 2006-07 academic year or thereafter, have earned 12 credits or more in each of two consecutive semesters, and maintain a "C" average.

Amount per year: $500 - $5,165 (2016-2017 academic year.) Award amounts are determined each year by the New York State Legislature.

Eligibility: All matriculated students who are New York State residents and whose family New York State net taxable income is within allowable limits in the preceding tax year, are eligible for a TAP grant to attend a New York State institution. Students must file the FAFSA and the Express TAP Application (ETA). The ETA will be forwarded to the student by New York State Higher Education Services Corporation (HESC) after the FAFSA has been processed. The TAP codes for Farmingdale State College are 3025 for students in a program leading to an Associate Degree. The TAP code for students enrolled in a Bachelors Degree program is 6025. TAP awards are subject to the New York State budget process. TAP must be re-applied for each academic year. In addition to re-filing each academic year, continuing students must meet program pursuit and academic standards established by the State University of New York.

Aid for Part-time Study (APTS)

This program provides assistance for undergraduate students who are New York State residents, attending college part-time, in New York State. Part-time attendance is defined as between 3 to 11 credits.

Amount per year: Actual tuition charges or $1,000 per semester, whichever is less.

Eligibility: The student must be a New York State resident, who is a matriculated student in good academic standing, attending a New York State school. If a student is married, without dependents, the New York State net taxable income may not exceed $34,250. If the student was claimed or was eligible to be claimed as a tax dependent on the parent's income tax, or the student was eligible to claim his or her own tax dependents other than a spouse, the family's New York State net taxable income can be as high as $50,550. Income limits are defined each year by the New York State legislature. Awards can not exceed tuition and are based on financial need as defined by APTS legislation. Applicants must file an APTS application, available at the financial aid office on or about July 15th, each year. APTS funding allocations are subject to the New York State budget process and may vary from year to year.

Educational Opportunity Program

This program provides grant assistance to students who meet the EOP academic and financial guidelines for admission to the college and are full-time, matriculated students. Amount per year varies based on the student's enrollment status, class year, and commuter or residential dorm status. EOP grant awards are subject to the New York State budget process.

SUNY Tuition Credit

SUNY Tuition Credit funds are meant to assist with meeting the SUNY tuition increases. Award amounts are based upon the amount of the student's TAP grant and are calculated by HESC (Higher Education Services Corporation) for TAP eligible students enrolled at a SUNY institution. Awards are also dependent upon passage of the annual NY State budget. All SUNY Tuition Credits are initially estimated and are subject to change.

State University Supplemental Tuition Award (SUSTA)

SUSTA is a state grant that is based on a full time student's TAP grant eligibility and financial need. Amount of awards can range between $200 and $500 per academic year.

Other New York State Grants, Scholarships and Awards

Scholarships

Flight 3407 Memorial Scholarship provide financial aid to children, spouses and financial dependents of individuals killed as a direct result of the crash of Continental Airlines Flight 3407 on February 12, 2009.

The Flight 587 Memorial Scholarship guarantee access to a college education for the families and financial dependents of victims of the crash of American Airlines Flight 587 on November 12, 2001.

The Military Enhanced Recognition Incentive and Tribute-Merit Scholarship, (also known as), The Military Service Recognition Scholarship provides financial aid to children, spouses and financial dependents of members of the armed forces of the United States or of a state organized militia who, at any time on or after Aug. 2, 1990, while a New York State resident, died or became severely and permanently disabled while engaged in hostilities or training for hostilities. For study in New York State.

The NYS Math & Science Teaching Incentive Scholarship provides grants to eligible full-time undergraduate or graduate students in approved programs that lead to math or science teaching careers in secondary education.

The NYS Memorial Scholarship provides financial aid to children, spouses and financial dependents of deceased firefighters, volunteer firefighters, police officers, peace officers, and emergency medical service workers who have died as the result of injuries sustained in the line of duty in service to the State of New York. For study in New York State.

Scholarships for Academic Excellence are awarded to outstanding graduates from registered New York State high schools. Awards are based on student grades in certain Regents exams. For up to five years of undergraduate study in New York State.

The NYS World Trade Center Memorial Scholarship program guarantees access to a college education to the families and financial dependents of the victims who died or were severely and permanently disabled in the Sept. 11, 2001 terrorist attacks and the resulting rescue and recovery efforts.

The Senator Patricia K. McGee Nursing Faculty Scholarship program seeks to increase the number of educators and adjunct clinical faculty teaching nursing education in New York State.

The NYS Science, Technology, Engineering and Mathematics (STEM) Incentive Program provides a full SUNY or CUNY tuition scholarship for the top 10 percent of students in each New York State high school if they pursue a STEM degree in an associates or bachelor degree program and agree to work in a STEM field in New York State for 5 years after graduation.

The New York State Young Farmers Loan Forgiveness Incentive Program is offered to encourage recent college graduates to pursue careers in farming in New York State. This program provides loan forgiveness awards to individuals who obtain an undergraduate degree from an approved New York State college or university and agree to operate a farm in New York State, on a full-time basis, for five years.

The New York State Achievement and Investment in Merit Scholarship (NY-AIMS) provides high school graduates who excel academically with $500 in merit-based scholarships to support their cost of attendance at any college or university located in New York State.

New York State Part-Time Scholarship (PTS) Award Scholarship Award provides scholarship awards to students who attend a SUNY or CUNY Community College part-time and maintain a 2.0 GPA. Students can receive $1,500 per semester for up to 2 years.

NYS Child Welfare Worker Incentive Scholarship grants awards for child welfare workers employed at voluntary not-for-profit child welfare agencies licensed by the NYS Office of Children and Family Services (OCFS). Recipients must agree to live in NYS and work at a voluntary not-for-profit child welfare agency licensed by OCFS for 5 years after graduation, and can use the award to get an associate's, bachelor's or graduate degree for not more than 2 years, 4 years, and 2 years, respectively.

Awards

NYS Aid to Native Americans provides aid to enrolled members of tribes listed on the official roll of New York State tribes or to the child of an enrolled member of a New York State tribe. For study in New York State.

NYS Regents Awards for Children of Deceased and Disabled Veterans provides to students whose parent(s) have served in the U.S. Armed Forces during specified periods of war or national emergency.

Segal AmeriCorps Education Award provides to New York State residents interested in high quality opportunities in community service.

Veterans Tuition Award provides awards for full or part-time study to Vietnam, Persian Gulf, Afghanistan, or other eligible combat veterans matriculated at an undergraduate or graduate degree-granting institution or in an approved vocational training program in New York State.

Scholarships and Awards:

Scholarships and awards are available to all students, based on certain criteria, in both the associate and bachelor degree programs. To receive information on Farmingdale State College scholarship programs, please go to the Scholarships webpage or External Scholarships on AAIC webpage. For private scholarship sources, please visit www.fastweb.com. If you have any questions or need assistance filling out a scholarship application, you may contact the Financial Aid office at 631-420-2578.

Financial Aid Policies

1. The Financial Aid Office reserves the right to request additional information and/or documentation from the student or parent(s), before disbursing aid to the student's Farmingdale State College account.

2. Financial Aid is not available to international students who are studying at Farmingdale State College.

3. In order to receive aid, a student must be enrolled in a matriculated program. Aid is based on the number of credits the student is enrolled in at the end of the first week of classes that apply to the student's current academic program. Adjustments in the amount of financial aid that the student is eligible for may be made for changes to the number of eligible credits the student is attempting.

4. Students must be enrolled in at least 6 eligible credits per term (Fall, Intersession and Spring combined, or Summer terms combined) to receive most federal financial aid, except Pell Grant. Only courses that apply to the student's current academic program, as determined by DegreeWorks or academic department, can be considered in determining the number of eligible credits for financial aid.

5. In order to receive financial aid at Farmingdale State College a student may not be in default on a Perkins (formerly National Direct Student Loan) or Stafford Loan. The student can not receive aid if he/she owes a refund on a Pell or SEOG grant.

6. Federal and New York State legislation mandate that all students receiving financial aid meet institutional, New York State and federal standards of Satisfactory Academic Progress as defined qualitatively by Grade Point Average and quantitatively by Pace of Progression (percentage of all credits attempted that are earned within a maximum time frame) in order to continue to receive federal and/or state aid. Farmingdale State College's academic progress requirements are fully explained in the chapter of this catalog titled "Academic Information".

7. The academic progress of a student is reviewed each semester. For students who are receiving financial aid, a determination of continued eligibility is made. Students who no longer qualify for continued financial aid are notified by mail.

8. A student's enrollment in a program of study abroad approved for credit by the home institution may be considered enrollment at the home institution for the purpose of applying for assistance under the Title IV, Higher Education Amendment programs.

Satisfactory Academic Progress for Financial Aid

In order to continue to receive financial assistance in the subsequent semester and thereafter, a student must meet the academic standards on the following pages.

Academic Standards for New York State Programs

Students are required to complete a certain percentage of courses each term, depending on the number of state awards they have received. The percentage is determined according to the following schedule:

No. of Payments .... Must Receive a Grade for

Already Received	Pursuit of Program of A-F or P
1,2	50% of minimum full time (6 credits)
3,4	75% (9 credits)
5 or more	100% (12 credits)

Repeated courses will only count toward a full-time schedule and Pursuit of Program if a grade of F or W was received. A course with a grade of F or W can only be repeated once. If this course is repeated again, it would have to be in addition to the 12 credit minimum required in order to be considered full-time. The only exception would be if a minimum grade is required for a particular curriculum. This would have to be approved and documented by the Department Chair in order to be approved.

In addition, a student must meet the minimum academic progress standards. Academic standards for eligibility for TAP programs are available at: www.hesc.com/content.nsf/CA/TAP_Coach. The academic standard requirements can be viewed by clicking on the A-Z link.

A student may have New York State financial aid reinstated if he/she makes up the deficiency without benefit of financial aid or is readmitted to Farmingdale State College after an absence of at least one calendar year. Part-time students receiving New York State assistance (Aid for Part-time Study Program) must meet the academic standards for full-time students as adapted to recognize the reduced enrollment status.

A student who fails to meet the minimum standards whether in Pursuit of Program (number of credits completed every semester with a letter grade of A-F or P) or satisfactory Academic Progress (cumulative number of credits that must be earned, and cumulative (GPA), may apply for a one-time waiver. Students who fail to meet the C-Average requirement (which must be achieved and maintained after receiving the Fourth TAP payment) may apply for a C-Average waiver which may be issued more than once.

The waiver is not automatically approved; a reason for the student's inability to meet the standards must be documented. In order to apply for a waiver, a student must present exceptional or extraordinary circumstances which must be approved by officials for the institution and maintained on file for review by HESC. Institutional officials are required to deny the waiver if the facts concerning a student's failure to adhere to standards do not warrant approval.

Academic Standards for NYS Programs

Program: Baccalaureate Program	Calendar: Semester 2010-11 and thereafter (non-remedial students)									
Before Being Certified for This Payment	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
A Student Must Have Accrued at Least This Many Credits	0	6	15	27	39	51	66	81	96	111
With At Least This Grade Point Average	0	1.5	1.8	1.8	2.0	2.0	2.0	2.0	2.0	2.0

Academic Standards for NYS Programs

Programs: Associate Program	Calendar: Semester 2010-11 and thereafter (non-remedial students)					
Before Being Certified for This Payment	1st	2nd	3rd	4th	5th	6th
A Student Must Have Accrued at Least This Many Credits	0	6	15	27	39	51
With At Least This Grade Point Average	0	1.3	1.5	1.8	2.0	2.0

Academic Standards for Federal Financial Aid and EOP Funding

In order to receive federal grants and/or loans and EOP funds a student must meet the satisfactory academic standards for receipt of federal financial aid.

All credits attempted, whether or not the student ever received financial aid, must be evaluated in order to determine if a student is eligible for financial aid in subsequent terms. Program standards for financial aid will be evaluated at the end of each semester. Non-credit course work will be evaluated according to the University standards. A student who fails to meet the progress standards, but who is permitted to remain in school as a matriculated student, will be allowed one semester on financial aid probation. Only one semester of financial aid probation can be granted to a student.

Academic Standards for Federal Financial Aid

	Total Credits Attempted	Successful Achieved Credits	Cumulative GPA
Bachelor Degree	0-12	0	0.0
	13-18	6	1.1
	19-24	8	1.4
	25-30	10	1.4
	31-35	12	1.5
	36-40	15	1.7
	41-45	18	1.7
	46-50	21	1.7
	51-55	25	1.7
	56-60	30	1.8
	61-65	35	2.0
	66-70	40	2.0
	71-75	45	2.0
	76-80	50	2.0
	81-85	55	2.0
	86-90	60	2.0
	91-96	65	2.0
	97-101	70	2.0
	102-106	75	2.0
	107-111	80	2.0
	112-116	85	2.0
	117-121	90	2.0
	122-126	95	2.0
	127-131	100	2.0
	132-136	105	2.0
	137-141	110	2.0
	142-146	115	2.0
	147-151	120	2.0
	152-156	125	2.0
	157-161	130	2.0
	162-166	135	2.0
	167-171	140	2.0
	172-176	145	2.0
	177-181	150	2.0

	Total Credits Attempted	Successful Achieved Credits	Cumulative GPA
Associate Degree	0-12	0	0.0
	13-18	6	1.1
	19-24	8	1.4
	25-30	10	1.4
	31-35	12	1.5
	36-40	15	1.7
	41-45	18	1.7
	46-50	21	1.7
	51-55	25	1.7
	56-60	30	1.8
	61-65	35	2.0
	66-70	40	2.0
	71-75	45	2.0
	76-80	50	2.0
	81-85	55	2.0
	86-90	60	2.0
	91-96	65	2.0

Incompletes, Withdrawals and Repeated Courses will be counted in Attempted Credits and affect your Pace of Progression. Tranfer Credits will be included in Total Credits Attempted and Earned.

General Education Requirements

The Board of Trustees of the State University of New York has mandated that students in baccalaureate, associate in arts, and associate in science degrees, as a condition of graduation, complete an academically rigorous and comprehensive core General Education curriculum of no fewer than 30 credits. Students must show competency by taking at least three credit hours each in basic communications and mathematics, and will demonstrate overall competency in the areas of critical thinking and information management.

Farmingdale students in mandated programs will earn 30 SUNY General Education Requirement (SUNY-GER) credits by completing one or more courses in **each** of the following areas:

Basic Communication
Mathematics
Humanities
Arts
American History, or Other World Civilizations, or Western Civilization
Natural Science
Social and Behavioral Science
Foreign Language

At Farmingdale, EGL 101 Composition I: College Writing and EGL 102 Composition II: Writing About Literature, with a grade of C or better, are College requirements. EGL 101 also currently fulfills the requirement for the Basic Communication competency area. Certain programs may require additional general education courses as part of the required courses in the major.

Critical Thinking and Information Management are infused throughout Farmingdale's General Education program. All baccalaureate programs address specific computer literacy requirements as part of the curriculum and the college catalog states: "To meet the diverse needs of its programs, and in the spirit of providing a liberal education to all students, the College requires that each student receive some type of computer instruction before being awarded a degree."

Based on the requirements in the major, our Bachelor of Technology programs will have varying requirements which will satisfy the SUNY mandated requirements for general education. Additionally, some majors may have SUNY approved waivers. Please speak with your advisor to select the courses to satisfy the general education requirements specific to your program.

The ten General Education Competency Areas with the courses which have been approved to fulfill the student learning objectives in each area are as follows:

1. Basic Communication:
BUS 141: Contemporary Business Communications
EGL 101: Composition 1 - College Writing
EGL 310: Technical Writing
SPE 130: Public Speaking
SPE 202: Interpersonal Communications
SPE 330: Professional and Technical Speech
SPE 331: Advanced Oral Communications
(also dual listed as PCM 331)

2. Humanities:
ARC 362: History of Western Architecture
ART 200: History of Graphic Design
ART 201: Survey of Art History: Prehistoric Times through the Middle Ages
ART 202: Survey of Art History: Early Renaissance to Present
ART 203: History of Interaction Design
ART 242: Italian Renaissance Art
ART 303: MesoAmerican Art History
EGL 201: English Literature: Old English through the 18th Century
EGL 202: English Literature: 19th Century to the Present
EGL 203: American Literature: Beginnings to 1865
EGL 204: American Literature: 1865 to the Present
EGL 206: World Literature: Early Classics
EGL 207: World Literature: The Moderns
EGL 212: Introduction to Fiction
EGL 250: Young Adult Literature
EGL 307: Special Topics in Literature
EGL 312: Major Authors in American Literature
EGL 314: Major Authors in World Literature
EGL 316: Women in Modern Literature
EGL 322: Leadership in Fact, Fiction & Film
EGL 323: Major Authors in British Literature
HOR 350: The Art History of Garden Design and Landscape Architecture
MLG 304: French Culture and Civilization
MLG 306: Italian Culture and Civilization
MLG 310: Latin American Women Writers
MLG 311: Italian American Experiences
MLG 312: Contemporary Latin American Short Stories
MLG 315: Art, Culture and Civilization of Spain
MLG 316: French Fables and Folktales
MLG 317: The Arab-American Experience
MLG 320: Latino Writers in the U.S.
MLG 321: Chinese Culture and Civilization
MLG 322: The Latin American Novel
MUS 108: Survey of Western Music
PHI 105: Philosophy: Modern and Contemporary
PHI 106: Philosophy: Classical and Medieval
PHI 205: Ethics

3. The Arts:
EGL 200: Shakespeare
EGL 210: Introduction to Drama
EGL 214: Introduction to Poetry
EGL 216: Creative Writing
EGL 225: Images of Women in Drama
EGL 228: Classics and Mythology in Pop. Culture
EGL 240: Themes in Science Fiction in Film and Lit.
EGL 242: Film and Literature
EGL 244: Classics of Supernatural Film and Lit.
EGL 266: Fantasy in Literature and Film
EGL 269: The Romantic Arts: Art, Dance, Lit. & Music
EGL 308: The City in Lit., Art, Film and Theatre
EGL 309: Voices of Black America in Poetry, Prose & Song
EGL 319: Modern Drama
EGL 330: Classical Greek Tragedy: Aeschylus, Sophocles, and Euripides
EGL 331: Death, Madness and Sex: The Victorians
HOR 223: Floral Design I-Basics
MLG 300: International Cinema
MLG 301: Italian Cinema
MLG 302: Spanish and Latin American Cinema
MLG 303: French Cinema
MLG 307: French and Francophone Fiction and Film
MLG 309: Arabic Cinema
MLG 314: Hispanic Fiction to Film

MLG 318: Italy: From Text to Film
THE 233: Introduction to Theatre
VIS 101: Introduction to Drawing
VIS 102: Interrelationship of Art & Music
VIS 103: Introduction to Watercolor
VIS 104: Introduction to Calligraphy
VIS 105: Introduction to Photography
VIS 106: Introduction to Pastels
VIS 114: Principles of Color
VIS 115: Three-Dimensional Design
VIS 215: Introduction to Animation
VIS 216: Painting I
VIS 217: Introduction to Printmaking
VIS 260: Graphic Design for Non-Majors
VIS 265: Web Design for Non-Majors

4. American History:
HIS 121: US History to Reconstruction
HIS 122: US History Since Reconstruction

5. Other World Civilizations:
ANT 130: North American Indians
ANT 211: Caribbean Cultures
GEO 211: The World and Its Peoples
HIS 117: World Civilization I
HIS 118: World Civilization II
HIS 213: Peoples and Cultures of Asia
HIS 215: The World of Islam
HIS 216: History of Central Asia: From Genghis to Borat
HIS 233: Comparative Religions and Cultures
HIS 280: Caribbean History
HIS 281: Modern Latin America
MLG 308: Arabic Culture and Civilization

6. Western Civilization:
GEO 231: Europe and Its Peoples
HIS 114: Western Civilization I
HIS 115: Western Civilization II
HIS 217: From Constantine to Columbus: Western Civilization
        in the Middle Ages
MLG 305: Hispanic and Latin American Culture and Civilization
POL 273: Italian Politics and Society

7. Mathematics:
MTH 102: Elementary Discrete Mathematical Models
MTH 103: Sets, Probability and Logic
MTH 107: Introduction to Mathematical Ideas
MTH 110: Statistics
MTH 116: College Algebra
MTH 117: Precalculus Modeling for Life and Social Sciences
MTH 129: Precalculus with Applications
MTH 130: Calculus I with Applications
MTH 150: Calculus I
MTH 151: Calculus II
MTH 236: Calculus II with Applications

8. Foreign Languages:
Note: While Level I language will satisfy the competency area, it may not satisfy program requirements; students are strongly advised to consult with an academic advisor on this particular general education area.

ARA 131: Arabic I (Elementary)
ARA 132: Arabic II (Elementary)
ARA 233: Arabic III (Intermediate)

ARA 234: Arabic IV (Intermediate)
CHI 151: Chinese I (Elementary)
CHI 152: Chinese II (Elementary)
FRE 101: French I (Elementary)
FRE 102: French II (Elementary)
FRE 203: French III (Intermediate)
FRE 204: French IV (Intermediate)
GER 111: German I (Elementary)
GER 112: German II (Elementary)
GER 213: German III (Intermediate)
GER 214: German IV (Intermediate)
ITA 121: Italian I (Elementary)
ITA 122: Italian II (Elementary)
ITA 125: Italian for Business
ITA 223: Italian III (Intermediate)
ITA 224: Italian IV (Intermediate)
SPA 141: Spanish I (Elementary)
SPA 142: Spanish II (Elementary)
SPA 145: Spanish for Medical Personnel
SPA 243: Spanish III (Intermediate)
SPA 244: Spanish IV (Intermediate)
SPA 250: Spanish for Native Speakers
SPA 251: Spanish Composition and Conversation

Although Farmingdale State College does not offer American Sign Language courses, students who have taken ASL courses approved for SUNY General Education at other institutions may use it to satisfy the foreign language category. However, direct transfer of credits may not be feasible in all majors.

9. Social and Behavioral Sciences:
ANT 100: Introduction to Anthropology
ANT 110: Sociocultural Anthropology
ANT 210: Modern Anthropology and Globalization
ECO 110: Introduction to Personal Finance
ECO 120: The Global Economy
ECO 156: Principles of Economics (Macroeconomics)
ECO 157: Principles of Economics (Microeconomics)
ECO 321: Engineering Economics
GEO 110: Maps and Map Analysis
POL 105: Introduction to Politics
POL 250: American National Government
POL 251: State and Local Government
POL 262: Global Politics
POL 267: Politics of the Muslim World
PSY 101: Introduction to Psychology
PSY 232: Child Development
PSY 234: Social Psychology
PSY 238: Psychology of Human Sexuality
SOC 122: Introduction to Sociology
SOC 200: Introduction to Women's Studies
SOC 225: Sociology of the Family
SOC 228: Society and Health
SOC 229: Race and Ethnic Relations
SOC 231: Multiculturalism
SOC 238: Youth Culture
SOC 282: Introduction to LGBT Studies

10. Natural Sciences:
BIO 120: General Biology
BIO 123: Human Body in Health and Disease
BIO 125: Principles of Nutrition
BIO 130: Biological Principles I
BIO 131: Biological Principles II
BIO 135: Marine Science

BIO 166: Principles of Human Anatomy and Physiology
BIO 170: Human Anatomy and Physiology I
BIO 171: Human Anatomy and Physiology II
BIO 192: Botany
BIO 197: Human Biology
BIO 198: Entomology
CHM 111: Chemistry and Public Interest
CHM 112: *Chemistry and Public Interest Lab
CHM 124: Principles of Chemistry
CHM 140: Introduction to General, Organic and Biochemistry
CHM 152: General Chemistry Principles I
CHM 153: General Chemistry Principles II
CHM 260: Fundamentals of Organic Chemistry
HOR 111: Horticulture II-Growth and Development of
        Cultivated Plants
HOR 112: Soils: The Foundation of Life
PHY 110: Physical Science-Physical Geology
PHY 111: Physical Science-Historical Geology
PHY 112: Physical Science Survey
PHY 113: Physical Science-Physics
PHY 114: Physical Science-The Environment
PHY 115: Physical Science-Energy
PHY 116: Physical Science-Meteorology
PHY 117: Physical Science-Solar System Astronomy
PHY 118: Physical Science-Stellar Astronomy
PHY 119: Physical Science-Technology
PHY 120: Physical Science-Extraterrestrial Phenomena
PHY 121: General Physics-Classical
PHY 122: General Physics-Modern
PHY 123: The Theory of Everything
PHY 125: **PHY Science Lab I
PHY 126: **PHY Science Lab II
PHY 135: College Physics I
PHY 136: College Physics
PHY 143: Physics I (calculus based)
PHY 144: Physics II (calculus based)
PHY 151: University Physics I
PHY 152: University Physics II
PHY 161: University Physics Laboratory I
PHY 262: University Physics Laboratory II
PHY 253: University Physics III
PHY 333: Modern Physics

* This Chemistry Lab qualifies for credit towards the General Education Program when taken with Chemistry 111.

** These Physics Labs qualify for credit towards the General Education Program when combined with any Physics course numbered 110 through 123. Each lab carries 1 credit.

WAIVERS: Waivers in any specific competency area will be addressed on an individual basis under advisement. AP, CLEP, LOTE and REGENTS can be considered for waivers.

Any student who applies for and is granted a waiver in a particular competency area must still complete the minimum General Education credit requirement of their degree program. The number of credits waived may be applied to "elective" courses in any of the ten competency areas at the students' discretion though the College recommends that this be done under advisement.

Foreign Language Requirements Policy

The foreign language requirement for the SUNY General Education Program at Farmingdale State College requires students in most programs to successfully complete a course in the foreign language competency area. Some majors require a minimum proficiency of a Level II or higher foreign language. Students who wish to register for a Level II course must have successfully completed a college Level I course (or three to four years of study in that same language in high school) or take a placement examination offered by the Modern Language Department.

The following provisions exempt a student from the Level I and Level II requirement:

- A student who has documentation of completion of primary education abroad in a foreign language other than English (this documentation must include a certified translation).

- A Regents or LOTE (Language other than English) exam score in a foreign language of 85 or above.

- Advanced Placement examination in a foreign language with a score of 3 or above.

- International Baccalaureate examination in a foreign language with a score of 4 or above.

- A CLEP exam score of 50 or above.

- A foreign language proficiency exam offered by the Modern Languages Department.

Students who are exempt from the foreign language requirement, may be required to take a higher level foreign language course, a foreign language culture/cinema course offered through the Modern Language Department or a liberal arts course to satisfy the credit requirements of the major. Students should consult with their academic advisor regarding this matter.

The Modern Language Department currently provides Proficiency Testing (credit by evaluation) in the following languages: Arabic, Bengali, Chinese (Mandarin), Ethiopian, French, German, Greek, Hebrew, Hindi, Italian, Japanese, Korean, Persian (Farsi), Polish, Portuguese, Punjabi, Rumanian, Russian, Slovak, Spanish, Tamil, Turkish and Urdu. Students who successfully pass the exam will have three credits in Foreign Language.

If a student seeks exemption based on knowledge of a language not found on the list above, the student must take a language test administered by the Foreign Language Proficiency Testing Service of the New York University School of Continuing and Professional Services. If the student achieves a score of 8 or above on this test, he/she may receive up to six credits in foreign language. If the student's score is 5-7, the student must enroll in one of the Modern Language Department's elective culture/cinema courses taught in English to complete this requirement.

Consideration for a foreign language waiver/substitution for students with disabilities

To be considered for a Foreign Language Waiver (and then a course substitution), a student must be registered with the Disability Services Center (DSC).

The student requesting the foreign language waiver will provide documentation that explains the appropriateness of this request.

An example could be documentation that explains a language processing problem. Documentation will be reviewed by the director of the DSC and a determination will be made.

Students are strongly encouraged not to wait until the final year of FSC to make this request. Not all requests are approved.

When a foreign language waiver is approved, the student is required to substitute a Modern Language Course(s), (MLG) taught in English to fulfill the requirement in his/her curriculum.

Writing-Intensive Requirement

Effective Fall 2005, all students enrolled in bachelor degree programs must complete at least one writing-intensive course (identified with a W after the course number) with a grade of C or better to meet graduation requirements. Courses where the subject is writing (such as EGL 102, EGL 310, or BUS 141) may be required in your degree program, but they do not fulfill the Writing in the Discipline requirement. Electives vary each semester, so consult the list of writing-intensive courses on the Registrar's Web site and speak to your advisor to make sure that you meet this requirement. Prerequisite: Completion of EGL 101 with a grade of C or better.

Writing-Intensive Courses in the Majors

Major	Course Designator	Course Title
Aeronautical Science/Professional Pilot	*Please contact the Aviation Department Chair or your advisor.*	
Applied Economics	ECO 490W	Economic Research and Reporting
Applied Mathematics	MTH 315W	History of Mathematics
Applied Psychology	PSY 311W	Organizational Behavior
Architectural Engineering Technology	ARC 350W	Architectural Theory & Design Factors
Aviation Administration	*Please contact the Aviation Department Chair or your advisor.*	
Bioscience	*Please contact the Biology Department Chair or your advisor.*	
Business Management	*Please contact the Business Management Department Chair or your advisor.*	
Computer Engineering Technology	EET 452W	Design Project
Computer Programming and Information Systems	BCS 430W	Senior Project
Computer Security Technology	CPS 405W	Senior Project
Construction Management Engineering Technology	CON 401W	Construction Project Management and Scheduling
Criminal Justice	CRJ 200W	Criminal Investigation
Dental Hygiene	DEN 221W	Community Oral Health I
	DEN 301W	Current Issues in Dental Hygiene
	DEN 401W	Health Science Research: Principles and Methods
	DEN 406W	Proposal and Grant Management for Health Programs
Electrical Engineering Technology	EET 452W	Design Project
Horticultural Technology Management	*Please contact the Urban Horticulture and Design Department Chair or your advisor.*	
Industrial Technology/Automotive Technology	AET 410W	Senior Project
Industrial Technology/Facility Management	MET 205W	Material Science
Interaction Design	ART 416W	Senior Project I
Law Enforcement Technology	CRJ 410W	Criminal Investigation
Manufacturing Engineering Technology	MET 205W	Material Science
	MET 410W	Senior Project
Mechanical Engineering Technology	MET 205W	Material Science
	MET 410W	Senior Project
Medical Technology	MLT 325W	Laboratory Management and Informatics
Nursing	NUR 215W	Developing Nurses' Ways of Knowing
Professional Communications	PCM 313W	Communication Theory
Science, Technology, & Society	STS 400W	Senior Seminar in Science, Technology, & Society
	STS 401W	Internship in Science, Technology, & Society
Security Systems	CRJ 410W	Criminal Investigation
Software Technology	SET 410W	Senior Project
Sport Management	SMT485W	Senior Seminar in Sport
Telecommunications Technology	*Please contact the Electrical Engineering Department Chair or your advisor.*	
Visual Communications: Art & Graphic Design	ART 416W	Senior Project I

Academic Service Departments

Air Force ROTC

The preparation of future Air Force officers is provided through the Air Force ROTC program. The curriculum provides the individual with a firm understanding of the concepts of aerospace power and the Air Force mission, organization, and operations.

Enrollment in the AFROTC is voluntary and accomplished through the fall and spring registration periods. Scholarships are available in many academic disciplines on a competitive basis. Approximately one-third of the students hold scholarships. Depending on the semester, approximately one-third of the cadet corps consists of women. All Air Force career fields are open to women, including pilot positions.

General Program

Air Force ROTC offers an option of a three-year or four-year program. The program consists of the General Military Course (GMC) during the freshman and sophomore years and the Professional Officer Course (POC) for the remaining two years of college. All cadets participate in a four-week training period during the summer between their sophomore and junior years. Those students who elect to participate in the three-year option will complete the AFR 100 and 200 series of classes concurrently prior to attending field training.

Active Duty Obligation

There is no active duty obligation for enrolling in either the freshman or sophomore AFROTC courses. Students who accept award of an AFROTC scholarship incur a four-year active duty commitment. Students, upon commencement of the first academic term after completing field training, incur a four-year active duty commitment. Students who complete the Air Force ROTC program and receive a commission, incur a four-year active duty commitment. Flying officers serve additional commitments from the time they complete their pilot training.

Air Force ROTC Minor

The College also offers an Air Force ROTC minor for baccalaureate students enrolled at Farmingdale who wish to enhance their studies with a minor. Visit the webpage or the section on minors in the college catalog.

For further information, contact the Department of Air Force ROTC at 631 794-6307 or 6308.

Biology Department

The Biology Department, which offers a four year degree program in Bioscience, provides a broad range of introductory courses and electives in support of the various curricula offered by the college, including Nursing, Dental Hygiene, Medical Laboratory Technology and others. In addition, several courses offered by the Biology Department fulfill the Natural Science General Education requirements and Liberal Arts electives.

The department offers a range of courses in various fields of Biology, including Human Biology, Anatomy & Physiology, Medical Microbiology, Nutrition, Botany, and Entomology. Most of the courses offered by the department include both lecture and laboratory components, providing the students with both theoretical knowledge as well as hands-on experience. These courses introduce students to the complexities of living organisms, and train students in critical thinking skills and the scientific method.

Students not interested in pursuing a science-related career may choose from a variety of non-major courses, including the lab-based BIO 120 General Biology and BIO 123 Human Biology (4 credits each), or BIO 125 Principles of Nutrition and BIO 197 Human Biology, which are lecture-only (3 credits each).

Chemistry Department

The Chemistry Department offers courses to students who are planning to enter a baccalaureate program and/or to those whose goals include more immediate employment.

A program which includes an emphasis in chemistry would be applicable to the following career areas: chemistry, chemical engineering, medicine, dentistry, pharmacy, biology, forensic science, allied health professions and other professions which require a foundation in science.

An emphasis in chemistry, which is designed to be transferrable to a baccalaureate program, may be taken under the auspices of the Liberal Arts and Sciences Department (consult the specific department for details).

In its supportive role, the Chemistry Department offers courses that fulfill the General Education Natural Sciences requirement. Also, the department offers additional support courses to students enrolled in the following areas (consult the department for details): Bioscience, Dental Hygiene, Medical Laboratory Technology, Nursing, and Science, Technology, & Society.

Economics Department

The Economics Department offers a four year degree program in Applied Economics, as well as a broad range of introductory courses and electives in support of the various two and four year curricula offered by the college. Students enrolled in courses such as Principles of Macroeconomics or Microeconomics, as well as other offerings, will be able to satisfy their Social Science General Education requirements and additional elective or program requirements.

The department offers a wide range of economics courses that provides students with a broad understanding of our economic system and its application to modern economic problems. These courses include basic Macroeconomics and Microeconomics that satisfy the Social Science requirements of the General Education Program and also serve as foundations for the Applied Economics and Business Management degree programs. The department also offers a number of service and elective courses such as Labor Economics and Labor Relations, and Engineering Economics to satisfy the curricular needs of other programs on campus.

English Department

English: Offerings in English are designed for a variety of purposes. Developmental English prepares students in the communication skills necessary for successful college-level work. Composition and literature courses involve the students in the achievement of greater writing and reading skills and in gaining insight into the human experience.

All courses are designed to provide the necessary background for a college education.

EGL 101 Composition I: College Writing is the first part of a required sequence in college essay writing. Students learn to view writing as a process that involves generating ideas, formulating and developing a thesis, structuring paragraphs and essays, and revising and editing drafts. The focus is on the development of critical and analytical thinking. Students also learn the correct and ethical use of print and electronic sources. At least one research paper is required. Completing the class with a grade of C or higher is a graduation requirement. Prerequisite(s):

Placement during advisement:

For placement in EGL 101 Composition: College Writing

Date of SAT Exam	Before March 1, 2016	After March 1, 2016
Minimum SAT essay score **OR**	7	5 Writing Subscore
Evidence-Based Reading and Writing Section Score OR	N/A	500 and higher
EGL 097 exit exam grade	Pass	Pass

For placement in EGL 097 Basic Writing Skills

Date of SAT Exam	Before March 1, 2016	After March 1, 2016
SAT essay score **OR**	6 or lower	4 or lower Writing Subscore
Evidence-Based Reading and Writing Section Score OR	N/A	Below 500
FSC Placement Test	Fail	Fail

Placement changes during the first week of class:

All students in EGL 097 and EGL 101 will complete a diagnostic placement exam on the first day of class and may be reassigned to either EGL 097 or EGL 101 based on the results of this exam.

Humanities: Offerings in the Humanities are designed to expose students to the humanistic tradition in the disciplines of philosophy, speech and the creative arts. All courses are designed to provide the necessary background for a college education.

History, Politics and Geography Department

The History, Politics, and Geography department offers a four year degree program in Geographic Information Systems, five academic minors and a broad range of introductory courses and electives in support of the various two and four year curricula offered by the college. Students enrolled in courses such as U.S. History to/since Reconstruction, Western Civilization I and II, and World Civilization I and II, as well as other offerings, will be able to satisfy their American History, Western Civilization, and Other World Civilizations General Education requirements and additional elective or program requirements.

The History program seeks to develop a broad historical perspective necessary for an understanding of our contemporary world. The course offerings include a study of the Ancient World, European and American history, and non-Western history. These courses serve as part of a liberal arts education and also provide the necessary background to pursue advanced courses. Upper level courses focus on specific countries/world regions, historical issues, and/or themes, including but not limited to science and technology, gender, media, religion, imperialism, terrorism, and healthcare. The objective of Political Science courses is to provide students with an understanding of the political system of the United States and other countries. Courses cover the structure of state, local and national government, comparison of the political processes in foreign governments, and the study of America's post-World War II foreign relations. Students are prepared for advanced courses in Political Science as well as to pursue careers involving knowledge of our political system. Upper level courses focus on specific countries/world regions, sub-disciplines in the field, and/or themes and issues, including but not limited to political theory, mass media, religion, popular culture, and the environment. (Prefix for Political Science is POL)

The Department's offerings in Geography enable students to expand their spatial knowledge of the earth and all of its human and natural complexities. To understand where things are found, why they are there, and how they develop and change over time. Courses are divided between technology-centric offerings, including introductory and advanced courses in geographic information systems (GIS), quantitative methods, cartography, and spatial analysis, as well as introductory and advanced courses in physical, environmental, and human geography. Students may also select from specialized topics-based courses in Geography including; urban geography, population geography, political geography, economic geography, medical geography, human-environment interactions, regional geography, remote sensing, and geospatial intelligence courses.

History, Politics, and Geography also houses the campus chapter of the Phi Alpha Theta: National History Honor Society. Well-qualified students are invited to contact the department secretary for more information.

Modern Languages Department

The Department of Modern Languages offers courses in elementary, intermediate and advanced Arabic, Chinese, French, German, Italian and Spanish which fulfill the foreign language requirement. In addition, the department offers several courses, some taught in English, which can be used as electives.

The study of foreign languages, provides insight into the culture and civilization of other peoples and develops critical and analytical thinking. In addition, language learning can be a specialized, career-oriented educational experience that meets life's practical needs. Knowledge of a second language can be an asset to those students seeking career and professional advancement in areas such as business, health, social services, and travel.

Physics Department

The Physics Department at Farmingdale State College provides its students with an understanding of the interactions among all forms of matter, energy, and space. Toward this end, the Department offers each student a physics education carefully tailored to suit his/her needs at all levels of baccalaureate education.

Students pursuing science-related or technically-oriented degrees take either the algebra-based College Physics sequence (PHY 135 and PHY 136) or the calculus-based Physics sequence (PHY 143 and PHY 144). Students who complete these sequences may also choose from a number of electives covering such fields as electromagnetic theory and modern physics.

Students not pursuing a science-related field of study may choose from among a diverse assortment of physical science courses, including astronomy, meteorology, geology, and the environment. These specialized courses for non-science students are taught by faculty with strong interest and expertise in the respective sub-disciplines. Students have the opportunity to taste the flavor of science and to appreciate its value to humanity in a technical society.

The Department of Physics offers a rich Minor program for those interested in extra rigor in the discipline.

The Department of Physics conducts research in experimental condensed matter physics, astrophysics, nuclear and particle physics. Students are heavily involved in all research investigations.

Psychology Department

Courses offered by the Psychology Department have been designed to expose the student to a broad spectrum of theories regarding the nature of scientific study of human behavior. In addition to meeting the specific requirements of Farmingdale State College, the courses assist the student in understanding and coping with processes experienced on a personal and societal level. The course offerings in Psychology seek to inform, stimulate, and promote an inquisitive attitude regarding scientific study of human behavior.

Sociology and Anthropology Department

Sociology is the scientific study of human social interaction. Our courses explore issues of diversity, the complexities of intimate relationships and family life, the causes and contours of inequality, and the workings of social institutions such as the educational system and mass media. Our overriding goal is to develop what the sociologist C. Wright Mills called the "sociological imagination" – specifically, to encourage students to understand their own personal lives and experiences in the context of larger social forces and processes, and to become more engaged and aware citizens. Courses in sociology are an excellent preparation for a variety of jobs in small businesses, large corporations, government agencies, non-profit organizations, community organizations, and research firms.

Anthropology deals with human evolution, cultural history, language, and sociocultural similarities and differences. Anthropology courses provide knowledge about the history, diversity, and development of the world's human populations. An anthropological perspective helps students appreciate and understand their position, and the position of others in our rapidly changing world.

The discipline of Anthropology provides students with the tools and perspectives necessary for understanding how humans and their cultures have developed and most critically, how we continue to develop and change our cultures and societies. The fundamental concepts, theories, and research methodologies of Anthropology provide students with useful tools for understanding human cultures and the various social institutions in which we all participate, enabling them to meet the many challenges of living and working in what has been termed "the global community."

Graduate Program Information Admissions Requirements:

■ A minimum GPA of 3.0 earned in a baccalaureate degree in the five years preceding application for entrance from an accredited post-secondary institution in technology, technology management, engineering technology, industrial technology, engineering, or closely related field.

■ Native speakers of foreign languages who have earned the minimum score, or better, on the Test of English as a Foreign Language (TOEFL) stated in the current FSC College Catalog.

All applicants who graduated more than five years ago will need to demonstrate substantial work experience related to their undergraduate field of study. Applicants will be evaluated based on educational, industrial, professional, and individual criteria.

Conditional admission may be granted at the discretion of the Graduate Program Coordinator.

It is anticipated that the College will have the opportunity to host international students attending on F-1 or J-1 visas in the Fall 2019 semester.

Transfer Students:
Applicants who have earned graduate credits at another accredited institution will be evaluated based on the criteria above and are eligible to receive a maximum of six credits by evaluation toward their degree.

Credit by Evaluation
Students enrolled in the graduate program may apply for and be granted up to 6 credits through either Credit by Evaluation or transfer credits from another institution. A fee of $40 per credit will be charged for each examination, and this fee is subject to change without prior notice. Credit may be granted for coursework where the individual has gained knowledge and mastery through experience or study at a non-accredited institution. Student must apply for credit by evaluation by submitting a written request to the Graduate Program Coordinator detailing the coursework for which credit is being sought and the manner by which mastery of this coursework was attained. Approval for seeking credit is granted at the discretion of the Graduate Program Coordinator or Dean. The Graduate Program Coordinator will determine the method of evaluation and make appropriate arrangements. Credit gained through credit by evaluation shall be considered full college credit and need not be made up by other courses. However, no achievement points shall be awarded for credits granted through evaluation.

How to Apply:
Applicants are required to submit a formal application and send the required documents to the Admissions Office at:

Graduate Admissions Processing
Office of Admissions-Laffin Hall
Farmingdale State College
2350 Broadhollow Rd
Farmingdale, NY 11735

The application is located on the Farmingdale website:
http://www.farmingdale.edu/admissions/apply-now.shtml

Required Documents:
■ Official transcripts from all prior colleges/universities attended. Previous or current Farmingdale students do not need to send official documents of their coursework at Farmingdale but must list Farmingdale as a College attended on the application.

■ Personal Statement- sent via email to admissions@farmingdale.edu with subject line "Graduate Admissions Processing" or by mail to address above.

Applicants who are not applying directly from the undergraduate program are encouraged to submit a resume detailing relevant work experience.

Applicants may submit letters of recommendation for consideration.

Application Deadlines:

Fall acceptance – May 1

Spring acceptance – November 1

Applications for admission are evaluated on a first come, first served basis. Applications will not be considered until all required information and documentation is received. The College cannot guarantee that applications received after the application deadlines will be considered. Applications of applicants who meet the general admission requirements will be forwarded to the Graduate Program Coordinator who will make the final admissions decision.

Non-Matriculated Graduate Students
Non-matriculated students who wish to take graduate level courses are required to submit a copy of their official transcripts from all prior colleges and universities attended to the Admissions Office along with a copy of their resume. Students must also complete an application at the following link:
www.farmingdale.edu/engineering-technology/ms-technology-management/index.shtml
A $50 non-refundable processing fee will be assessed.

Non-matriculated students may earn a maximum of 6 credits, after which they must seek admission to the program or request permission from the Graduate Program Coordinator to remain as a non-matriculated student.

Non-matriculated students must maintain the same academic standards as matriculated students, i.e. a grade point average of 3.0 or above to remain in good academic standing (a GPA of 3.0 will not ensure admission to a graduate program). If suspended from the College, the student may appeal for academic reinstatement in writing to the Graduate Program Coordinator.

Admissions Appeals:
Applicants who are denied admission and wish to request reconsideration of their application must submit a formal request in writing to the Graduate Program Coordinator.

Academic Information for Master's Degree

Grades and Achievement Points (percentage equivalent per credit hour):

Minimum Grade Percentage Equivalent	Grade	GPA Equivalent	Interpretation
90.0	A	4.0	Excellent
80.0	B	3.0	Good
70.0	C	2.0	Unsatisfactory
0*	D	0.0	Failure
	I		Incomplete
	W		Withdrawal
	UW		Unofficial Withdrawal

*All grades below 70.0 receive a D and are considered failing grades.

The cumulative grade point average is determined by the achievement point value of each grade by the credits designated to each course, and then dividing the total achievement points by the number of credits carried.

Students whose cumulative grade point average falls below 3.0 in any given semester are placed on academic probation and given one semester to demonstrate improvement. Students who fail to demonstrate improvement will be considered for suspension or dismissal.

Academic Standing for Graduate Students:

Good Academic Standing – A student is considered to be in good academic standing by maintaining a cumulative grade point average of 3.0 or higher.

Academic Probation – The purpose of academic probation is to alert the student and the institution of problems associated with the student's academic performance and to implement strategies for improvement. Students on academic probation are permitted to continue with their studies but are expected to pursue strategies for improvement and their raise level of academic performance.

Academic Suspension – Students on academic probation who fail to raise their level of academic performance in the semester following their placement on academic probation (not including summer sessions or winter intersession), are subject to suspension. Students suspended for poor academic performance are not permitted to continue their studies at the College.

Appeal of Academic Suspension – Any student who has been suspended for academic reasons may appeal that decision by submitting a petition, in writing, to the Graduate Program Coordinator requesting a review of the decision. The appeal should include supporting evidence such as medical explanations and changes in grades that might justify a reversal of academic suspension.

Academic Readmission – Academic readmission refers to the process by which a matriculated graduate student seeks permission to return to Farmingdale State College after an absence. Students who have discontinued their attendance for one or two academic semesters and wish to apply for readmission to complete their degree are required to meet with the Graduate Program Coordinator to discuss their intentions and evaluate their academic record. Students who withdrew in poor standing or who were academically suspended will be expected to present evidence that they are capable of improved academic performance on return. For further information, contact the Graduate Program Coordinator.

Residency Requirement:

Candidates for a Master's degree must complete a minimum of twenty-four (24) semester credits at the College. The twenty-four (24) credit minimum will consist of the final degree credits. Consideration will be given to credits earned through study abroad, exchange programs, or advanced standing (e.g., credit by evaluation, etc.). Any exception to the residency requirements are at the discretion of the Graduate Program Coordinator.

Requirements for Graduation

1. Recommendation by student's mentor and the Graduate Program Coordinator.
2. Satisfactory completion of the minimum number of credits required by the program.
3. Satisfactory completion of coursework in the students chosen track of study.
4. Satisfactory completion of the senior project and acceptance of a completed thesis if applicable to the student's chosen track of study.
5. A cumulative GPA of 3.0.
6. All outstanding incomplete grades must be resolved.
7. The residency requirement of 24 credits successfully completed has been met.

Graduate Student Financial Aid

Graduate students at Farmingdale State College may be eligible for federal loans to help them finance their education. There are two federal loan options: *Federal Direct Unsubsidized loans* and *Federal Graduate PLUS loans*. Graduate students must be enrolled in 6 or more semester credits that apply to their current academic program and meet the Graduate Satisfactory Academic Progress Standards to be eligible for federal loan funding.

Federal Unsubsidized Loan
Graduate students can borrow up to $20,500 in Federal Direct Unsubsidized loan funding (if eligible) each year. To determine eligibility students must complete a FAFSA application each year.

Graduate Plus Loan
To apply for the Graduate PLUS loan online, go to www.studentloans.gov. A credit check is performed as part of the application process. Applicants will receive an immediate credit decision. Award recipients must also complete an additional Master Promissory Note (MPN) for the Graduate PLUS loan at www.studentloans.gov.

Alternative (Private) Loan
Alternative, or private, loans are an additional resource for students to borrow from outside lenders. You can search "Alternative Student Loans" on-line.

Graduate Satisfactory Academic Progress Standards for Federal Financial Aid

The Graduate SAP Standards are utilized solely to determine federal financial aid eligibility. SAP financial aid eligibility standards do not cancel, modify or override the College Academic Standards Policy.

Qualitative and Quantitative SAP Standards

The following SAP standards must be met:
1. Cumulative Grade Point Average (GPA) Component
   a. A student must be in good academic standing to receive federal financial aid. A student must maintain a raduate level institutional cumulative GPA of 2.75.

2. Minimum Completion Rate for Attempted Credit Hours – Pace (Quantitative) Component
   a. A student must demonstrate progress by accumulating academic credits at a rate that indicates graduation in a timely manner. A student who is not progressing toward graduation at a defined Completion Rate will not receive federal financial aid regardless of GPA.
   b. A student must complete at least 75 percent of all cu mulative attempted credits hours in order to be eligible for federal financial aid. The cumulative attempted credit hours include all accepted transfer credits.
      i. The following grades are considered to be attempted but not successfully completed: W, F, N, UW, UWF
      ii. Courses repeated will count in attempted credit hours.

Financial Aid Warning/Suspension

A student who fails to maintain the cumulative GPA and/or meet Pace (completion rate) standard will be placed on Academic Warning for the next registered semester.

A student who continues to fall below the standards for a subsequent semester after the warning period, will be placed on Academic Suspension and be ineligible to receive federal financial aid until all SAP standards are met.

Students may appeal the loss of eligibility if mitigating circumstances (events totally beyond the student's control) occurred during the preceding semester.

Graduate Tuition and Fees***

Tuition

N.Y.S. Resident
Full Time...$5,435.00 per semester
Part Time..$453.00 per credit

Non-N.Y.S. Resident
Full Time...$11,105.00 per semester
Part Time..$925.00 per credit

Room & Board

Residence Hall
Single ....$4,324.00 per semester
Double ....$3,887.00 per semester
Residence Hall Damage Deposit ....$100.00 per academic year

Common Area Damage Deposit ....$75.00 per academic year

Board
Carte Blanche
    7 day Meal Plan .... $ 2,495.00 per semester
    $150.00 declining dollars
Carte Blanche
    Premium 7 day Meal Plan ..... $2,575.00 per semester
    $250.00 declining dollars

The Carte Blanch meal plan allows for unlimited access to the resident dining location (subject to brief closures for meal transition periods), plus four meal passes per semester.

College Fees

College Fee
Full Time... $12.50 per semester
Part Time.. $0.85 per credit

Technology Fee
Full Time... $207.00 per semester
Part Time.. $17.25 per credit

Student Activity Fee
Full Time... $100.00 per semester
Part Time.. $8.00 per credit

Health Service Fee
Full Time... $135.00 per semester
Part Time.. $11.25 per credit

Transcript Fee
Full Time... $10.00 per semester
Part Time.. $10.00 per semester

Other Fees, Fines and Charges

Student Health Insurance*
Late Registration Fee......................... $30.00
Late Payment Fee .... up to $50.00 per occurrence depending on liability
Program Change Fee** $20.00
Credit by Evaluation............................ $20.00 per credit ($60.00 if consultant is required to be hired)
Lost ID Card Replacement $25.00
Return Check Fee $20.00
Vehicle Registration Fee .... $30.00 per year, per vehicle
Parking Fines .... $35.00 per violation
Parking in Handicap Spot................... $150.00 per violation
Impound Vehicle Storage Fee............. $10.00
Boot Fee... $35.00

* Student Insurance provides coverage for both Sickness and Accident Insurance. All students residing in campus housing will have the charge added to their bill, and are required annually to sign a waiver and submit proof of personal insurance (by the published deadline) if they do not want the coverage. Optional coverage is available for commuter students. The brochure, waiver form and other information is available online on the Auxiliary Service Corporation (ASC) page of the Farmingdale State College website. As of the publication date of the catalog, this is the fee for the 2017-2018

academic year, and represents an ESTIMATE ONLY. The final premium amount is pending approval by the NYS Department of Financial Services. Rates are subject to change without notice by action of Farmingdale State College of New York, Auxiliary Services Corporation at Farmingdale.

**The College reserves the right to charge a $20.00 change-of-schedule fee after the official Drop/Add period has ended.

***Please note that tuition and fees are subject to change without notice by action of Farmingdale State College and/or SUNY Board of Trustees.

Policies and General Procedures

Unless otherwise stated, all policies and procedures detailed in previous sections of this catalog apply equally to all Farmingdale students. Please refer to the undergraduate sections for important information on the following:

• Student Immunization Policy (Health and Wellness Center)
• Residence Hall Information
• Student Code of Conduct
• Withdrawals (from a course, from the semester, from the College)
• Non-attendance Policy
• Appeal Process for Credit by Evaluation
• Repeating Courses
• Change of Grade
• Grade Grievance Procedure
• Incompletes
• DegreeWorks
• Campus Resources and Facilities

Master Degree

Technology Management

Dr. Gonca Altuger-Genc, Graduate Program Coordinator
fscgraduate@farmingdale.edu
School of Engineering Technology
631-420-2117

Master of Science Degree
The Master of Science Degree in Technology Management at Farmingdale State College (FSC) is intended to graduate qualified professionals capable of taking leadership roles in designing, developing, improving, and transforming the industrial systems that are the basis for much of the industry in the region. This program will provide an exceptional and affordable opportunity for advanced study in the critical field of technology management to qualified graduates of baccalaureate programs in technology, engineering technology and related fields.

The program consists of a twelve-credit core in technology management, nine credits of coursework in one of two tracks, three to nine credits of elective courses, and an elective three-credit capstone master's project or an elective six-credit master's thesis. The multi-disciplinary program builds on the strengths of the faculty, laboratories, and equipment of three undergraduate departments in the School of Engineering Technology: Mechanical Engineering Technology, Electrical/ Computer Engineering Technology, and Architecture and Construction Management.

Drawing on these strengths and addressing the industrial needs in the region, the program has two tracks:
▪ Track I: Electrical and Mechanical
▪ Track II: Construction Management

Typical Employment Opportunities

Project Manager
Program Manager
Engineering Program Manager
Systems Manager
Technical Program Manager
Applications Manager
Engineering Lab Manager
Chief Technical Officer
Equipment Sales Manager
Construction Manager

Technology Management (MS) Program Outcomes:

▪ Graduates will have knowledge and competency in the field of technology management with an emphasis on engineering technologies.
▪ Graduates will have the knowledge and skills necessary to be imaginative, critical thinkers who are able to discover problems and questions, develop logical answers, and apply effective solutions in the practice of technology management.
▪ Graduates will have knowledge of ethical behavior in professional positions in all aspects of technology management.
▪ Graduates will have competency in the management and leadership of technology in global industry.
▪ Graduates will have an awareness of diversity in the various fields of technology.
▪ Graduates will have skill to evaluate technical management issues in the context of ethical, technological, structural, cultural, human and environmental factors.
▪ Graduates will have skill to develop and foster critical thinking, analysis, planning, and communication.
▪ Graduates will have knowledge and skills in the improvement of productivity, quality control, and competitiveness in all aspects of technology management through collaborative relationships with regional industries.

Program of Study
Required:
Core Courses .... **(12 credits)**
ETM 501 Engineering Quality Management
  and Reliability 3
BUS 502 Project Management..3
ETM 503 Research Methods...3
BUS 504 Technology Management Ethics and Policies 3
Track I: Electrical and Mechanical (EM)
Major Required Courses .... **(9 credits)**
ETM 510 Energy and Power Management Analysis 3
ETM 511 Nanotechnology Principles and Applications..............3
ETM 520 Control Systems Management 3
Track II: Construction Management (CM)
Major Required Courses .... **(9 credits)**
ETM 530 Residential Development Management 3
ETM 531 Construction Cost Analysis and
  Advanced Estimating...3
BUS 532 Legal Aspects of Construction Management..............3

Technical Elective Courses.................................. (3-9 credits)
ETM 512 Applied Thermal Energy Systems................................3
ETM 513 Computer Applications in Engineering Technology. ...3
ETM 514 Engineering Analysis 3
ETM 521 Semiconductor Devices and Integrated Circuits 3
ETM 533 Heavy Construction Operation and Equipment..........3
ETM 611 Modern Energy Conversion Technologies...................3
ETM 612 Robotics, Automation and Control Systems 3
ETM 613 Emerging Clean Energy Technologies........................3
ETM 623 Optical Communications 3
ETM 624 Fundamentals of Photovoltaics, Photonics................3
BUS 630 Decision Making and Risk Management.....................3
ETM 631 Construction Contracts...3
ETM/BUS 680 Special Topics 3
Elective Capstone Courses................................(3-6 credits)
ETM/BUS 670 Master's Project..3
OR
ETM/BUS 671 Master's Thesis...6
Total Credits: 30

Notes:
1. There are three options for degree completion:
   Option 1: Three technical elective courses
   Option 2: ETM 670 Master's Project Plus two
   technical electives
   Option 3: ETM 671 Master's Thesis plus one
   technical elective
2. Business courses cannot exceed 12 credits.
3. Students will file an Intent to Graduate form after completing
   24 credits. Students may qualify for graduation after
   completing 30 credits.
4. The program courses are coded as follows:
   50X: Core courses
   51X, 61X: Courses with emphasis on mechanical
     engineering technology
   52X, 62X: Courses with emphasis on electrical
     engineering technology
   53X, 63X: Courses with emphasis on
     construction management
   67X: Capstone courses
   68X: Special topics

PROGRAMS OF STUDY

Bachelor Degrees

Aeronautical Science - Professional Pilot

Dr. Jeanne Radigan, Acting Chair
Aviation Dept.
Jeanne.Radigan@farmingdale.edu
631-420-2308
School of Engineering Technology

Bachelor of Science Degree

Farmingdale State College's Department of Aviation offers the premier collegiate aviation program on Long Island, and in the region. The professional pilot program is currently accredited by the Aviation Accreditation Board International through February, 2023. The degree program provides training for entry-level pilot positions within the air transportation industry. Opportunities also exist in Federal/State Government, Corporate/ Business Aviation sectors and the United States Military.

A grade of "C" or better is required in all AVN courses (including electives) for graduation from the Professional Pilot Program. Students who are unable to obtain a minimum grade of "C" after the second attempt in any AVN classes must obtain permission from the Chairperson of the department to remain in the program. This will apply for each course that needs to be retaken for the third time.

Flight training students must maintain a cumulative GPA of 2.0 and must be in Good Academic standing at the completion of each semester or they may be removed from their flight training schedule.

Please refer to the Safety and Technical Standards in the front section of the College Catalog.

Aeronautical Science-Professional Pilot (BS) Program Outcomes:

Graduates will possess the necessary knowledge, skills and attitudes to competently and ethically function as professional pilots in the aviation industry.

Specifically, the graduate of the Aeronautical Science-Processional Pilot degree program will use the knowledge and skills obtained in the program to:

■ demonstrate an ability to apply knowledge of mathematics, science, and applied sciences as a professional pilot

■ analyze and interpret data relating to aviation

■ function on multi-disciplinary teams as a professional pilot

■ exhibit an understanding of ethical and professional responsibility of aviation professionals

■ communicate effectively, including both written and verbal forms

■ recognize the need for, and an ability to engage in, life-long learning

■ exhibit knowledge of contemporary issues relating to professionals in the aviation field

■ demonstrate an ability to use the techniques, skills, and modern technology necessary for professional aviators

■ analyze the national and international aviation environment

■ apply pertinent knowledge in identifying and solving problems confronting professional pilots

The Pro-Pilot Program prepares the student with the following Certificates and Ratings:

■ Private Pilot Certificate

■ Instrument Rating

■ Commercial Pilot Certificate

■ Certified Flight Instructor (CFI) Certificate

In addition, the student will have the option to complete the following Certificates and Ratings:

■ Multi Engine Land

■ Multi Engine Instrument Land

■ Multi Engine Instructor

■ Airline Transport Pilot Certificate

■ Certified Flight Instructor Instrument (CFII) Certificate

Students pursuing flight training in their program must hold a 1st, 2nd, or 3rd class FAA medical Certificate prior to starting flight training. The Department of Aviation strongly recommends students obtain a First Class Medical prior to enrolling in the Professional-Pilot Program. A listing of FAA medical examiners can be obtained by contacting the FAA's Flight Standards District Office (FSDO) at Republic Airport (631-755-1300).

Students may select to fly during the summer. Students are required to provide their own transportation to/from our Flight Center located at Republic Airport (FRG) in Farmingdale about two miles from the campus.

Flight Training Costs: Flight training fees and related equipment and publications are in addition to college tuition and fees. Flight fees must be paid each semester regardless of scheduled flight time.

Program of Study
Required:
Liberal Arts and Sciences .... (61 credits)
EGL 101 Composition I: College Writing (GE)............................3
EGL 102 Composition II: Writing About Literature......................3
ECO 156 Principles of Economics (Macro) (GE) 3
ECO 157 Principles of Economics (Micro) (GE) 3
Basic Communication - 200 level or higher (GE)........................3
American/Western/Other World Civilizations (GE)......................3
MTH 129 Pre-Calculus with Applications (GE) 4
MTH 130 Calculus I with Applications 4
Foreign Language (GE)..3
Humanities (GE) 3
The Arts (GE)..3
PHY 135 College Physics I (GE) 4
PHY 136 College Physics II 4
PSY 101 Intro to Psychology 3
PSY 331 Industrial/Organizational Psychology..........................3
Liberal Arts & Sciences Electives...12
Required: Aeronautical Science - Lecture........... (57 credits)
AVN 101 Aviation Industry: A History Perspective.....................3
AVN 104 Private Pilot Ground..3
AVN 201 Safety Ethics..3
AVN 202 Aviation Meteorology...3
AVN 208 Instrument Pilot Ground 3

AVN 211 Commercial Pilot Ground 3
AVN 300 Government in Aviation 3
AVN 309 Certified Flight Instructor-Ground...............................3
AVN 320 Air Carrier Flight Operations 3
AVN 321 Physiology of Flight 3
AVN 322 Advanced Aircraft Systems...3
AVN 400 Aviation Law 3
AVN 421 Gas Turbine Engines...3
AVN 422 Aerodynamics and Aircraft Performance 3
AVN 423 Crew Resource Management.......................................3
AVN 424 Advanced Avionics and Cockpit Automation 3
AVN 425 Safety of Flight...3
AVN 447 Capstone Professional Pilot Seminar.........................3
AVN Aviation Electives*..3
Required: Aeronautical Science - Flight Training... (5 credits)
AVN 105 Private Pilot – Flight to Solo 1
AVN 106 Private Pilot – Flight to Certificate..............................1
AVN 209 Instrument Pilot – Flight...1
AVN 212 Commercial Pilot – Flight..1
AVN 310 Certified Flight Instructor or
AVN 410 Commercial Multi Engine Pilot Rating.........................1
Total Credits:...123

Notes:

1. Students entering the program with a Private Pilot's certificate must enroll in AVN 112 Private Pilot Proficiency. Students with any flight experience may also be required to enroll in AVN 112 at the discretion of the Chief Flight Instructor. Students must complete all required flight certificates and ratings above the Private Pilot Certificate at the Farmingdale State College (FSC) Flight Center in order to graduate with a FSC Professional Pilot Degree.

2. Flight Courses must be completed within a year from the date a student registers. Within this time frame a student must either 1) Successfully complete the course and be issued a grade, OR 2) Withdraw from the course, due to the following extenuating circumstances: Active Military Obligations, Medical conditions requiring removal from active flight status for a duration of 60 consecutive days or more. If neither of the above occurs, a failing grade will be assigned.

3. Students holding flight certificates and ratings above the Private Pilot Certificate are permitted to flight train but cannot graduate with a Professional Pilot degree.

4. All ground courses (AVN 104, 208, 211, 309) require successful completion of an FAA administered exam at the end of the course. The FAA exam can only been taken after receipt of a written endorsement from the course instructor. This instructor endorsement is given to those students who demonstrate sufficient understanding of the subject matter by achieving an average of 80 or better for all of the course exams during the semester. Students who don't receive the endorsement to take the FAA exam or those who do not achieve a score of 70 or better on the FAA exam will be given an F for the course. Students that fail a ground course will not be permitted to continue the flight training associated with that ground course until they successfully pass the course. Students that fail a ground course twice will be removed from the Professional Pilot program and from flight training under Part 141 and cannot be endorsed by the College for reduced aeronautical experience under the FAA Letter of Authority (LOA) to Farmingdale State College.

Applied Economics

Dr. Xu Zhang, Chair
Economics Department
Xu. Zhang@farmingdale.edu
631-794-6260
School of Business

Bachelor of Science Degree
The Bachelor of Science program in Applied Economics is a comprehensive course of study that prepares students for careers in business, financial institutions, national, state, and local government, public and private research organizations and nonprofit organizations. Consistent with the mission of the College, the program trains students to be real-life problem solvers so that upon graduation they are ready to be employed in entry and junior-level positions in business and industry, the public sector, and non-profit sector.

Graduates will have the skills and abilities to meet the diverse needs of regional, national, and international employers in both the private and public sectors, working in occupations such as entry-level economist, quantitative analyst, business analyst, financial analyst, regional planner, manager, and research analyst. The program exposes students to a broad spectrum of economic concepts and applications, providing them with a strong background from which to pursue graduate study in economics and the social sciences, business and finance, law, public administration, journalism, and education.

Students must complete 60 hours in the liberal arts (inclusive of the general education core). In their first two years of the program, students will complete their general education requirements including mathematics, the two introductory courses in economics, and begin to take courses in the economics core.

The program culminates with a capstone course sequence of Economics Research and Reporting followed by Applied Economic Analysis/Senior Project. In the first course, students receive extensive instruction in the methods and techniques of economic research and report writing, including data and statistical analysis, and the generation and presentation of reports for the general public. Students, in Applied Economic Analysis/Senior Project are asked to undertake, complete, and present the results of an applied research project.

Typical Employment Opportunities:
Market Research Analysts
Quantitative Analysts for National, State, and Local Governments
Financial Analysts for Banks and Other Financial Institutions
Budget Analysts
Insurance Agent
Data Analysts

Applied Economics (BS) Program Objectives:
- Graduates will be able to understand basic economics principles, important economic issues, and major economic institutions.
- Graduates will be able to comprehend economic concepts and analytical techniques and apply them to a wide variety of economic issues and problems of the U.S. and world economies.
- Graduates will be trained to read and understand economic literature.
- Graduates will have the opportunity to compile and analyze complex economics data to address real-life economics issues.

- Graduates will be trained to write economics reports and present economic analysis in comprehendible terms.

Program of Study
Required:
Liberal Arts and Sciences .... (36 credits)
EGL 101 Composition I: College Writing (GE)............................3
EGL 102 Composition II: Writing About Literature.....................3
Speech (any SPE Course) (GE) 3
Humanities (GE) 3
The Arts (GE)..3
American/ Other World / Western Civilization (GE) 6
Foreign Language (GE)...3
ECO 156 Principles of Economics - Macro (GE).......................3
ECO 157 Principles of Economics - Micro (GE).......................3
Natural Science (GE)..3
MTH 110 Statistics (GE) 3
Additional Required Courses................................ (10 credits)
MTH 129 Precalculus with Applications or
MTH 117 Precalculus Modeling for Life and Social Sciences....4
Social Sciences Electives (ANT, POL, PSY, SOC) 6
Required: Economics................................... (33 credits)
ECO 250 Quantitative Analysis for Economics.........................3
ECO 260 Intermediate Microeconomics **OR**
  ECO 262 Managerial Economics 3
ECO 270 Intermediate Macroeconomics **OR**
  ECO 255 Money and Banking....................................3
ECO 380 Econometrics 3
ECO 490W Economic Research and Reporting.........................3
ECO 491 Applied Economic Analysis /Senior Project................3
Upper level Economics Electives (300 level and above) 15
Additional Electives................................. (41 credits)
Additional free electives 41
Total Credits:...120

Notes:
1. Students must take at least two 400 level Economics electives
2. Students must receive a grade of C or better in required core courses.

Applied Mathematics

Dr. Carlos Marques, Chair
Mathematics Department
Carlos.Marques@farmingdale.edu
631-420-2182
School of Arts & Sciences

Bachelor of Science Degree
The Applied Mathematics Bachelor of Science program provides a solid background in mathematics and its applications within a highly supportive and stimulating learning environment. Mathematics is the language of Science and Technology. Thus the Applied Mathematics program is at the very heart of the mission of Farmingdale State College. Students benefit from small class size, personal attention, and a network of social and academic opportunities including our Mathematics Club, the Center for Applied Mathematical Sciences, the Mathematics Tutoring Center, and the Undergraduate Teaching Assistant program. Students will acquire strong quantitative and analytic skills, incorporating the use of powerful state-of-the art computational technology in advanced problem solving and research projects.

All students will complete a major project in our Seminar in Applied Mathematics which will involve collaborative work. The students have a choice of two tracks within the Bachelor of Science program: the Traditional Track and the Financial Mathematics Track. Both of these tracks share a common core of required General Education courses and of required Mathematics courses. Students in the Traditional Track choose additional elective courses in mathematics and in other fields of their interest, while students in the Financial Mathematics Track must take a set of prescribed courses in financial mathematics and in related fields such as Economics, Business, as well as some elective courses. (See the Program of Study)

Students can combine the Bachelor of Sciences in Applied Mathematics (Major) with a Minor in another field, or even obtain a Dual Major in mathematics and a related field. These minors and dual majors enable students to pursue inter-disciplinary interests which enhance future employment opportunities.

Applied Mathematics graduates possess the skills to enter a wide variety of excellent careers. An applied mathematics degree provides the background for jobs in business, telecommunications, finance, actuarial science, operations research, transportation, and education. Appropriate elective courses in areas such as computer science, engineering technology, economics, or natural sciences permit students to apply their mathematical knowledge to these fields, opening employment opportunities in additional careers, including pharmaceutical research, information services, and quality control. Applied Mathematics graduates are also well prepared to continue their studies at the graduate level in various fields of applied mathematics, finance, applied sciences, or mathematics education.

Typical Employment Opportunities
Financial Analyst
Economical Analyst
Marketing Researcher
Actuarial Assistant
Statistician
Bio Statistician
Environmental Mathematician
Insurance Manager
Secondary Education Teacher
Information Consultant
Imaging Scientist
Quality Control Manager

Applied Mathematics (BS) Program Outcomes:
- Graduates will know the methods and techniques of applied mathematics and will understand the underlying theoretical foundations
- Graduates will have the knowledge and skills needed to be productive problem solvers and critical thinkers
- Graduates will possess both depth and breadth in the mathematical sciences
- Graduates will possess important contextual skills including computer skills, communication skills, and the ability to collaborate with others on mathematical projects.

Program of Study
Required:
Liberal Arts and Sciences Courses .... (30 credits)
EGL 101 Composition I: College Writing (GE)............................3
EGL 102 Composition II: Writing About Literature.....................3
Humanities (GE) 3
The Arts (GE)..3
American/Other World/Western Civilization History (GE)..........3

Foreign Language (GE)..3
Social and Bahavioral Science (GE)..............................3
Natural Science (GE)..3
General Education Elective (GE) 3
Liberal Arts and Sciences Elective...............................3
Required Mathematics Courses for both Tracks (40 credits)
MTH 150 Calculus I (GE)...4
MTH 151 Calculus II (GE)..4
MTH 245 Linear Algebra...3
MTH 250 Introduction to Graph Theory and Combinatorics (for
Traditional Applied Mathematics Track).......................................
OR
MTH 246 Introduction to Financial Mathematics (for Financial
Mathematics Track)..3
MTH 252 Calculus III...4
MTH 253 Differential Equations....................................4
MTH 290 Methods of Proof in Advanced Mathematics 3
MTH 354 Principles of Real Analysis 3
MTH 360 Applied Probability and Statistics...............3
MTH 365 Vector Calculus...3
MTH 405 Seminar in Applied Mathematics 3
BCS 120 Foundations of Computer Programming I..................3
Traditional Applied Mathematics Track .... (51 credits)
Math Upper Division Electives 6
Math Related Electives 15
General Electives 15
Upper Division Electives 15
Financial Mathematics Track................................ (51 credits)
MTH 346 Continuous-Time Finance..............................3
MTH 490 Topics in Applied Mathematics.....................3
(Financial Engineering)
BUS 101 Accounting I..3
ECO 380 Econometrics 3
Math Related Elective 12
General Electives 15
Upper Division Electives 12
Total Credits:...121
This program fulfills all Liberal Arts and Sciences requirements.

Applied Psychology

Dr. Marya Howell-Carter, Chair
Psychology Department
Marya.Carter@farmingdale.edu
631-420-2725
School of Arts & Sciences

Bachelor of Science Degree
The Applied Psychology program leads to a Bachelor of
Science degree with a concentration in Industrial/Organizational
Psychology. The program focuses on developing the student's
ability to use the core knowledge and analytical skills of the
discipline in order to address practical problems important to
local business and industry. This program prepares students to
be real-life problem solvers in the emerging field of Applied
Psychology. Students will learn the foundations of Industrial/
Organizational Psychology including personnel management,
organizational behavior, and organizational development. The
program's career objectives are to prepare students for
meaningful and rewarding entry-level positions in business and
human resource management. This "hands on" program will
develop skills that will enable its graduates to help businesses

efficiently recruit, develop, and organize their human resources.
Commensurate with the expectations of a BS in Applied
Psychology and the current requirements of entry-level jobs in
the area of Industrial/Organizational Psychology, students will
successfully complete an applied research project or an
internship. Furthermore, if the program graduates' educational
aspirations include advanced professional training, they will
have had the theoretical knowledge, analytical skills, and
exposure to effective writing necessary for successful entry and
performance in the increasingly competitive and specialized
graduate programs across many fields of psychology.
In addition to curricular options, the College has a vibrant
Psychology Club and an honor society (Psi Chi).

Applied Psychology (BS) Program Outcomes:
■ Graduates will have the knowledge and skill to successfully
  conduct and report research in Applied Psychology.
■ Graduates will demonstrate technical competence with regard
  to general psychological concepts and theories as well as the
  content and technologies of Applied Psychology.
■ Graduates will possess the competencies required to
  perform entry level positions in business and human
  resource management.

Program of Study
Required:

Liberal Arts and Sciences .... (63-64 credits)
EGL 101 Composition I: College Writing (GE)............................3
Humanities (GE) 3
SPE 130 Public Speaking ....
OR
SPE 202 Interpersonal Communications 3
The Arts (GE)..3
American/Other World/Western Civilization History (GE)...........3
MTH 116 College Algebra (GE)...................................4
MTH 110 Statistics (GE)...3
Foreign Language - Level II (GE)...................................3
PSY 101 Introduction to Psychology (GE)...................3
SOC 122 Introduction to Sociology 3
EGL 310 Technical Writing...3
BCS 102 Computer Concepts and Applications 3
Social Science (non-Psychology electives)................................6
Math/Science elective by advisement 3-4
Biology with lab (GE) 4
Biology elective with lab..4
Liberal Arts and Sciences electives............................6
Psychology Core.. (32 credits)
PSY 234 Social Psychology 3
PSY 272 Cognitive Psychology 3
PSY 301 Learning 3
PSY 348 Statistics for Psychology...............................3
PSY 360 Research Methods 4
Any 200 level or higher Psychology (PSY) course....................15
Industrial/Organizational
Psychology Concentration....................................... 15 Credits
PSY 311W Organizational Behavior.............................3
PSY 331 Industrial/Organizational Psychology..........................3
PSY 414 Applied Personnel Psychology 3
PSY 442 Applied Psychology/Internship/Senior Project I 3
PSY 443 Applied Psychology Senior Project: Career Planning....3
Free Electives...12
Total Credits:..122-123

Notes: The Bachelor's Degree in Applied Psychology does not lead to licensure. All licensure in Psychology in New York State requires an advanced (Master's or Doctoral) degree.

Architectural Engineering Technology

Prof. Orla Smyth LoPiccolo, Chair
Architecture & Construction Management Department
Orla.LoPiccolo@farmingdale.edu
631-420-2024
School of Engineering Technology

Bachelor of Science Degree

The Architectural Engineering Technology (ARC) program synthesizes the aesthetic, technical and functional elements of building design and construction. The academic thrust of the program is applied technology. The students in this program will be educated in the process of building design from concept to completion.

The purpose of the Architectural Engineering Technology program is to prepare students for careers in architectural, structural, and mechanical aspects of the design and construction of buildings. The students will be educated in the process of carrying design projects from schematics through construction. In addition to preparing students for meaningful and rewarding careers at the Bachelor's level, the program will also prepare students for successful entry in the professional and non-professional graduate programs in architecture and other areas.

This program is accredited by the Engineering Technology Accreditation Commission of ABET, www.abet.org

Architectural Engineering Technology (BS)
Program Outcomes:

■ Graduates will have broad background in one or more areas of design: architectural, construction, site and structural in addition to history, theory and technology. Graduates will assume professional positions in architectural and building construction industry.

■ Graduates will be creative problem solvers in industry.

■ Graduates will be effective communicators in professional setting.

■ Graduates will adapt state of the art technologies and processes in industry.

■ Graduates will pursue continuing education and professional development opportunities.

Potential Employment/Employment Demand

Employment in the architectural field is strongly tied to the level of local construction, particularly new residential structure such as office buildings, shopping centers, schools and health care facilities. The boom in new construction in the region is expected to continue for a considerable time in the future. As the stock of buildings age, demand for remodeling and repair work should also grow. The needed renovations and rehabilitation of old buildings is expected to provide many job opportunities according to the Occupational Outlook Handbook. Also according to the Occupational Outlook Handbook, employment in this field will grow as fast as the average for all occupations during this period.

Student club - Architecture and Construction Technology (ACT) Club

Student Learning Outcomes: Architectural Engineering Technology

A. An ability to select and apply the knowledge, techniques, skills, and modern tools of the discipline to broadly-defined engineering technology activities;

B. An ability to select and apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies;

C. An ability to conduct standard tests and measurements; to conduct, analyze, and interpret experiments; and to apply experimental results to improve processes;

D. An ability to design systems, components, or processes for broadly-defined engineering technology problems appropriate to program educational objectives;

E. An ability to function effectively as a member or leader on a technical team;

F. An ability to identify, analyze, and solve broadly-defined engineering technology problems;

G. An ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature;

H. An understanding of the need for and an ability to engage in self-directed continuing professional development;

I. An understanding of and a commitment to address professional and ethical responsibilities including a respect for diversity;

J. A knowledge of the impact of engineering technology solutions in a social and global context; and

K. A commitment to quality, timeliness, and continuous improvement.

Program of Study
Required:
Liberal Arts and Sciences .... (61 credits)
EGL 101 Composition I: College Writing (GE)..............................3
EGL 102 Composition II: Writing About Literature......................3
EGL 310 Technical Writing (GE)..3
MTH 129 Pre-Calculus with Applications (GE) 4
MTH 130 Calculus with Applications (GE) 4
MTH 236 Calculus II with Applications 3
MTH Electives (above MTH 236) 6
PHY 135 College Physics I (GE) 4
PHY 136 College Physics II 4
Science/MTH Technical Elective (upper level*)...........................3
ECO 321 Engineering Economics 3
The Arts (GE)..3
Social & Behavioral Science (GE)..3
Humanities (GE) 3
American/Other World/Western Civilization History (GE)...........3
Foreign Language (GE)..3
Liberal Arts & Sciences electives..6

Please refer to the General Education and Writing Intensive requirement sections of the College Catalog and consult with your academic advisor to ensure that graduation requirements are satisfied.

*In consultation with department advisor.

Required: Architectural Engineering Technology .... (64 credits)

CON 106 Statics 3
ARC 131 Introduction to Graphics 4
CON 161 Materials & Methods of Construction I 3
CON 162 Materials & Methods of Construction II 3
CON 207 Elements of Strength of Materials............................3
ARC 255 Architectural Design I..4
ARC 257 Architectural Design II...4
ARC 263 Mechanical, Electrical, Plumbing & Energy
    Systems in Buildings......................................3
CON 302 Soils, Foundations & Earth Structures......................3
ARC 310 Construction Design...4
CON 357 Quantity Surveying and Costing 3
ARC 350W Architectural Theory & Design Factors 3
CON 361 Governmental Building &
    Environ Codes & Regulations......................3
ARC 362 History of Western Architecture 3
ARC 364 Site Design and Construction.....................................3
ARC 376 Architectural Design III 4
CON 409 Structural Design..3
ARC 476 Architectural Design IV...4
ARC 486 Architectural Design V 4
Total Credits:...125

Aviation Administration

Dr. Jeanne Radigan, Acting Chair
Aviation Deptartment
Jeanne.Radigan@farmingdale.edu
631-420-2308
School of Engineering Technology

Bachelor of Science Degree
The Aviation Administration major is a specialized aviation management program accredited by the Aviation Accreditation Board International (AABI) through February, 2023. The program prepares graduates for entry-level managerial positions in the Airport and Air Cargo segments of the air transportation industry, the Airline Industry, the FAA and the General Aviation Industry.

A grade of "C" or better is required in all AVN courses (including electives) for graduation from the Aviation Administration Program. Students who are unable to obtain a minimum grade of "C" after the second attempt in any AVN classes must obtain permission from the Chairperson of the department to remain in the program. This will apply for each course that needs to be retaken for the third time.

Aviation Administration (BS) Program Outcomes:
Graduates will possess the necessary knowledge, skills and attitudes to competently and ethically function as a manager in the aviation industry.

Specifically, the graduate of the Aviation Administration degree program will have:

- an understanding of the impact of aviation and technology in a global/societal context
- an ability to apply the techniques, skills, and modern aviation management tools to perform business related tasks
- an ability to function on a multi-disciplinary management team which includes technical and management issues
- an ability to apply knowledge of mathematics and science to ensure safe and efficient operations
- an ability to accurately analyze and interpret data, and design experiments for a variety of problems
- an understanding of professional and ethical responsibility
- an ability to communicate with agency representatives, superiors, subordinates, and peers with precision and clarity
- recognition of the need for the ability to engage in lifelong learning
- knowledge of contemporary aviation industry issues

The program prepares students to be marketable in the following areas: finance and public relations, accounting and marketing, aviation laws and interaction between the aviation industry and government and management of all aspects of airports.

Program of Study
Required:
Liberal Arts and Sciences .... (60 credits)
EGL 101 Composition I: College Writing (GE)...........................3
EGL 102 Composition II: Writing About Literature....................3
Basic Communication (GE)..3
American/Other World/Western Civilization History (GE)...........3
ECO 156 Economics (Macro) (GE) 3
ECO 157 Economics (Micro) 3
PHY 116 Meteorology 3
Natural Science (GE)..4
PSY 101 Introduction to Psychology..3
MTH 110 Statistics (GE) 3
MTH 129 Pre-Calculus with Applications (GE) 4
MTH 130 Calculus I with Applications 4
The Arts (GE)..3
Foreign Language (GE)...3
Humanities (GE) 3
Liberal Arts & Sciences Electives.. 12
*Please refer to the General Education and Writing-Intensive Requirements Sections of the College Catalog and consult with your advisor to ensure that graduation requirements are satisfied.
Required Support Courses .... (18 credits)
BUS 101 Accounting I...3
BUS 102 Accounting II..3
BUS 109 or BUS 111 3
BUS 201 Corporate Finance...3
BUS 259 Public Relations...3
BCS 300 Management Information Systems..............................3
Required Aviation .... (27 credits)
AVN 101 Aviation Industry: A History Perspective.....................3
AVN 126 Aviation Security Management I 3
AVN 201 Safety Ethics..3
AVN 300 Government in Aviation 3
AVN 330 Airline Marketing...3
AVN 400 Aviation Law 3
AVN 401 Aviation Economics 3
AVN 471 Aviation Administration Senior Seminar......................3
AVN Elective...3
Concentration: (Choose one)
Air Cargo... (15 credits)
AVN 280 Intro to Air Cargo Operations - Basic 3
AVN 281 Air Cargo Govt & Industry Regulations......................3
AVN 380 Air Cargo Sales & Marketing Techniques 3
AVN 381 Air Cargo Mgmt Techniques.......................................3
AVN 480 Air Cargo Operations - Advanced...............................3
Airport Management.. (15 credits)
AVN 270 Intro to Airports Management 3

AVN 271 Airport Capacity/Delay/Airspace 3
AVN 370 Airport Financial Mgmt 3
AVN 371 Airport Planning 3
AVN 470 Airport Operations 3
Total Credits:..**120**

Bioscience

Dr. Sarah Gross, Chair
Biology Department
Sarah.Gross@farmingdale.edu
631-420-2175
School of Arts and Sciences

Bachelor of Science Degree
The Biology Department offers a baccalaureate in Bioscience designed to produce versatile graduates prepared for a wide range of positions in the rapidly developing bioscience field or for entry into graduate or professional programs in the life and health sciences. This program combines a strong foundation in the biological sciences and supporting subjects (emphasizing both theoretical concepts and hands-on laboratory methods) with sequences of Technical Electives that enable the student to acquire advanced preparation in one or more applications of bioscience. Technical Electives are selected with advisement according to the objectives of the individual student, and can be drawn from higher level Biology courses or from other academic majors at the College, thus providing the opportunity to gain breadth and depth in a variety of disciplines.

The Biology faculty are committed to supporting student learning in the classroom and laboratory, and to fostering student scholarly activity. Recommended students in Bioscience have the opportunity to gain work experience in an elective credit-bearing internship. This can be through placement into a pharmaceutical, nutraceutical, or cosmetic manufacturing facility, forensic laboratory, genetic testing laboratory, veterinary facility, research laboratory, or other bioscience-related institution off campus, or by invitation into an on-campus credit-bearing research internship under the mentorship of a Biology faculty member.

Typical Employment Opportunities and Graduate/ Professional School Options
Examples of career paths and graduate/professional school opportunities for which this program can provide preparation are presented below, with sequences of Technical Electives that are recommended to provide the background necessary to pursue these career or postgraduate career goals:

Bioinformatics (computer-based mapping and comparison of genomic and other biologically-derived data, with applications such as predicting the function of gene products and developing pharmacogenomic treatments of disease): job titles include Scientific Curator, Gene Analyst, Protein Analyst, Structural Analyst, Molecular Modeler, Biostatistician, Pharmacogenetician. Recommended Technical Electives: Computer Concepts/Problem Solving, Foundations of Computer Programming I & II, UNIX Operating System, Database, Perl Programming

Biopharmaceutical (pharmaceutical, nutraceutical, and cosmeceutical production, ranging from fermentation and raw material extraction to processing and finishing): job titles include Compounding Supervisor, Process Development Associate, Production Planning Scheduler, Quality Assurance Auditor, Quality Control Analyst, Regulatory Affairs Specialist. Recommended Technical Electives: Management Theory & Practices, Contemporary Business Communications,

Occupational Safety, Industrial Hygiene, Biopharmaceutical Regulation, Validation & Regulatory Affairs

Bioscience Laboratory Research & Analysis (life sciences research support, biotechnology research & development, FDA regulated industry production): job titles include Bioscience Laboratory Associate, Bioscience Laboratory Technician, Food Quality Laboratory Technician, Microbiologist, Development Technician, Quality Control Receiving Inspector. Recommended Technical Electives: Organic Chemistry I & II, Biochemistry, Lab Management & Informatics, Laboratory Research/Education

Graduate/Professional School Admissions For those students specifically seeking entry into graduate programs in the life sciences or into professional programs in the health sciences, a sequence of Technical Electives can be chosen to earn the academic credentials necessary to meet admissions requirements of such programs. Recommended Technical Electives: Calculus I with Applications, College Physics I & II, Organic Chemistry I & II, Biochemistry, Lab Management & Informatics. (See Pre-Health Professions Advisement in this catalog or the Farmingdale State College website.)

Note that training and licensure in Molecular Diagnostics (Molecular Pathology) is available through the BS in Medical Technology rather than through Bioscience.

Bioscience (BS) Program Outcomes:
- Graduates will have the ability to effectively seek out and process scientific information, including primary sources and genomic databases.
- Graduates will demonstrate mastery of basic laboratory skills, expertise in the operation of modern instrumentation, adherence to laboratory safety standards, and good practices.
- Graduates will be able to process experimentally derived data and to communicate results effectively by written, graphical, digital, and verbal means.

Program of Study
Required:
Liberal Arts and Sciences ....(34 credits)
EGL 101 Composition I: College Writing (GE)............................3
EGL 102 Composition II: Writing About Literature.....................3
CHM 152 General Chemistry Principles I (GE) 4
MTH 110 Statistics (GE)...3
Humanities (GE) 3
The Arts (GE)..3
American/Other World/Western Civilization History (GE)...........3
Foreign Language (GE)...3
Social and Behavioral Science (GE)...3
General Education Electives (GE)...6
Bioscience Core ....(33 credits)
BIO 130 Biological Principles I 4
BIO 131 Biological Principles II 4
BIO 210 Introduction to Bioscience 3
BIO 212 Bioscience Laboratory Practices 2
BIO 343 Principles of Genetics 3
BIO 344L Principles of Genetics Lab. 1
BIO 345 Introduction to Bioinformatics 3
BIO 348 Cell Biology 3
BIO 349L Cell Biology Lab 1
BIO 414 Microbiology 4
BIO 441 Molecular Biology...5

Support Courses .... (15-16 credits)
BCS 102 Computer Concepts/Applications 3
CHM 153 General Chemistry Principles II 4
CHM 260 Fundamentals of Organic Chemistry **OR** ....
  CHM 270 Organic Chemistry 4-5
MTH 117 Precalculus Modeling for the life and Social Sciences
OR
  MTH 129 Precalculus with Applications or higher....................4
Technical Electives.. (29-39 credits)
Technical Electives must include at least 1 course at the
400-level earning at least 3 credits, and 3-4 courses at the
300-level or above earning a total of at least 10 credits (with
all appropriate prerequisites satisfied); the remaining
16-26 credits can be at any level.
Free Electives: 0-9
Total Credits: 120-121
Notes:

1. One Writing Intensive course in any of the above courses is
   required for graduation.

2. Technical Electives may be chosen from selected courses in
   the departments of Anthropology (ANT), Biology (BIO),
   Business (BUS), Chemistry (CHM), Computer Systems (BCS),
   Industrial Technology (IND), Mathematics (MTH), Medical
   Laboratory Technology (MLT), Physics (PHY), and Psychology
   (PSY). Courses which satisfy technical elective requirements
   are listed in the Bioscience Student Advisement Sheet.

3. To continue in the Bioscience BS degree program, a grade of
   C- or better must be maintained in every Biology and
   Chemistry course that serve as prerequisites for other
   courses in the Bioscience major. Earning a grade of less than
   C- in two required Biology and/or Chemistry courses will
   result in suspension from the Bioscience curriculum for at
   least one year. If a student fails to attend the first three
   laboratory sessions in a course, they may be disenrolled from
   the course (both lecture and lab, as applicable). Exceptions to
   these policies can only be made by the Chair of the Biology
   Department when extenuating circumstances exist.

Business Analytics

Dr. Nanda Viswanathan, Chair
Business Department
Nanda.Viswanathan@farmingdale.edu
631-420-2015
School of Business

Bachelor of Science Degree
The Bachelor of Science degree in Business Analytics is
designed to prepare students for jobs that require data analysis
skills, data visualization, and presentation skills that are
essential to decision making in organizations.

The explosive growth of technologies and applications that
collect data and generate information is changing the business
landscape. Current and new technologies and social media
provide abundant information (i.e., big data) to businesses and
organizations. Consequently, today's challenge is to extract
useful information from big data (data mining); to interpret that
information (descriptive analytics), to predict the future
(predictive analytics), and to make decisions that would help
organizations to achieve their goals (prescriptive analytics).

The Business Analytics program will teach students the
necessary skills to work with large data sets and perform data
mining tasks to enable evidence-based decision making.

Graduates from the BS in Business Analytics will have powerful
analytical skills combined with a strong business background.
Therefore, graduates from the program will succeed in the
changing business environment and will have the foundation
necessary to pursue advanced degrees in the field as well.

Typical Employment Opportunities:

Management Analyst
Market Research Analyst
Sports Statistical Analyst
Finance Analyst
Computer Systems Analyst

Business Analytics (BS) Program Outcomes:

- Graduates will demonstrate strong core discipline knowledge
  in accounting, finance, legal environment of business,
  management, marketing, and operations management.
- Graduates will evaluate ethics and social responsibility issues.
- Graduates will analyze business situations and offer reasoned,
  actionable suggestions leading to problem resolution.
- Graduates will demonstrate effective written and verbal
  communication skills supported by current technology.
- Graduates will evaluate the impact of the political, cultural and
  legal context surrounding global business operations and their
  effect on local business operations.
- Graduates will summarize and interpret each step in the
  analytics process and apply appropriate analytics software
  and tools (data collection, data mining, descriptive analytics,
  predictive analytics, and prescriptive analytics).

Liberal Arts and Sciences .... (61 credits)
EGL 101 Composition I: College Writing (GE)............................3
EGL 102 Composition II: Writing About Literature......................3
MTH 116 College Algebra (GE)..3
ECO 156 Principles of Economics (Macro) (GE) 3
ECO 157 Principles of Economics (Microeconomics) 3
Humanities elective (GE)..3
Foreign Language elective (GE) 3
Math or Natural Science elective 4
Natural Science elective (GE) 3
American/Other World/Western Civilization (GE) 3
Arts elective (GE) 3
BUS 141 Contemporary Business Communication (GE)............3
EGL 310 Technical Writing..3
Arts and Science Electives.. 15
Arts and Science Electives Upper Level.....................................6
Required: Business Analytics............................... (48 credits)
BUS 101 Accounting I 3
BUS 102 Accounting II 3
BUS 109 Management Theories and Practices..........................3
BUS 131 Marketing Principles...3
BUS 240: Business Statistics **OR** ....
  MTH 110 Statistics..3
BUS 201 Corporate Finance...3
BUS 385 Business Data Management 3
BUS 300 Operations Management 3
BUS 325 Intro. to Business Analytics 3
BUS 340 Advanced Business Statistics **OR** ....
  ECO 380 Econometrics..3
BUS 409 Strategic Management...3

BUS 440W Visual Analytics...3
BUS 445 Advanced Business Analytics 3
BUS 448 Business Analytics Project 3
Technical Elective 3
Technical Elective (300 level or higher) 3
Free Elective... (3 credits)
Free Elective (300 level or higher)......................... (9 credits)
Total Credits...121

Business Management

Dr. Nanda Viswanathan, Chair
Business Management Department
Nanda.Viswanathan@farmingdale.edu
631-420-2015
School of Business

Bachelor of Science Degree

The Bachelor of Science in Business Management is designed to prepare students for a wide choice of business and managerial careers. The program provides for a rich exposure to business issues and functions through introductory and core business courses. In addition, the program provides for a significant portion of the degree to be self-defined through elective courses. Through consultation with faculty and program advisors each student is advised with an individualized set of courses designed to best serve the career goals of that student. Students may choose to focus on specific areas of business such as Accounting, Management, Marketing, and International Business or choose from a wide variety of courses in Business Computer Systems and/or Sport Management.

Typical Employment Opportunities:

Marketing
Management and Leadership
Entrepreneurship
Accounting and Finance
Customer Relations
Financial Services
Global Business
Production, Quality Control, Inventory and Logistics

Business Management (BS) Program Outcomes:

- Graduates will have the necessary skills to understand and perform in different areas of business in the modern world economy.

- Graduates will be effective communicators and possess critical thinking skills necessary to analyze and solve problems.

- Graduates will function well in teams, develop creative problem solving skills and have the ability to use current technologies in management contexts.

- Graduates will have an understanding of social and ethical issues, data analysis skills, financial theories, and a knowledge of the global economic, political, and legal context within which businesses function.

- Graduates will have an appreciation of markets and organizational behavior, organizational systems and processes, and learn to work effectively in a diverse environment.

Program of Study
Required:

Liberal Arts and Sciences...................................... (61 credits)
EGL 101 Composition I: College Writing (GE)..........................3
EGL 102 Composition II: Writing About Literature.....................3
The Arts (GE)...3

Basic Communication (GE)..3
Humanities (GE) 3
EGL 310 Technical Writing...3
American/Other World/Western Civilization History (GE)..........3
MTH 117 Precalculus Modeling for the Life and Social Sciences OR
  MTH 129 Precalculus with Applications (GE) 4
Foreign Language (GE) 3
ECO 156 Principles of Economics (Macro) (GE) 3
ECO 157 Principles of Economics (Micro) (GE) 3
Natural Science (GE)...3
Math or Natural Science elective 3
Arts and Sciences electives
(including 6 credits @300-level or above) 21
Please refer to the General Education and Writing-Intensive Requirement Sections of the College Catalog and consult with your advisor to ensure that graduation requirements are satisfied.
Required: Business .... (39 credits)
BUS 101 Accounting I..3
BUS 102 Accounting II...3
BUS 109 Management Theories and Practices..........................3
BUS 131 Marketing Principles..3
BUS 201 Corporate Finance...3
BUS 202 Business Law 3
BUS 240 Business Statistics..3
BUS 280 International Business..3
BUS 300 Operations Management 3
BUS 404 Financial Markets & Institutions..................................3
BUS 409 Strategic Management...3
BCS 102 Computer Concepts and Applications 3
BCS 300 Management Information Systems...............................3
Electives:... (24 credits)
BUS, SMT and/or IND courses (300 level or higher) 9
AET, BCS, BUS, CON, EET,
HOR, IND, MET and/or SMT courses 12
Free Elective..3
Total Credits:..124

Computer Engineering Technology

Dr. Adam Filios, Chair
Electrical & Computer Engineering Technology Department
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631-420-2397
School of Engineering Technology

Bachelor of Science Degree

The Bachelor of Science degree program in Computer Engineering Technology is designed to address the ever increasing need for graduates possessing skills in both computer programming and computer hardware (digital electronics), and in the underlying principles of Networking.

The program establishes a sound foundation in Applied Mathematics and Physics including the necessary principles of electrical engineering technology, computer technology, elective choices in the arts, sciences and the humanities. Transfer admission is easily available to students from related degree programs.

Graduates of this program, engineering technologists, will be well prepared to fill the wide range of engineering technology positions which rely upon an understanding of hardware and software applications of digital, microprocessor, microcontroller, and computer based systems.

This program is accredited by the ETAC/ABET, www.abet.org

Computer Engineering Technology (BS)
Program Outcomes:

- Graduates will be technically competent and have the necessary skills, and experience with modern tools of their discipline to enter careers where they can apply their knowledge in the in the areas of networking and data communications, microprocessors, digital systems, and technical project management.

- Graduates will use scientific methodologies and critical thinking skills to identify, analyze, and design solutions to technical problems in the areas of networking and data communications, microprocessors, and digital systems.

- Graduates will exhibit good communication skills, recognition of the need for life-long learning, and a commitment to continuous improvement.

- Graduates will exhibit an appreciation for professional ethics and the impact of technology upon social and global issues.

Student Learning Outcomes:
Computer Engineering Technology
Upon completion of the program students will be able to:

A. Demonstrate mastery of knowledge, techniques, skills and modern tools of their discipline

B. Apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology

C. Conduct, analyze and interpret experiments and apply experimental results to improve processes

D. Apply creativity in the design of systems, components or processes appropriate to program educational objectives

E. Function effectively on teams

F. Identify, analyze and solve technical problems

G. Communicate effectively

H. Recognize of the need for, and an ability to engage in lifelong learning

I. Understand professional, ethical and social responsibilities

J. Demonstrate knowledge of contemporary professional, societal and global issues

K. Understand the importance of and exhibit commitment to quality, timeliness, and continuous improvement

Program of Study
Required:

Liberal Arts and Sciences .... (61 credits)
EGL 101 Composition I: College Writing (GE)............................3
EGL 102 Composition II: Writing About Literature.....................3
EGL 310 Technical Writing..3
MTH 129 Precalculus with Applications (GE).............................4
MTH 130 Calculus I with Applications (GE) 4
MTH 236 Calculus II with Applications (GE) 3
MTH 245 Linear Algebra..3
MTH 322 Advanced Mathematical Analysis 3
PHY 135 College Physics I (GE) 4
PHY 136 College Physics II 4
ECO 321 Engineering Economics (GE) 3
The Arts (GE)...3
Foreign Language (GE)..3
Humanities (GE) 3
American/Other World/Western Civilization History (GE)..........3
Liberal Arts and Sciences Electives..12

Technical Courses... (65 credits)
BCS 120 Foundations of Computer Programming I...................3
BCS 215 UNIX Operating Systems 3
BCS 230 Foundations of Computer Programming II..................3
BCS 370 Data Structures 3
EET 105 Introduction to Digital Electronics 2
EET 110 Computer Applications..2
EET 111 Electric Circuits I..4
EET 113 Electric Circuits II...4
EET 118 Semiconductor Devices and Circuits 4
EET 223 Digital Electronics 4
EET 224 Amplifiers...4
EET 251 Microprocessors 3
EET 316 Digital Design 4
EET 418 Microprocessor Interfacing & Control 4
EET 440 Data Communications and Networking 4
EET 441 Advanced Networking...4
EET 450 Design Concepts 2
EET 452W Design Project 2
Technical Electives* 6
Total Credits:..126
*Technical Electives must be selected from EET 311, EET 317, EET 327, EET 426, EET 428 or other courses in areas of student interest with Departmental approval.

Computer Programming and Information Systems

Dr. Jill O'Sullivan, Chair
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631-420-2190
School of Business

Bachelor of Science Degree
Demand continues to be strong for students skilled in Information Technology. Of the top 10 degrees in demand for bachelor's degree levels, four are computer related. They include the following degrees:

Computer Science
Information Science and Systems
Computer Engineering
Management Information Systems/Business Data Processing

As reported in the United States Department of Labor Occupational Outlook Handbook, employment of programmers, web developers, systems analysts and network architects is projected to grow in the range of 22 – 30 percent from 2010 to 2020, faster than the average projected growth for overall occupations.

The Computer Programming and Information Systems baccalaureate degree program requires a set of core courses that all graduates must take. The Core courses provide the diverse but fundamental foundation in technology necessary to create a technology savvy individual. In addition, the student selects one of five tracks with concentrations in Programming, Systems Development, Networking, Web Development or Database. Each track offers the student a skill set in one discipline of Information Technology and enables him/her to study a particular area in depth.

This program touches on all aspects of computer programming and information systems. It provides a practical hands-on

approach to programming with an emphasis on solving business problems.

Typical Employment Opportunities
Computer Support Specialists
Information Technology Specialists
Data Communications Analysts
Quality Assurance Technicians
Systems Analysts
Programmer/Analysts
Data Base Analysts
Web Developers
Network Administrators

Programmers convert project specifications, addressing problem statements and procedures, into detailed coding in a computer language. They will also develop and write computer programs to store and retrieve documents, data and information.

The Systems Analyst analyzes business, scientific and technical problems for application to computer-based systems.

For those interested in networking, our program offers courses in conjunction with the Cisco Networking Academy. Students taking and passing these courses receive training certifications for each course directly from Cisco. These courses prepare each student for taking the Cisco Certified Network Associate (CCNA) exam.

Web Development professionals are in demand due to the growth of the Internet and the expansion of the World Wide Web (the graphical portion of the Internet). This rapid growth has generated a variety of occupations related to the design, development, and maintenance of Web sites and their servers.

Database professionals will be prepared to design and administer the advanced databases that industry relies on.

Computer Programming & Information Systems (BS) Program Outcomes:
- Graduates will be trained as technical problem solvers and will receive the knowledge and skills necessary to function and grow in this high-demand workforce.
- Graduates will have had experiential learning opportunities such as internships and/or capstone projects.
- Graduates will have an understanding of social and ethical issues as it relates to information technology.
- Graduates will be effective communicators and work successfully in teams.

Program of Study
Required:
Liberal Arts and Sciences ....(61-63 credits)
EGL 101 Composition I: College Writing (GE)...........................3
EGL 102 Composition II: Writing About Literature.....................3
EGL 310 Technical Writing or
PCM 324 Report Writing and Technical Communications 3
Communications (SPE130, SPE202, SPE330 or SPE331) (GE) ..3
The Arts (GE)...3
Foreign Language (GE)...3
Humanities (GE) 3
ECO 156 **OR** ECO 157 (GE) 3
PSY 101 **OR** SOC 122 3
American/Other World/Western Civilization History (GE)...........3
Natural Science (GE)..6/8
MTH 130 Calculus I w Applications (GE) 4
MTH 390 Prob Methods in Operations Research 3

300 level Arts & Science Electives...3
Arts and Science Electives*.. 15
*Note: 9 credits from this group must be 300-level or higher
Please refer to the General Education and Writing-Intensive Requirement Sections of the College Catalog and consult with your advisor to ensure that graduation requirements are satisfied.
Required: Business & Computer Systems (48 credits)
BCS 120 Foundations of Computer Programming I...................3
BCS 160 Computers, Society, and Technology 3
BCS 230 Foundations of Computer Programming II.................3
BCS 215 UNIX Operating System 3
BCS 260 Introduction to Database Systems 3
BCS 262 Data Communications 3
BCS 300 Management Information Systems...............................3
BCS 301 Systems Analysis and Design......................................3
BCS 345 Java Programming 3
BCS 430W Senior Project 3
*BCS Elective...3
*BCS/BUS Elective 3
BCS 3XX 300-level elective or above 3
BCS/BUS 3XX 300-level elective or above.................................3
BUS 101 Accounting I..3
BUS 109 Management Theories and Practices...........................3
*Note: BCS102 cannot be used to meet these electives
Programming Track (12 Credits)
Students must complete BCS120 and BCS230 for this track
BCS 370 Data Structures 3
BCS 316 Perl Programming..3
BCS 360 Programming in SQL...3
BCS 410 Computer Architecture or BCS 415 – Operating Systems Internals and Design..3
Systems Track (12 Credits)
Students must complete BCS 301 as a prerequisite(s) for this track
BCS 302 Systems Analysis and Design II...................................3
BCS 378 Information Security 3
BUS 3XX 300-level elective or above 3
BCS 405 IS Development Project Management.........................3
Networking Track (12 Credits)
BCS 208 Introduction to Networks 3
BCS 209 Routing and Switching Essentials 3
Choose two of the following four courses:
BCS 311 Local Area Networking 3
BCS 320 Scaling Networks 3
BCS 321 Connecting Networks 3
BCS 378 Information Security..3
Web Track (12 Credits)
Students must complete BCS 130 as a prerequisite(s) for this track
BCS 240 Website Development II 3
BCS 235 JavaScript and jQuery 3
BCS 303 XML 3
BCS 350 Web Database Development 3
Database Track (12 Credits)
BCS 360 Programming in SQL...3
BCS 380 Advanced Database Programming...............................3
BCS 390 Database Administration and Security.........................3
BCS 425 Business Intelligence & Data Warehousing................3
Total Credits:..121-123

Notes:

1. No student will be permitted to remain in the Computer Programming and Information Systems Program if he/she has received three "F's" in any BCS course or courses.

Candidates for graduation will be required to have a minimum average GPA of 2.0 in BCS courses.

2. For all BCS courses that require a BCS prerequisite, the BCS prerequisite must be completed with a grade of C or better.

3. Students must complete at least 18 credits with BCS designation at Farmingdale.

4. Students with life experience may challenge up to 3 courses (9 credits via credit-by-evaluation).

Computer Security Technology

Dr. M. Nazrul Islam, Chair
Security Systems and Law Enforcement Technology
Nazrul.Islam@farmingdale.edu
631-794-6216
School of Engineering Technology

Bachelor of Science Degree

The Bachelor of Science degree in Computer Security Technology prepares students to combat security issues and challenges in the digital environment, including computer systems, computer networks and cyberspace. Graduates will be able to face the security threats and protect valuable information and/or physical resources from unauthorized access and malicious activities. In addition to preparing students for rewarding careers in the security industry, the program prepares students for lifelong learning and advanced studies in related disciplines.

Typical Employment Opportunities

Corporate Security
Federal, State and Local Security Agencies
Software Industries
Computer and Information Systems Manager

Computer Security Technology (BS) Program Outcomes:

- Graduates will demonstrate the knowledge-based skills to analyze and excel in computer and cyber security technologies.
- Graduates will demonstrate an appreciation of professional requirements, ethics and leadership skills.
- Graduates will utilize effective oral and written communication skills.
- Graduates will apply critical thinking skills to analyze current issues and develop innovative solution techniques.

Liberal Arts and Sciences .... (62 credits)
EGL 101 Composition I: College Writing (GE)............................3
EGL 102 Composition II: Writing About Literature.....................3
MTH 129 Precalculus with Applications....................................4
MTH 130 Calculus I with Applications 4
PHY 135 College Physics I 4
PHY 136 College Physics II 4
BIO 120 General Biology 4
Humanities (GE) 3
Arts (GE)...3
American/Other World/Western Civilization (GE) 3
Foreign Language (GE)...3
Liberal Arts & Sciences Electives..12
ECO 321 Engineering Economics 3
EGL 310 Technical Writing...3
300-400 Level Liberal Arts/Sciences Electives 6

Required Courses: .... (59 credits)
BCS 120 Foundations of Computer Programming.....................3
EET 104 DC/AV Circuits...4
EET 105 Introduction to Digital Electronics 2
CPS 201 Digital Systems and Security 3
CPS 203 Data Security and Privacy..3
CPS 205 Digital Signal and Image Processing...........................3
BCS 2015 UNIX Operating Systems 3
CPS 301 Biometric Recognition..3
CPS 303 Operating Systems and Security.................................3
CPS 305 Foundations of Cryptography 3
EET 440 Networking and Data Communications 4
EET 441 Advanced Networking...4
CPS 401 Applied Cryptography 3
CPS 460/TEL460 Network Security...3
CPS 405W Senior Project 3
100-200 Level Technical Elective *...3
300-400 Level Technical Elective * (CPS 461, 462 or 463).........3
300-400 Level Technical Electives *
  (BCS, CPS, CRJ, EET, SET) 6
  Total Credits..121

Construction Management Engineering Technology

Prof. Orla Smyth LoPiccolo, Chair
Architecture & Construction Management Department
Orla.LoPiccolo@farmingdale.edu
631-420-2024
School of Engineering Technology

Bachelor of Science Degree

The Construction Engineering Management Technology program has been designed to respond to the need for skilled professionals possessing the level of sophistication necessary to accommodate state-of-the-art technology which has impacted the construction industry. It will incorporate extensive use of the computer in the technical specialty together with upper level mathematics, economics, and communications.

The Construction Engineering Management Technology program encompasses study in traditional engineering technology offerings (Statics, Strength of Materials, Structural design Materials testing, etc.) The program is complemented with offerings in project control, scheduling, cost control quality control, construction productivity, and economics. It prepares students for employment in an emerging occupation within the construction industry. Graduates will possess expertise in construction and specialized administrative skills commensurate with the requirements dictated by the industry to coordinate and execute the construction of the design created by the engineer and the architect.

This program is accredited by the Engineering Technology Accreditation Commission of ABET, www.abet.org.

Construction Management Engineering Technology (BS) Program Outcomes:

- Graduates will have broad background in one or more areas of infrastructure and building construction, estimating, cost control, project management and technology. Graduates will assume leadership positions in the construction industry.
- Graduates will be creative problem solvers in industry.
- Graduates will be effective communicators in professional setting.
- Graduates will adapt state of the art technologies and processes in industry.

- Graduates will pursue continuing education and professional development opportunities.

Potential Employment Opportunities

Project Manager
Assistant Project Manager
Construction Manager
Project Super

Student club – Architecture and Construction Technology (ACT) Club

Student Learning Outcomes: Construction Management Engineering Technology

A. An ability to select and apply the knowledge, techniques, skills, and modern tools of the discipline to broadly-defined engineering technology activities;

B. An ability to select and apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies;

C. An ability to conduct standard tests and measurements; to conduct, analyze, and interpret experiments; and to apply experimental results to improve processes;

D. An ability to design systems, components, or processes for broadly-defined engineering technology problems appropriate to program educational objectives;

E. An ability to function effectively as a member or leader on a technical team;

F. An ability to identify, analyze, and solve broadly-defined engineering technology problems;

G. An ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature;

H. An understanding of the need for and an ability to engage in self-directed continuing professional development;

I. An understanding of and a commitment to address professional and ethical responsibilities including a respect for diversity;

J. A knowledge of the impact of engineering technology solutions in a social and global context; and

K. A commitment to quality, timeliness, and continuous improvement.

Program of Study
Required:
Liberal Arts and Sciences .... (61 credits)
EGL 101 Composition I: College Writing (GE)............................3
EGL 102 Composition II: Writing About Literature.....................3
EGL 310 Technical Writing (GE)..3
MTH 129 Pre-Calculus with Applications (GE) 4
MTH 130 Calculus with Applications (GE) 4
MTH 236 Calculus II with Applications 3
MTH 390 Methods in Operations Research 3
PHY 135 Physics I (GE)...4
PHY 136 Physics II...4
Science/MTH Technical Elective*...3
ECO 156 Principles of Economics (Macro) (GE) 3
ECO 157 Principles of Economics (Micro) 3
ECO 321 Engineering Economics 3
The Arts (GE)...3
Humanities (GE) 3

American/Other World/Western Civilization History (GE)...........3
Foreign Language (GE)...3
Mathematics Elective...3
Liberal Arts & Sciences Electives...3
Please refer to the General Education and Writing Intensive Requirement Sections of the College Catalog and consult with your advisor to ensure that graduation requirements are satisfied. *In consultation with department advisor.

Required: Construction Management................. (65 credits)
CON 103 Surveying 3
CON 106 Statics 3
ARC 131 Introduction to Graphics 4
BUS 109 Management Theory and Practices 3
CON 161 Materials & Methods of Construction I 3
CON 162 Materials & Methods of Construction II 3
CON 207 Elements of Strength of Materials...............................3
ARC 263 Mechanical, Electrical, Plumbing &
          Energy Systems in Buildings 3
CON 302 Soils, Foundations & Earth Structures........................3
CON 303 Hydraulics 3
ARC 310 Construction Design..4
CON 350 Introduction to Construction Engineering...................3
CON 355 Construction Management Financial and
Accounting Principles...3
CON 357 Quantity Surveying and Costing 3
ARC 364 Site Design and Construction.......................................3
CON 401W Construction Project Mgmt & Scheduling 3
CON 402 Civil Engineering Materials...3
CON 406 Advanced Project Planning and Scheduling 3
CON 409 Structural Design..3
Technical Elective* 3
CON 496 Capstone Project..3
Note:
*CON 361, IND 308 or CON 299 preferred. See advisor for additional technical electives.
Total Credits:...126

Criminal Justice: Law Enforcement Technology

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Security Systems & Law Enforcement Technology Department
Nazrul.Islam@farmingdale.edu
631-420-2538
School of Engineering Technology

Bachelor of Science

The Bachelor of Science program in Criminal Justice: Law Enforcement Technology is a technical program that prepares students for careers in law enforcement on the local, state, and federal levels. Other career opportunities exist with private police and military police forces.

The program blends courseware in computers, forensics, crime prevention, and technology to provide students with the necessary skills to control crime as well as to conduct investigations of crimes committed on a computer or at a crime scene. Students are provided with a legal foundation in the study of digital evidence, which is an essential element of cyber investigations.

The program will provide graduates with technical skills to pursue careers in the protective services as well as for

in-service personnel who may seek career advancement. Students are also provided with a broad based educational experience that draws from the deep reservoirs of knowledge of the arts and sciences. Graduates who wish to continue their education will find that the program will adequately prepare them for graduate studies in criminal justice and related fields.

Students majoring in Criminal Justice: Law Enforcement Technology will take a total of 122 credits of which 61 credits are in criminal justice and 61 credits are in liberal arts and sciences, with 33 credits as free electives. In the first two years of the program, students will have completed basic courses in criminal justice with acquired competencies in criminal and procedural law, criminal investigation and criminalistics. In the third year of study, students will take the more advanced technology courses. The advanced technology courses will provide students with skills in computer forensics, forensic imaging and video analysis, criminal justice database management, crime analysis and mapping, and crime prevention technology. The program concludes with a senior project capstone course which may involve the analysis of a discipline-related technical problem or the development of a research project.

Criminal Justice: Law Enforcement Technology (BS) Program Outcomes:
- Graduates will have knowledge of criminal investigations and criminalistics and be able to analyze the elements that constitute crimes and effectively apply scientific methods towards crime scene investigations.
- Graduates will have knowledge of the technologies used in a variety of criminal justice and law enforcement applications ranging from crime scene investigations to digital forensic investigations.
- Graduates will gain competencies in evidence collection, documentation, analysis and maintenance of chain of custody as well as the laws and guidelines associated with these matters.
- Graduates will take specialized courses to gain knowledge in areas such as geographical information systems, crime analysis and prevention, security, and law enforcement technologies.

Program of Study
Required:
Liberal Arts and Sciences .... (61 credits)
EGL 101 Composition I: College Writing (GE)............................3
EGL 102 Composition II: Writing About Literature.....................3
PSY 101 Intro to Psychology (GE)..3
PSY 315 Abnormal Psychology...3
SOC 122 Introduction to Sociology (GE) 3
Foreign Language (GE)...3
The Arts (GE)..3
MTH 110 Statistics (GE)..3
Natural Science with a Lab (GE) 4
American/Other World/Western Civilization History (GE)...........3
Humanities (GE) 3
Liberal Arts/Science Elective (GE)..3
Free Liberal Arts/Sciences Elective 24

Note: The Liberal Arts and Science electives must include at least 9 credits selected from the following courses: PSY 300, PSY 304, PSY 331, SOC 223, SOC 224, SOC 225, SOC 229, SOC 231.

Required: Courses in the Major .... (61 credits)
CRJ 100 Introduction to Criminal Justice 3

CRJ 101 Law Enforcement Community Relations......................3
CRJ 115 Computer Forensics...3
CRJ 200 Criminal Investigation 3
CRJ 201 Criminalistics..3
CRJ 203 Criminology..3
CRJ 204 Criminal Law 3
CRJ 205 Criminal Procedure Law 3
CRJ 217 Computer Forensics II 3
CRJ 218 Computer Forensics III 3
CRJ 307 Criminal Justice Database Operation 4
CRJ 308 Forensic Technology 4
CRJ 406 Crime Analysis and Mapping 4
CRJ 407 Crime Prevention Systems 4
CRJ 410W Senior Project 3
Free Electives... 12
Total Credits:..122

Dental Hygiene -Entry Level
Dr. Maureen Tsokris, Chair
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631-420-2060
Theresa Patnode Santmann School of Health Sciences

Bachelor of Science Entry-Level Degree

The Bachelor of Science in Dental Hygiene program prepares students for licensure and entry into the profession of dental hygiene, as well as certification in the administration of local infiltration anesthesia/nitrous oxide analgesia. This optional BS program will offer students a broad foundation of knowledge that will prepare them for the emerging roles within oral healthcare. The optional BS program in Dental Hygiene is accredited by the Commission on Dental Accreditation and has been granted the accreditation status of "Approval without Reporting Requirements." Since the optional BS program is a new program at Farmingdale State College, the Commission on Dental Accreditation will review this program at the next accreditation site visit scheduled for 2022. The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at (312) 440-4653 or at 211 East Chicago Avenue, Chicago, IL 60611-2678. The Commission's web address is: www.ada.org/coda. Graduates receive a Bachelor of Science degree and are eligible to sit for the National Dental Hygiene Board Examination, as well as State and Regional Practical Board Examinations for dental hygienists.

As the dental hygiene profession continues to expand, career opportunities beyond clinical practice will require a higher level credential such as a bachelor's degree. Emphasis is placed on broadening the career paths for practicing hygienists. Foundation courses are in the areas of teaching, research and public health with an emphasis on service learning and inter-professional collaboration. Although the clinical role is most closely connected with dental hygiene, it is only one of six roles formally designated for the hygienist, which include educator, researcher, administrator, change agent, and consumer advocate. The Bachelor of Science Degree in Dental Hygiene is designed to provide comprehensive upper-level studies that will prepare dental hygienists to adapt to the emerging new roles in oral healthcare. All aspects of dental hygiene are incorporated into the theoretical framework and practical experiences of the curriculum. The program includes general education as well as

specialized coursework in the biomedical and oral sciences.

Students perform a variety of comprehensive services at the College's technologically advanced Dental Hygiene Care Center. Among these services are thorough assessment of oral conditions, non-surgical periodontal therapy (scaling and root planing of teeth), exposing, processing and interpreting oral x-rays, patient education and nutritional counseling. In addition students in the Bachelor curriculum will participate in a number of off campus clinical rotations in hospital settings.

The Dental Hygiene Care Center is in compliance with all Occupational and Safety Health Administration (OSHA)/Infection Control regulations regarding infectious diseases and bloodborne pathogens.

As a condition for acceptance into the dental hygiene program all applicants are required to submit evidence of satisfactory health. Evidence of immunization and adequate titers for measles, mumps, rubella and varicella must be provided. In addition, matriculated students will be required to take a yearly Mantoux test for tuberculosis. Students are strongly urged to submit evidence of immunization and titer for Hepatitis B. It is recommended that students who test negatively for Hepatitis B receive the appropriate vaccine. Students who decline this recommendation will be required to sign a waiver of responsibility. All Dental Hygiene students are required to participate in the group liability policy, provided by the college, which will afford malpractice coverage during the time enrolled in the dental hygiene curriculum.

In order for Health Sciences students to be sent to clinical sites for educational training, agencies must be provided with information regarding student health status, including immunizations. Without documented immunity/vaccination, including MMR, varicella, Hepatitis B acknowledgement, Tdap, influenza and PPD, students will be unable to attend clinical rotations and receive the educational training necessary to meet program, licensure, and/or certification requirements. All students are required to meet New York State Hospital Code requirements and agency requirements prior to admission to clinical sites.

New York State Dental Hygiene licensure requires the applicant be of good moral character. An applicant for licensure who has been convicted of a crime, or has committed an act which raises a reasonable question as to their moral character, will be subject to review.

Typical Employment Opportunities

Private Dental Offices
Geriatric Facilities
Public Health Agencies
Research Laboratories
School Health Services
Pharmaceutical Corporations
Private Care Center
Dental Supply Companies
Hospitals
Armed Forces
Insurance Companies
Manged Care Facilities

Dental Hygiene (BS Entry Level) Program Outcomes:

- Graduates will have the knowledge and skills necessary to provide comprehensive dental hygiene care to the general population including the adolescent, geriatric and special needs patient.

- Graduates will develop an expertise in the area of health promotion and disease prevention through assessment, planning, implementation and evaluation of community based oral health programs and effective interaction with diverse population groups.

- Graduates will understand the role of leadership, management, and technology as it applies to dental hygiene practice.

- Graduates will develop the skills necessary to analyze and apply scientific literature in the dental hygiene process of care.

- Graduates will demonstrate an understanding of the learning process, various teaching methodologies and evaluation techniques as they apply to the dental hygiene educator.

- Graduates will utilize professional judgment and critical thinking skills for recognition and management of ethical, legal and regulatory issues.

- Graduates will develop a sense of professionalism as health care providers including self-assessment and will seek educational advancement for continued growth and development following commencement.

Special Opportunities

As a student in the Dental Hygiene Bachelor of Science Degree Program you are eligible to participate in the Student American Dental Hygienists' Association (SADHA) which promotes student leadership through community outreach, lunch and learn programs and various campus activities

Dental Hygiene Optional BS Degree Admission Requirements:

In addition to the college admission requirement's students seeking admission to the Dental Hygiene Bachelor Program are required to have completed:

- High School Diploma or GED
- Integrated Algebra and Geometry
- Laboratory Biology
- Laboratory Chemistry

Applicants are required to take the Health Occupations Aptitude Exam

Applicants are rank ordered on an academic basis. A "B" average or better is recommended.

The TOEFL (Test of English as a Foreign Language) Examination with a minimum score of 550 (paper) or 213(computer) or 79 (internet) will be required as a condition for entrance into the Dental Hygiene program for:

a) applicants who are foreign born high school seniors and have had ESL (English as a Second Language) courses in high school or

b) applicants with secondary credentials from a foreign country, whose language of instruction was not English, regardless of any coursework completed in the United States.

All applications submitted to the program by January 15th receive equal consideration. Meeting minimum criteria for admission does not guarantee acceptance to the program. The College reserves the right to make the final decisions based upon the applicant pool each year.

Program of Study
Required:
Liberal Arts and Sciences .... (60 credits)
BIO 166 Anatomy & Physiology (GE)..4
CHM 140 Intro to General, Organic & Biochemistry (GE)...........4
BIO 220 Medical Microbiology...4
EGL 101 Composition I: College Writing (GE)............................3
EGL 102 Composition II: Writing about Literature 3
MTH 110 Statistics (GE)...3
PSY 101 Introduction to Psychology (GE)..................................3
SOC 228 Society & Health (GE) 3
SPE 202 Interpersonal Communications (GE) 3
SPE 330 Professional and Technical Speech.............................3
American/Other World/Western
Civilization History Elective (GE)..3
The Arts (GE)..3
Foreign Language Level I 3
Foreign Language Level II 3
Humanities (GE) 3
Upper Level Liberal Arts & Science
Elective (300 level & above)...12
Please refer to the General Education and Writing-Intensive
Requirement sections of the College Catalog and consult with
your advisor to ensure that graduation requirements are
satisfied.
Required: Dental Hygiene .... (64 credits)
DEN 102 Dental Materials & Expanded Functions 3
DEN 105 Dental & Oral Anatomy..3
DEN 106 Oral Radiology I 3
DEN 108 Oral Histology & Embryology......................................2
DEN 110 Preventive Oral Concepts I 2
DEN 115 Clinical Dental Hygiene I..3
DEN 126 Periodontology 2
DEN 203 Principles of Nutrition for Oral Health Professionals...2
DEN 205 Oral Pathology..3
DEN 207 Oral Radiology II...1
DEN 212 Pharmacology...2
DEN 220 Preventive Oral Health Concepts II.............................2
DEN 225 Clinical Dental Hygiene II 3
DEN 302 Principles of Dental Anesthesia..................................2
DEN 310 Teaching Strategies for Health Care Educators 3
DEN 322 Dental Public Health Planning 3
DEN 330 Essentials of Clinical Practice Theory 2
DEN 335 Essentials of Clinical Practice I...................................2
DEN 340 Dental Hygiene Law & Practice Management.............2
DEN 345 Essentials of Clinical Practice II..................................3
DEN 401 Health Science Research Principles & Methods........3
DEN 402 Gerontology..3
DEN 430 Senior Seminar I...1
DEN 435 Advanced Dental Hygiene Practice I..........................4
DEN 440 Senior Seminar II...1
DEN 445 Advanced Dental Hygiene Practice II.........................4
Total Credits:..124
Notes:
Once a student has been admitted to DEN 105, courses must
be completed in semester sequence, without interruption. Any
student who misses a semester will not be permitted to
continue in the program until approval has been obtained (if
granted) from the Admissions and Academic Standards
Committee of the Dental Hygiene Department. Students who
have been given permission to continue in the program will be
required to take the skills refresher course DEN 015. Procedural

information may be obtained from the Department Chair of
Dental Hygiene in Gleeson Hall.

1. The nature of this program will expose students to bodily
   fluids and blood borne pathogens. The Dental Hygiene
   Department adheres strictly to the Occupational and Safety
   Health Administration (OSHA) Guidelines for infectious
   disease control.
2. Students must be certified in Basic Life Support for Health
   Care Providers prior to entering the clinical sequence.
3. Students are required to provide their own transportation to
   off campus field experiences. For all field experiences,
   student dress must conform with field agency protocol.
4. Students are required to purchase their own instruments and
   specific clinically related supplies.
5. A grade of "C" (2.0) or better must be maintained in all
   courses with a DEN, BIO or CHM prefix. A failure in a
   clinically related area constitutes withdrawal from the Dental
   Hygiene curriculum.
6. Students are also required to provide their own patients
   (approximately 8) for clinic during the second semester of the
   program.

Dental Hygiene - Completion

Dr. Maureen Tsokris, Chair
Dental Hygiene Department
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631-420-2060
Theresa Patnode Santmann School of Health Sciences

Bachelor of Science Degree
The Bachelor of Science degree program in Dental Hygiene is
designed to meet the transfer and continuing education needs
of Associate in Applied Science Degree graduates in dental
hygiene. This program will offer students a foundation of
knowledge that will prepare them for the emerging roles within
the Dental Hygiene profession. Emphasis is placed on
broadening the career paths for practicing hygienists.
Foundation courses are in the areas of teaching, research and
public health. As part of the capstone practicum course,
students are given the opportunity to further explore a specific
area of interest through an internship. Based on personal
interest, students may partner with corporations, hospitals,
public health programs/facilities or educational institutions.

As the dental hygiene profession continues to expand many
career opportunities require advanced degrees. This degree
completion program in dental hygiene is tailored to provide
comprehensive upper-level studies that will prepare dental
hygienists to adapt to the emerging new roles in oral healthcare.

Please refer to the Safety and Technical Standards in the front
section of the College Catalog.

Typical Employment Opportunities
Clinical Research
Dental Hygiene Education
Dental Insurance Companies
Geriatric Facilities, Case Management
Patient Advocacy
Pharmaceutical Corporations, Sales and Management
Pharmaceutical Corporations, Research and Development
Public Health Agencies

Dental Hygiene (BS Degree Completion)
Program Outcomes:
- The dental hygiene graduate will be able to utilize professional judgment and critical thinking skills to determine the treatment needs of geriatric and special needs patients.
- The dental hygiene graduate will appreciate the role of leadership, management, and technology as it applies to dental hygiene practice.
- The dental hygiene graduate will develop the skills necessary to analyze and apply scientific literature in the dental hygiene process of care.
- The dental hygiene graduate will be able to develop a comprehensive community based oral health care program.
- The dental hygiene graduate will demonstrate an understanding of the learning process, various teaching methodologies and evaluation techniques as they apply to the dental hygiene educator.
- The dental hygiene graduate will be empowered to seek employment opportunities other than traditional clinical practice.
- The dental hygiene graduate will seek educational advancement for continued growth and development following commencement.

Special Opportunities
As a student in the Dental Hygiene Bachelor of Science Degree Completion Program in dental hygiene, you are eligible to participate in the Student American Dental Hygienists' Association (SADHA) which promotes student leadership through community outreach, lunch and learn programs and various campus activities.

To facilitate transfer into graduate level programs, the Dental Hygiene Department has established seamless transfer agreements with Stony Brook University, School of Health Technology and Management for a Master of Science in Health Care Policy and Management and University of Bridgeport, Fones School of Dental Hygiene for a Master of Science in Dental Hygiene.

Program of Study
Required:
Liberal Arts and Sciences .... (39 credits)
The Arts (GE)...3
MTH 110 Statistics (GE)...3
American/Other World/Western Civilization History (GE)...........3
BIO 240 Bioethics 3
Foreign Language – Level II (GE) 3
Humanities (GE)*...3
Liberal Arts & Science Electives* 18
* 200 level or above recommended
Please refer to the General Education and Writing-Intensive Requirement sections of the College Catalog and consult with your advisor to ensure that graduation requirements are satisfied. In addition, compare the Liberal Arts and Sciences courses you have successfully completed in your associate degree program to confirm general education requirements that you have met.
College and Program Requirement
Grade of C or higher in EGL 102 is a graduation requirement. EGL 102 is to be completed in the first semester as a program requirement.
EGL 102 Composition Literature 3

Required: Dental Hygiene .... (25 credits)
DEN 303 Practice Management for Quality Assurance 3
DEN 309 Oral Epidemiology in Public Health 3
DEN 310 Teaching Strategies for Health Care Educators 3
DEN 401W Health Science Research: Principles and Methods .3
DEN 402 Gerontology..3
DEN 406W Proposals and Grant Management
  for Health Programs 3
DEN 407 Dental Hygiene Practicum Seminar............................1
DEN 409 Dental Hygiene Practicum 3
Free Elective...3
Total Credits:...64
Note: Students must take at least one 3 credit hour course designated as Writing Intensive to graduate.

Electrical Engineering Technology

Dr. Adam Filios, Chair
Electrical & Computer Engineering Technology Department
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631-420-2397
School of Engineering Technology

Bachelor of Science Degree
The Bachelor of Science degree program in Electrical Engineering Technology is designed to meet the transfer and continuing education needs of associate degree graduates in EET or other related disciplines as well as to address the industry needs for graduates with sound and current skills in Electrical Engineering Technology.

The program has a sound foundation of Mathematics and Physics, provides a variety of electives in the Arts, Sciences and the Humanities and is focused on applying current engineering technology methods to the solution of technical problems. Transfer admission is open to students from closely allied degree programs and with proper academic advisement the students are able to complete the degree requirement in an optimally timely fashion.

Program graduates, known as engineering technologists are well prepared for a wide range of industry positions in the areas of electronic product development, automated testing, quality control, technical sales, technical writing, management, etc.

This program is accredited by the ETAC/ABET, www.abet.org

Electrical Engineering Technology (BS) Program Outcomes:
- Graduates will be technically competent and have the necessary skills, and experience with modern tools of their discipline to enter careers where they can apply their knowledge in the areas of electronics, communications and systems and technical project management.
- Graduates will use scientific methodologies and critical thinking skills to indentify, analyze, and design solutions to technical problems in the areas of electronics, communications, and systems.
- Graduates will exhibit good communication skills, recognition of the need for life-long learning, and a commitment to continuous improvement.
- Graduates will exhibit an appreciation for professional ethics and the impact of technology upon social and global issues.

Student Learning Outcomes:

Upon completion of the program students will be able to:

A. Demonstrate mastery of knowledge, techniques, skills and modern tools of their discipline

B. Apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology

C. Conduct, analyze and interpret experiments and apply experimental results to improve processes

D. Apply creativity in the design of systems, components or processes appropriate to program educational objectives

E. Function effectively on teams

F. Identify, analyze and solve technical problems

G. Communicate effectively

H. Recognize of the need for, and an ability to engage in lifelong learning

I. Understand professional, ethical and social responsibilities

J. Demonstrate knowledge of contemporary professional, societal and global issues

K. Understand the importance of and exhibit commitment to quality, timeliness, and continuous improvement

Program of Study
Required:
Liberal Arts and Sciences .... (61 credits)

EGL 101 Composition I: College Writing (GE)............................3
EGL 102 Composition II: Writing About Literature.....................3
EGL 310 Technical Writing...3
MTH 129 Precalculus with Applications (GE).............................4
MTH 130 Calculus I with Applications (GE) 4
MTH 236 Calculus II with Applications (GE) 3
MTH 245 Linear Algebra...3
MTH 322 Advanced Mathematical Analysis 3
PHY 135 College Physics I (GE) 4
PHY 136 College Physics II 4
PHY 323 Electromagnetic Theory 3
ECO 321 Engineering Economics (GE) 3
The Arts (GE)...3
Foreign Language (GE) 3
Humanities (GE) 3
American/Other World/Western Civilization History (GE)...........3
Liberal Arts and Sciences Electives.....................................9
Electrical Engineering Technology .... (65 credits)
EET 105 Introduction to Digital Electronics 2
EET 110 Computer Applications..2
EET 111 Electric Circuits I...4
EET 113 Electric Circuits II..4
EET 118 Semiconductor Devices and Circuits 4
EET 223 Digital Electronics 4
EET 224 Amplifiers..4
EET 225 Communications Electronics.....................................4
EET 251 Microprocessors 3
EET 311 Network Analysis...4
EET 316 Digital Design 4
EET 317 Industrial Electronics...4
EET 327 Signal Processing 4
EET 418 Microprocessor Interfacing & Control 4
EET 420 Linear Systems & Controls 4
EET 450 Design Concepts 2
EET 452W Design Project 2
Technical Electives* 6
Total Credits:...126

*Technical Electives must be selected from EET 414, EET 426, EET 428, EET 440 or other courses in areas of student interest with Departmental approval.

Geographic Information Systems

Dr. Emily A. Fogarty, Program Director
History, Politics, and Geography Department
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631-420-2634
School of Arts & Sciences

Bachelor of Science Degree

The Bachelor of Science degree in Geographic Information Systems (GIS) allows students to investigate and analyze the geographic and spatial structures and systems that underlie and connect populations, ecosystems, society, economic and financial organizations, political and governmental institutions, and scientific and technological advances in our world. The GIS program provides students a set of skills to manipulate, analyze, assess, and visualize data by way of digital maps and/or map imagery to solve problems related to urban and regional design, marketing and industrial location, transportation, agriculture, forestry, environmental systems, engineering, epidemiology, emergency services, crime analysis and utilities.

Completion of the degree would count toward the educational requirement for GISP (GIS Professional) Certification.

Typical Employment Opportunities

GIS Analyst
Geospatial Intelligence Analyst
Geospatial Application Developer
Urban and Regional Design
Agriculture Technology
Natural Resources Analyst
GIS Network Engineer
Epidemiology
Emergency Services
Crime Analysis
Utilities
Local and National Government
GIS Energy Anlayst
GIS Transportation and Logistics Analyst

Geographic Information Systems (BS) Program Outcomes:

- Graduates will utilize the scientific method and various informational and analytical tools for solving problems related to human and physical geography.

- Graduates will apply understanding of the importance of space and place in key issues facing contemporary society, combined with the ability use data to solve pressing problems in the environmental sciences, salesforce management, public health, public policy, etc.

- Graduates will debate, quantify, and qualify the interrelationships between human, physical, and biotic systems on the Earth's surface.

- Graduates will integrate spatial analysis into interdisciplinary research problems.

- Graduates will compose essays that: 1) cogently convey technical information retrieved through independent research; 2) rely on print and/or digital sources of a scholarly nature; and 3) are generally free of grammatical, spelling, punctuation and other errors.

Liberal Arts and Sciences .... (51 credits)
EGL 101 Composition I: College Writing (GE)...........................3
EGL 102 Composition II: Writing About Literature.....................3
MTH 110 Statistics (GE)..3
American History (GE) 3
Western Civilization History (GE)..3
Humanities (GE) 3
Arts (GE)...3
Foreign Language (GE) 3
Natural Science (GE)...3
Mathematics (GE) 3
Liberal Arts & Sciences Technical Electives 6
Liberal Arts & Sciences Electives.....................................6
300-400 Level Liberal & Science Electives...............................9
Free Electives.. (6 credits)
Required: Lower Division .... (16 credits)
GEO 110 Maps and Map Analysis (GE).....................................3
GIS 231 Geospatial Research Methods....................................3
GEO 211 The World and Its Peoples (GE).................................3
GIS 222 Geovisualization I 4
GEO 201 Physical Geography **OR** ....
  GEO 222 Human Geography 3
Required: Upper Division .... (48 credits)
GIS 321 Geovisualization II..3
GIS 331 Spatial Analysis I 3
GIS 341 Geoprocessing I 3
GIS 342 Geodata Management...3
GIS 491W Senior Seminar **OR**...
  GIS 492W Internship..3
Technical Electives 300-400 Level......................................21
Free Electives 300-400 Level 12
Total Credits...121

Global Business Management

Dr. Nanda Viswanathan, Chair
Business Management Department
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631-420-2015
School of Business

Bachelor of Science Degree
The Bachelor of Science in Global Business Management is designed to prepare students for the rapidly growing and evolving field of global business. In today's increasingly interlinked world economy, virtually all business involves international human resources, management, marketing, supply chain management, and finance. In addition, information technology and legal systems must be understood and coordinated on a global basis. The Global Business Management program, through required and a wide array of elective courses allows students to complete degree requirements focusing on key aspects of international business. Students in the program will also develop an appreciation and understanding of other cultures through foreign language and area studies courses, which allow them to explore countries and languages of particular interest. As part of the Global Business program, study at campuses outside the United States is strongly encouraged.

Typical Employment Opportunities
International Marketing/Sales/Advertising
Management of Multinational Corporations (MNCs)
International Human Resource Management
Global Strategic Planning Management
Product/Service Development
Product/Brand Management
Procurement/Purchasing Management
Quality Management
International Supply Chain Management
Strategic Sourcing
International Logistics
Warehouse and Distribution Center Management
Site and Outsourcing Management
Production Management in Manufacturing and Service
Enterprises

Global Business Management (BS) Program Outcomes:
- Graduates will be effective communicators and possess critical thinking skills necessary to analyze and solve problems in a global context.
- Graduates will have an appreciation of multiple cultures and learn to work effectively in a multi-cultural and diverse environment in different areas of the world.
- Graduates will have an understanding of global financial theories and systems, global markets, and legal issues in an international environment.
- Graduates will have the ability to work well in global teams and understand the social context of businesses in a global society

Program of Study

Required:
Liberal Arts and Sciences .... (61 credits)
EGL 101 Composition 1: College Writing (GE)...........................3
EGL 102 Composition 2: Writing About Literature.....................3
Basic Communication (GE)...3
Humanities (GE) 3
The Arts (GE)...3
American/Other World/Western Civilization History (GE)...........3
MTH 117 Precalculus Modeling for the Life and Social Sciences
OR
MTH 129 Precalculus with Applications or higher (GE).............4
ECO 156 Macroeconomics (GE)...................................3
ECO 157 Microeconomics...3
Natural Science (GE)...3
Foreign Language II (GE)..3
Area Studies or Foreign Language by advisement.....................6
Math 110 Statistics (GE) 3
Politics Elective by advisement 3
PHI 207 Business Ethics..3
Economics elective by advisement 3
Arts & Sciences electives..9
Please refer to the General Education and Writing-Intensive Requirement Sections of the College Catalog and consult with your advisor to ensure that graduation requirements are satisfied.
Global Business....................................... (51 credits)
BUS 101 Accounting I...3
BUS 102 Accounting II..3
BUS 109 Management Theories & Practices............................3
BUS 131 Marketing Principles.......................................3
BUS 201 Corporate Finance..3
BUS 202 Business Law I...3
BUS 280 International Business.....................................3

BUS 300 Operations Management 3
BUS 320 International Marketing 3
BUS 321 International Law 3
BUS 322 International Management 3
BUS 366 International Human Resource Management..............3
BUS 409 Strategic Management..3
BUS 473 Global Finance...3
BUS 494 Seminar in Global &
International Business Management...3
BCS 102 Computer Concepts & Applications 3
BCS 300 Management Information Systems...............................3
Electives... (9 credits)
Global Business elective 3
Global Business elective 3
Free elective...3
Total Credits:...121

Horticultural Technology Management

Dr. Jonathan M. Lehrer, Chair
Urban Horticulture and Design Department
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631-420-2711
School of Business

Bachelor of Technology Degree

The Horticultural Technology Management program is designed to produce versatile graduates prepared for a wide range of entry-level and middle management positions in the extensive green industry on Long Island and beyond. The horticultural green industry is a diverse conglomerate of growers, retailers, designers, installers, and maintenance personnel serving public and private gardens, homeowners, golf courses, parks and recreational facilities.

Through a selection of required and elective courses in the concentration, students will become progressively more specialized and advanced in their chosen area of interest. The Horticultural Technology Management program has a common business and horticulture core which serves as the foundation for the two concentrations in the program.

The two major concentrations are: General Horticulture and Landscape Development. Each concentration offers a sequence of courses that builds upon a strong foundation in the discipline and draws from a multi-disciplinary array of course work in Horticulture, Business and the Arts and Sciences.

The broad scope of courses allows students to experience various phases of horticultural operations as well as business procedures and practices. The mix of horticulture and business content maximizes employment opportunities and career choices. Graduates of this program may develop careers owning and operating their own businesses, propagating plants, designing interior and exterior landscapes, and managing golf courses, estates, public gardens and garden centers.

Horticultural Technology Management (BT) Program Outcomes:

This major has two concentrations: Landscape Development and General Horticulture.

General Horticulture (BT) Program Outcomes:

- Graduates will receive a strong foundation in science and master skillsets utilizing traditional and cutting edge techniques.

- Graduates will demonstrate diverse knowledge and skills required to perform professionally in today's complex multi-disciplinary environment.

- Graduates will exhibit the knowledge necessary to understand horticulture from an historical perspective, as well as current and future trends of industry.

- Graduates will have learned specific professional skills addressing the science and art of growing and utilizing cultivated plants to beautify, enhance and restore private and public landscapes, and become familiar with ever-changing industry procedures, practices and techniques.

- Graduates will have learned specific professional skills addressing resume development, self-promotion and job search skills in order to successfully compete in the current job market.

Landscape Development (BT) Program Outcomes:

- Graduates will receive a strong foundation in design, and master skillsets utilizing traditional and cutting edge digital techniques.

- Graduates will demonstrate diverse knowledge and skills required to perform professionally in today's design environment.

- Graduates will exhibit the knowledge necessary to understand design from an historical perspective, as well as current and future trends of industry.

- Graduates will have learned specific professional skills addressing resume development, self-promotion, job search skills, industry procedures and practices and presentation techniques.

- Graduates will have created a portfolio of work, which will meet industry demands in order to successfully compete in the current job market.

Program of Study

Required:
Liberal Arts and Sciences: .... (43 credits)
EGL 101 Composition I: College Writing (GE)............................3
EGL 102 Composition II: Writing About Literature.....................3
SPE 130 or SPE 202 (GE) 3
Humanities (GE) 3
American/Other World/Western Civilization History (GE)...........3
Mathematics (GE) 3
The Arts (GE)..3
Social and Behavioral Sciences (GE)..3
General Education elective (GE)...3
BIO 192 Botany (GE)...4
BIO 198 Entomology (GE) **OR**
BIO 290 Entomology II 3-4
Students must select 8 credits from:
BIO 353/BIO 354L Essentials of Plant Pathology/Lab 4
BIO 355 Ecological Topics **OR**
BIO 330 Principles of Ecology 4
CHM 124 Principles of Chemistry 4
Required: BUS/BCS/IND Courses........................ (21 credits)
BCS 102 Computer Concepts & Applications 3
BUS 109 Management Theories and Practices.........................3
BUS 131 Marketing Principles..3
BUS 141 Contemporary Business Communications..................3
BUS 230 Environmental Law **OR**
BUS 202 Business Law I...3
BUS/IND/BCS Electives (300 level or above).............................6

Required: Horticulture Courses .... (28 credits)

HOR 110 Horticulture I..3
HOR 111 Horticulture II Growth and
  Development of Cultivated Plants................................3
HOR 112 Soils: The Foundation of Life 3
HOR 127 Horticultural Seminar 1
HOR 131 Landscape Drafting I 3
HOR 204 Herbaceous Plants II 3
HOR 211 Woody Plants I...3
HOR 212 Woody Plants II 3
HOR 340 The Sustainable Garden.............................3

Writing Intensive: Students must choose one of the following:

HOR 320W Public Garden Management **OR**
HOR 350W The History of Garden Design &
  Landscape Architecture 3

Please refer to the General Education and Writing Intensive requirement sections of the College Catalog and consult with your advisor to ensure that graduation requirements are satisfied.

Concentration Requirements (choose one):

General Horticulture: The concentration in General Horticulture provides a generalized study of horticulture and business. Through a wide range of electives, students can develop specific areas of expertise. The program of study includes training in plant identification, botany, entomology, soil science, business, and computer business applications. Students may elect additional courses in plant propagation, landscape construction, commercial floral design, arboriculture, ecology, and turf and grass management. Laboratory hours provide students valuable "hands-on" experience in the College's extensive greenhouses and ornatmental gardens.

General Horticulture Concentration:...............(31-32 credits)

HOR 103 Herbaceous Plants I 3
HOR 200 +- Level Electives......................................18
___ 200 +- Level Elective (by advisement: if not HOR) 3-4
HOR 311 Woody Plants III:Advanced Topics 3
HOR 475 Horticulture Practicum...............................4

Landscape Development: The focus of this specialization is to prepare students for business in professional landscape contracting and landscape design. The student is trained in landscape drafting, landscape graphics, landscape plans, landscape construction, landscape surveying, computer-aided design, plant materials, professional practices, business, and computer business applications.

Landscape Development Concentration: .... (31 credits)

HOR 133 Landscape Drafting II 3
HOR 207 Landscape Plans I 3
HOR 219 Landscape Construction 3
HOR 220 Landscape Plans II 3
HOR 370 Landscape Professional Practices.............................3
HOR 371 Landscape CAD I.......................................3
HOR 372 Site Engineering I......................................3
HOR Electives (200 level or above) 6
HOR 474 Design Capstone Project 4
Total Credits:...122-123

Notes:

The selection of electives should be done in consultation with a full-time member of the Department.

Students must maintain a cumulative GPA of 2.0 in their horticulture courses.

Industrial Technology - Automotive Management Technology

Dr. Mohamad Zoghi, Acting Chair
Automotive Technology Department
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631-794-6292
School of Engineering Technology

Bachelor of Science Degree

This is a four-year program offered by the Automotive Technology Department. Students may matriculate on a full-time or part-time basis.

The Bachelor of Science in Automotive Management Technology program is designed to develop the requisite skills for management positions in automotive or related fields. Specifically, the program will provide advanced training in such areas as personnel management and motivation, customer relations, and community relations. Additionally, training is provided in business related topics such as accounting, financing and leasing, and occupational safety.

Students will learn to enhance their ability to manage personnel, maintain successful and mutually rewarding relationships with customers, and successfully manage the business and financial aspects of the enterprise. This Bachelor of Science degree will provide, for a person with technical training and experience, the skills and credentials necessary to advance into management level positions.

Students are required to take a common core of liberal arts and science courses and a series of curriculum specific business management courses.

Typical Employment Opportunities:

Automotive Retail Chain Manager
Automotive Parts Manager
Automotive Service Manager
Automotive Business Manager
Automotive Financing/Leasing Manager
Fleet Management
Vehicle Manufacturer District Service Manager

Automotive Management Technology (BS) Program Outcomes:

- Graduates will have the technical skills, knowledge and ability to enter their chosen Automotive Technology discipline.
- Graduates will have good written and oral communication skills.
- Graduates will develop and be able to maintain the necessary knowledge to operate within all areas of land, sea and air (ground support) vehicles, equipment, facilities, service and operations.

This program is accredited by the Association of Technology, Management and Applied Engineering, 1390 Eisenhower Place, Ann Harbor, MI 48108, 734-677-0720 www.atmae.org

Program of Study
Required:
Liberal Arts and Sciences .... (60 credits)
EGL 101 Composition I: College Writing (GE)...........................3
EGL 102 Composition II: Writing About Literature.....................3
Basic Communication (GE)..3
The Arts (GE)..3
Foreign Language (GE)..3
Social & Behavioral Science (GE)...6
American/Other World/Western Civilization History (GE)..........3

Humanities (GE) 3
Natural Science (GE)..8
PHY 135 College Physics I (GE) 4
PHY 136 College Physics II 4
Liberal Arts and Sciences Electives............................9
MTH 110 Statistics (GE)..3
MTH 129 Precalculus with Applications......................4
MTH 130 Calculus with Applications 4
Please refer to the General Education and Writing-Intensive Requirement Sections of the College Catalog and consult with your advisor to ensure that graduation requirements are satisfied.

Common Core For All Industrial Technology Students .... (12 credits)
BUS 101 Accounting I..3
BUS 102 Accounting II..3
BUS 300 Operations Management 3
MET 104 Computer Aided Drafting and Design (CADD) 3

Automotive Management Technology Option..... (53 credits)
AET 101 Internal Combustion Engine Theory and Servicing 3
AET 106 Suspension and Control Systems 3
AET 107 Manual Drivetrains and Driveaxles 3
AET 150 Automotive Computer Applications...............2
AET 208 Automotive Electrical Applications................3
AET 215 Diesel Engines...3
AET 217 Applied Mechanics and Engineering Materials............3
AET 255 Computerized Engine Controls 3
AET 257 Automatic Transmissions...............................3
IND 308 Occupational Safety.......................................3
IND 316 Customer Relations and Quality 3
IND 317 Automotive Financing and Leasing 3
IND 320 Fleet Management...3
IND 408 Automotive Business Management 3
AET 410W Senior Project 3
Technical Elective
(AET, EET, IND, MET, BUS)...9
Total Credits:..125

Industrial Technology - Facility Management Technology

Dr. Hazem Tawfik, Co-Chair
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Dr. Jeff Hung, Co-Chair
Jeff.Hung@farmingdale.edu
Mechanical Engineering Technology Department
631-420-2046
School of Engineering Technology

Bachelor of Science Degree
This is a four-year program offered by the Mechanical Engineering Technology Department. Students may matriculate on a full-time or part-time basis. The Bachelor of Science program in Facility Management Technology is designed to serve the growing need for technically competent facility managers, and to meet the transfer and continuing education needs of associate degree graduates (or transferring students from a related field of study).

Typical Employment Opportunities:
Plant Engineer
Facilities Maintenance Manager
Facility Manager
Commissioner of Public Works
Director of Physical Plant
Superintendent of Building & Grounds
Director of Facility Management
Vice President of Facilities Engineering

Facility Management Technology (BS) Program Outcomes:

■ Graduates will have the knowledge and skills and will assume leadership positions in maintenance and operation of buildings and grounds, management of structural and electrical maintenance, energy management, personnel management, budgeting and space planning.

■ Graduates will be able to apply the latest technologies of heating, ventilation and cooling systems, security and fire protection systems, occupational and environmental health and safety to the solution of facility maintenance, operation and management problems.

■ Graduates will exhibit an understanding of the necessity for personal integrity, ethical behavior, cultural awareness and lifelong learning.

The Facility Management Technology Program has an Advisory Committee of professional societies representing the facility management field in the metropolitan area. This committee, through periodic meetings with the faculty, provides the guidance required in maintaining a relevant and viable program.

This program is accredited by the Association of Technology, Management and Applied Engineering, 1390 Eisenhower Place, Ann Harbor, MI 48108, 734-677-0720 www.atmae.org

Program of Study
Required:
Liberal Arts and Sciences .... (60 credits)
EGL 101 Composition I: College Writing (GE)....................3
EGL 102 Composition II: Writing About Literature....................3
The Arts (GE)...3
Basic Communication (GE)...3
Foreign Language (GE)..3
Social and Behavioral Science (GE)............................3
American/Other World/Western Civilization History (GE)...........3
Humanities (GE) 3
Natural Science* 8
PHY 135 College Physics I (GE) 4
PHY 136 College Physics II (GE) 4
MTH 110 Statistics (GE)..3
MTH 129 Precalculus w Applications..........................4
MTH 130 Calculus w Applications 4
Liberal Arts and Sciences Electives............................9
*For Natural Science Elective, at least one chemistry course.
Please refer to the General Education and Writing-Intensive Requirement Sections of the College Catalog and consult with your advisor to ensure that graduation requirements are satisfied.
Required: Industrial Technology Common Core... (9 credits)
BUS 101 Accounting..3
BUS 102 Accounting II..3
BUS 300 Operations Management 3
Facility Management Technology .... (56 credits)
IND 308 Occupational Safety.......................................3
IND 309 Security and Fire Protection Systems 3
IND 310 Industrial Hygiene 3
IND 315 Facilities Planning 3
IND 402 Facility Maintenance Management 3
IND 405 Heating Ventilating, & Air Conditioning Systems..........3
IND 406 Energy Management 3
MET 104 Computer Aided Drafting and Design (CADD) 3

MET 109 Computer Programming and Applications.................2
MET 205W Material Science 3
MET 212 Applied Fluid Mechanics......................................3
MET 230 Electrical Principles...3
MET 307 Electromechanical Control Systems 3
MET 314 Applied Thermodynamics 3
Technical Electives
(AET,BCS,BUS,CON,EET,HOR,IND,MET courses) 15
Total Credits:..125

Interaction Design (IxD)

Prof. Bill Steedle, Acting Chair
Visual Communications Department
Bill.Steedle@farmingdale.edu
631-420-2181
School of Business

Bachelor of Technology Degree
The Interaction Design Bachelor of Technology degree focuses on human behavior and user experience in the design and development of mobile applications, responsive web design and user experiences, service design, social networks, way-finding projects, brick and mortar and on-line retailing, exhibit design and more. This program encourages a culture in which students learn the value of collaboration, vision, risk-taking, discovery, entrepreneurship, passion, social responsibility and play. Students will immerse themselves in an environment that focuses on the practical application of user-centered, needs-based design solutions built upon strong research and development, observation, and prototyping.

Interaction Designers have the ability to influence the future development of products, systems and services in fields as diverse as education, healthcare, banking, business, and more. Graduates of the program will enter into employment such as mobile interface design, web design, user experience design (UX), user interaction design (UI), human computer interaction and more.

Typical Employment Opportunities
Application Development
Data Visualization
Immersive Experience
Interactive Installation
Kiosk Design and Development
Museum Experience Design
User Experience Design (UX)
User Interface Design (UI)
Web Development and Design

Interaction Design (IxD) (BT) Program Objectives:
- Graduates will develop and build upon strong foundational design skills through exploration and experimentation.

- Graduates will master skill sets in traditional and digital techniques to design successful interactive experiences

- Graduates will exhibit an understanding of graphic design and interaction design from both an historical perspective as well as from a contemporary perspective with current and future trends of industry being paramount.

- Graduates will build professional skills including resume development, self promotion, job search, industry procedures and practices and presentation techniques.

- Graduates will present a portfolio of work in order to successfully compete in the current job market and to apply for graduate study. In this portfolio, students will demonstrate knowledge of current technical and conceptual interaction design standards.

Program of Study
Required:

Liberal Arts and Sciences .... (33 credits)
EGL 101 Composition I: College Writing (GE)............................3
MTH Elective (Statistics Preferred) (GE)....................................3
EGL 102 Composition II: Writing About Literature.....................3
ART 200 History of Graphic Design (GE) 3
SPE Elective (GE)...3
SOC 122 Introduction to Sociology (GE) 3
HIS Elective (GE)..3
ART 201 Survey of Art History:
   Prehistoric Times Through Middle Ages (GE)
OR
ART 202 Survey of Art History:
   Early Renaissance to the Present (GE)...................................3
PSY 101 Introduction to Psychology (GE)..................................3
BIO/PHY Elective (GE) 3
ART 203 History of Interaction Design.......................................3
Please refer to the General Education and Writing Intensive requirement sections of the College Catalog and consult with your advisor to ensure that graduation requirements are satisfied.

Support Courses .... (21 credits)
BCS 130 Website Development I 3
BCS 240 Website Development II 3
PSY 328 Introduction to Human Factors 3
Free Electives..6
300 + Electives..6

Interaction Design Core .... (67 credits)
VIS 110 Drawing I..3
VIS 112 Two-Dimensional Design..3
VIS 115 Three-Dimensional Design..3
VIS 116 Digital Media and Methods 3
VIS 122 Typography I...3
VIS 225 Photography I..3
VIS 228 Four-Dimensional Design..3
IXD 210 Typography for Interaction..3
IXD 212 Interaction Design I-Foundation 4
IXD 310 Interaction Design II- User Interface 4
IXD 312 Research Strategies..3
IXD 320 Interaction Design III-User Experience 4
IXD 322 Prototype Tools..3
IXD 330 Design for Social Change..3
IXD 410 Interaction Design IV- Advanced Interaction Design 4
IXD 412 Special Topics Studio 3
VIS 340 Industry Preparation 3
VIS 416 Senior Project I...3
VIS 426 Senior Project II...3
IXD 414 Design and Play Machanics...3
VIS 418 Portfolio 3
Total Credits:...121

Manufacturing Engineering Technology

Dr. Hazem Tawfik, Co-Chair
Hazem.Tawfik@farmingdale.edu
Dr. Jeff Hung, Co-Chair
Jeff.Hung@farmingdale.edu
Mechanical Engineering Technology Department
631-420-2046
School of Engineering Technology

Bachelor of Science Degree

This is a four year program offered by the Mechanical Engineering Technology Department. Students may matriculate on a full-time or part-time basis.

Students receive hands-on experience using industrial equipment in the department's well equipped computer, strength, design, materials, manufacturing, quality control, electromechanical control systems, and robotics laboratories. The department is particularly proud of its Institute for Research and Technology Transfer (IRTT) which contains automated commercial-Computer Numerical Control (CNC) Turning Center, CNC Machining Center, Coordinate Measuring Machine (CMM), Vision Guided Robotics System, Laser Cutting Machine, Thermal Spray-High Velocity Oxygen Fuel (HVOF) Machine, Rapid Prototyping Machine Hydrogen Fuel Cell and Biomass Energy Research. Advanced manufacturing computer programs such as: Computer Aided Manufacturing (CAM) that runs on the latest hardware and software systems. Up-to-date courses in Statistical Quality Control (SQC) and Statistical Process Control (SPC), Electronic Packaging Applications, Robotics and Automation systems, Electromechanical Control Systems and Tooling for Composites complement traditional courses such as Statics, Strength of Material Science providing graduates with a well-balanced and needed background. Students also benefit from the close relationship between the College and local industry through a required senior project that provides the student with valuable integrating capstone experience.

The graduate serves as the integrator and implementer of new designs, manufacturing and production operations. He or she provides the applied technical expertise to translate design information into the necessary tools, instruction, procedures, operation sequences and controls to coordinate the cost-effective manufacturing of high quality products.

Typical Employment Opportunities

Industrial Designer
Mechanical Designer
Process Designer
Junior Designer
Manufacturing Designer
Technical Writer
Chief Designer
Senior Quality Control (QC) Supervisor
Numerical Control (NC) Programmer

Manufacturing Engineering Technology (BS)
Program Outcomes:

- Graduates will have the knowledge and skills and will assume leadership positions in process and systems design, manufacturing operations, maintenance, technical sales or service functions in a manufacturing enterprise.

- Graduates will be able to apply the technologies of materials, manufacturing processes, tooling, robotics and automation, production operations, maintenance, quality, industrial

organization and management, and statistical models to provide solution for manufacturing and industrial problems.

- Graduates will exhibit an understanding of the necessity for personal integrity, ethical behavior, cultural awareness and lifelong learning.

This program is accredited by the ETAC/ABET, www.abet.org

Program of Study
Required:
Liberal Arts and Sciences .... (60 credits)

EGL 101 Composition I: College Writing (GE)............................3
EGL 102 Composition II: Writing About Literature......................3
Basic Communication (GE)..3
The Arts (GE)..3
Foreign Language (GE) 3
Social and Behavioral Science (GE)..3
American/Other World/Western Civilization History (GE)...........3
Humanities (GE) 3
Natural Science*...8
PHY 135 College Physics I (GE) 4
PHY 136 College Physics II (GE) 4
Math Elective 3
MTH 110 Statistics (GE)..3
MTH 129 Precalculus with Applications....................................4
MTH 130 Calculus with Applications 4
MTH 236 Calculus II with Applications 3
Liberal Arts & Sciences elective...3

*For Natural Science Elective, at least one chemistry course.

Please refer to the General Education and Writing-Intensive Requirement Sections of the College Catalog and consult with your advisor to ensure that graduation requirements are satisfied.

Support Courses .... (3 credits)

BUS 300 Operations Management 3

Required: Mechanical/Manufacturing Courses ..(63 credits)

MET 104 Computer Aided Drafting and Design (CADD) 3
MET 109 Computer Programming and Applications...................2
MET 117 Manufacturing Processes...2
MET 127 Advanced Manufacturing Processes...........................2
MET 201 Statics...3
MET 205W Material Science 3
MET 206 Strength of Materials...3
MET 207 Tool Design..3
MET 230 Electrical Principles...3
MET 252 Quality Control (Metrology)..3
MET 305 Tooling for Composites..3
MET 307 Electromechanical Control Systems 3
MET 351 Computer Aided Manufacturing(CAM) 3
MET 406 Electronic Packaging Applications..............................3
MET 409 Statistical Quality Control(SQC) 3
MET 410W Senior Project..3
MET 415 Robotics...3
Technical Electives
(AET,BCS,BUS,CON,EET,IND,MET courses in consultation with department chair) 15
Total Credits:...126

Mechanical Engineering Technology

Dr. Hazem Tawfik, Co-Chair
Hazem.Tawfik@farmingdale.edu
Dr. Jeff Hung, Co-Chair
Jeff.Hung@farmingdale.edu
Mechanical Engineering Technology Department
631-420-2046
School of Engineering Technology

Bachelor of Science Degree

This is a four-year program offered by the Mechanical Engineering Technology Department. Students may matriculate on a full-time or part-time basis.

Students receive hands-on experience using industrial equipment in the department's well-equipped computer, strength, design, materials, manufacturing, quality control, electromechanical control systems, and robotics laboratories. The department is particularly proud of its Institute for Research and Technology Transfer (IRTT), which contains the latest automated commercial CNC Turning Center, CNC Milling Center, Coordinate Measuring Machine (CMM), Vision Controlled Pick and Place Robot, Laser Cutting Machine, Thermal Spray (HVOF) Machine, Rapid Prototyping Machine Hydrogen-Fuel Cell and Biomass Energy Research. Advanced design and manufacturing computer programs such as Finite Element Analysis (FEA) and Computer Aided Manufacturing (CAM) are run on the latest PC's. Up-to-date courses in Electronic Packaging Applications, Robotics, Electromechanical Control Systems, and HVAC System Design complement traditional courses such as Statics, Dynamics, Strength of Materials, Material Science, Machine & Product Design, Applied Fluid Mechanics, Applied Thermodynamics, and Applied Heat Transfer providing graduates with a well-balanced background. Students also benefit from the close relationship between the College and local industry through a required senior project that is an integrating capstone experience. This program is accredited by the ETAC/ABET, www.abet.org

Graduates will be prepared for a wide range of opportunities in industry, including computer-aided analysis, design, and manufacturing; heating, ventilating and air conditioning system design; and materials and equipment performance testing.

Typical Employment Opportunities

Facility Designer
Mech. Equip. Designer
Process Designer
Junior Designer
HVAC System Designer
Technical Writer
Field Service Rep
Power Plant Supervision
Equipment Testing

Mechanical Engineering Technology (BS)
Program Outcomes:

- Graduates will have the technical skills and will assume leadership positions in the design, installation, manufacturing, testing, evaluation, technical sales, or maintenance of mechanical systems.

- Graduates will have the technical background in the analysis, applied design, development, implementation, and oversight of advanced mechanical systems and processes.

- Graduates will exhibit an understanding of the necessity for personal integrity, ethical behavior, cultural awareness and lifelong learning.

Program of Study
Required:
Liberal Arts and Sciences .... (60 credits)
EGL 101 Composition I: College Writing (GE)...........................3
EGL 102 Composition II: Writing About Literature.....................3
Basic Communication (GE)...3
The Arts (GE)..3
Foreign Language (GE) 3
Social and Behavioral Science (GE)....................................3
American/Other World/Western Civilization History (GE)...........3
Humanities (GE) 3
Natural Science* 8
PHY 135 College Physics I (GE) 4
PHY 136 College Physics II (GE) 4
Math Elective 3
MTH 110 Statistics (GE)..3
MTH 129 Precalculus with Applications..................................4
MTH 130 Calculus with Applications 4
MTH 236 Calculus II with Applications 3
Liberal Arts & Sciences elective...3
*For Natural Science Elective, at least one chemistry course. Please refer to the General Education and Writing-Intensive Requirement Sections of the College Catalog and consult with your advisor to ensure that graduation requirements are satisfied.
Support Courses .... (3 credits)
IND 405 HVAC Systems 3
Required: Mechanical/Manufacturing Courses .. (63 credits)
MET 104 Computer Aided Drafting and Design (CADD) 3
MET 109 Computer Programming and Applications..................2
MET 117 Manufacturing Processes......................................2
MET 127 Advanced Manufacturing Processes.........................2
MET 201 Statics...3
MET 205W Material Science 3
MET 206 Strength of Materials..3
MET 207 Tool Design...3
MET 212 Applied Fluid Mechanics......................................3
MET 230 Electrical Principles...3
MET 252 Quality Control (Metrology)...................................3
MET 300 Computer Aided Engineering (CAE) 3
MET 307 Electromechanical Control Systems 3
MET 308 Machine and Product Design..................................3
MET 314 Applied Thermodynamics............ 3
MET 351 Computer Aided Manufacturing (CAM) 3
MET 405 Dynamics..3
MET 406 Electronic Packaging Applications...........................3
MET 410W Senior Project..3
MET 411 Applied Heat Transfer...3
MET 415 Robotics...3
Technical Electives* 3
* Technical Electives must be selected from AET, IND, and MET courses in consultation with department chair.
Total Credits:..126

Part-Time Program

Students who elect to complete the Bachelor degree requirements on a part-time basis are required to take the same courses as those attending full-time.

Part-time students may register for day or evening courses. When registering, students must follow the correct course sequence and pay particular attention to course prerequisite(s). Part-time students must meet with a Faculty Advisor or the Department Chair prior to registration.

Medical Technology

Dr. Karen Escolas, Chair
Medical Laboratory Technology Department
Karen.Escolas@farmingdale.edu
631-420-2257
Theresa Patnode Santmann School of Health Sciences

Bachelor of Science Degree

The BS program in Medical Technology (BSMT) prepares graduates for a wide range of positions in the clinical laboratory profession. The curriculum includes development of the theoretical knowledge, technical skills, and problem-solving abilities necessary for entry into practice at the technologist level. While enrolled in the program, students experience a supportive learning environment in the Medical Laboratory Technology campus laboratories, where the theoretical background introduced during lecture sessions is linked to clinical laboratory practice through the development of technical proficiency. The educational experience includes clinical internships at local affiliated clinical laboratories in which the students are prepared for the transition into the clinical laboratory workplace.

The BS in Medical Technology program is specifically designed to meet the educational requirements for licensure as a Clinical Laboratory Technologist in New York State. As a result, graduates of the program will have the educational background that prepares them for the NYS licensure examination and will be eligible to apply for NYS licensure, a necessity to work in a clinical laboratory in New York State. The BS in Medical Technology program is also designed to meet the accreditation standards outlined by the National Accrediting Agency for Clinical Laboratory Science (NAACLS). Accreditation of the BS program was awarded in 2013 so that graduates of the program are eligible to take the national certification examination offered by the American Society for Clinical Pathology Board of Certification (ASCP-BOC). Passing of this certification examination designates the graduate as MLS(ASCP). Traditionally, both program accreditation and graduate certification eligibility have been necessary components of programs in clinical laboratory science, and the achievement of certification is often a requirement for employment within the field throughout the United States.

All matriculated students must provide evidence of appropriate immunizations, as well as titers for measles, mumps, rubella, varicella, and Hepatitis B. It is strongly recommended that students who test negative for Hepatitis B receive the appropriate vaccine. A Mantoux test for tuberculosis is required on a yearly basis during program enrollment. Each student is also required to participate in a liability insurance policy provided by the college which will afford malpractice coverage during the time enrolled in the MT curriculum. Students are responsible for providing their own transportation to and from the clinical sites. A laboratory fee that covers a lab coat, personal protective equipment, and other general supplies for use during laboratory sessions will be collected from students enrolled in all laboratory courses offered in the MLT department.

All students enrolled in the MT program must have a background check completed as a condition for enrolling in and attending the required clinical internship courses. The background check is a onetime requirement for students continually enrolled in the MT program. Based on the information revealed in the background check, a clinical site has the right to refuse a clinical experience for a student.

Students enrolled in the MLT program will have the opportunity to participate in the MLT Club on campus.

Please refer to the Safety and Technical Standards in the front section of the College Catalog.

Typical Employment Opportunities

Graduates may obtain employment as medical technologists/clinical laboratory technologists in hospitals, private clinical laboratories, physician office laboratories, research and industry laboratories, and in the sales, development, and technical support of clinical laboratory equipment and supplies.

Medical Technology (BS) Program Outcomes:

- Graduates will be prepared with the knowledge and technical skills to obtain a NYS license and national certification at the technologist level of practice.

- Graduates will be proficient in performing the full range of clinical laboratory tests in areas such as hematology, clinical chemistry, immunohematology, microbiology, serology/immunology, coagulation, molecular, and other emerging diagnostics.

- Graduates will be prepared to play a role in the development and evaluation of test systems and interpretive algorithms.

- Graduates will have diverse responsibilities in areas of analysis and clinical decision-making, regulatory compliance with applicable regulations, education, and quality assurance/performance improvement wherever laboratory testing is researched, developed, or performed

- Graduates will possess basic knowledge, skills, and relevant experiences in: Communications to enable consultative interactions with members of the healthcare team, external relations, customer service and patient education; Financial, operations, marketing, and human resource management of the clinical laboratory to enable cost-effective, high-quality, value-added laboratory services; Information management to enable effective, timely, accurate, and cost-effective reporting of laboratory-generated information, and; Research design/practice sufficient to evaluate published studies as an informed consumer.

This program is accredited by the National Accrediting Agency for Clinical Laboratory Science (NAACLS), 5600 N. River Road, Suite 720, Rosemont, IL 60018-5119, www.naacls.org

Program of Study
Required:

Liberal Arts and Sciences .... (68 credits)
EGL 101 Composition I: College Writing (GE)............................3
EGL 102 Composition II: Writing About Literature.....................3
BIO 130 Principles of Biology (GE)...4
BIO 166 Principles of Human Anatomy & Physiology (GE) 4
BIO 343/344 Genetics with Laboratory 4
BIO 348/349 Cell Biology with Laboratory 4
BIO 441 Molecular Biology...5
CHM 152 General Chemistry I..4
CHM 153 General Chemistry II...4
CHM 260 Fundamentals of Organic Chemistry.........................4
CHM 380 Biochemistry 4
MTH 110 Statistics (GE)...3
MTH 117 Precalculus Modeling for the Life
  and Social Sciences..4
American/Other World/Western Civilization History (GE)...........3
Social and Behavioral Science (GE)..3
The Arts (GE)...3

Basic Communication (GE)..3
Foreign Language (GE) 3
Humanities (GE) 3
Please refer to the General Education and Writing Intensive Requirement Sections of the College Catalog and consult with your advisor to ensure that graduation requirements are satisfied.

Required: Medical Laboratory Technology .... (56 credits)
MLT 105 Medical Laboratory Techniques...................................2
MLT 227 Immunology & Serology 4
MLT 236 Histological Techniques...1
MLT 281 Practicum in Immunohematology................................1
MLT 282 Practicum in Clinical Chemistry and Serology 1
MLT 283 Practicum in Hematology and Urinalysis....................1
MLT 284 Practicum in Clinical Microbiology.............................1
MLT 320 Hematology I 4
MLT 325W Laboratory Management & Informatics....................3
MLT 330 Immunohematology I..4
MLT 340 Clinical Chemistry I..4
MLT 350 Clinical Microbiology I..4
MLT 351 Clinical Microbiology II...4
MLT 420 Hematology II...4
MLT 421 Molecular Pathology..3
MLT 425 Laboratory Research & Education 3
MLT 430 Immunohematology II...3
MLT 440 Clinical Chemistry II...2
MLT 450 Clinical Microbiology III..3
MLT 481 Advanced Practicum in Immunohematology...............1
MLT 482 Advanced Practicum in Chemistry & Hematology 1
MLT 483 Practicum in Molecular Pathology 1
MLT 484 Advanced Practicum in Clinical Microbiology.............1
Total Credits:..124
The grade of "C" or better is required in all courses designated "MLT" as well as all science and math courses.

Nursing

Dr. Lori Goodstone, Chair
Nursing Department
nursing@farmingdale.edu
631-420-2229
Theresa Patnode Santmann School of Health Sciences

Bachelor of Science Degree
The Nursing program prepares students for entry into the profession of Nursing. Upon graduation, students receive the Bachelor of Science degree with a major in Nursing and are eligible to take the National Council of State Board Licensing Exam for RNs (NCLEX-RN).

The curriculum will prepare graduates to provide professional nursing skills to individuals, families and groups in a variety of structured and unstructured healthcare settings, as well as the leadership skills needed to supervise nursing care delivered in community settings. The curriculum offers a balance of courses in general education and nursing. The students are provided with the theoretical knowledge and clinical practice needed to administer care for individuals throughout the life cycle. Graduates are prepared as beginning practitioners to help address the regional need for nurses. Learning experiences take place in the classroom, College nursing laboratory and in a variety of clinical settings. All students are assisted in the development of their potential with guidance offered by faculty who possess broad nursing experience and academic preparation in the field. Students participate in the Student

Nurse Association and have opportunities to volunteer through the Department's Student Nurse Outreach Program.

Applicants MUST submit evidence of satisfactory mental and physical health in advance of registration. Evidence of appropriate immunization, as well as titers for measles, mumps, rubella, varicella, and Hepatitis B are required. Mantoux test for tuberculosis is also required yearly. It is strongly recommended that students who test negative for Hepatitis B receive the appropriate vaccine. Students who decline this recommendation will be required to sign a waiver of responsibility.

All matriculated students are required to have CPR certification for health care providers. Students must provide their own transportation to and from clinical sites. For all field experiences, student dress must conform with agency protocol. New York State RN licensure requires the applicant to be of good moral character. An applicant for licensure who has been convicted of a crime, or has committed an act which raises a reasonable question as to his/her moral character will be subject to review.

All nursing students must have a background check as a condition for enrolling in and attending clinical nursing courses. The background check is a onetime requirement for students continually enrolled in the nursing program. Based on the information revealed in the background check, a clinical site has the right to refuse a clinical experience for a student.

Please refer to the Safety and Technical Standards in the front section of the College Catalog.

Advanced Standing status is available.

Baccalaureate prepared nurses are equipped with the knowledge, skills, and attitudes to meet complex health care challenges. Building on initial nursing preparation, the RN to BS Completion program will prepare graduates for a broader scope of practice, enhanced professional development, and better understanding social, economic, cultural, and political issues that affect health care delivery. Inclusion of leadership and public and community health concepts foster stronger clinical reasoning and analytic skills which promote career advancement.

The Nursing Program is accredited by the Commission of Collegiate Nursing Education, 655 K Street, NW, Suite 750 Washington, DC 20001, (202) 887-6791, Fax: (202) 887-8476

and the New York State Board of Regents through the Division of Professional Education, Professional Education Program Review, 89 Washington Avenue, 2nd Floor West Wing, Albany, NY 11234, P. (518) 474-3817 ext. 360, F. (518) 473-0114

Typical Employment Opportunities
Registered nurses with a Bachelor degree are prepared to assume leadership responsibilities in the roles of provider of care, manager of care, and member of the profession.

Nursing (BS) Program Goals:

■ Contribute to meeting current and future health care needs of diverse populations of the region by educating students to provide safe, evidence-based, and patient-centered professional nursing services that reflect ethical clinical judgment and interprofessional collaboration in varied settings.

■ Provide a quality program in nursing education including, activities, and service programs that are supportive of the learning needs of diverse students so that they may accomplish their educational goals and encourage lifelong learning.

- Use health care technologies, information systems, and technological innovations to create stimulating environments that support and enrich learning and prepare graduates for changes in the health care environment.
- Provide an environment that supports academic and teaching excellence, scholarly activities, and opportunities for leadership and contributions to the nursing profession.
- Educate students to become self-aware, ethical, caring, collaborative, and clinically and culturally competent practitioners prepared to engage in nursing as caregivers and leaders.

Nursing (BS) Program Outcomes:

At the completion of the BS nursing program, graduates will:

- Synthesize knowledge from liberal arts and sciences, humanities and nursing to provide holistic and patient centered care that promotes empowerment and optimal well being of individuals, families and communities.
- Practice professional nursing incorporating caring, respect, diversity, integrity, ethics, and the influences of human responses on illness, suffering and healing to assist individuals, families and communities to achieve maximal fulfillment
- Demonstrate knowledge, critical thinking, and evidence-based clinical judgments to provide therapeutic nursing care interventions for patients throughout the lifespan, for families and communities with multiple and complex health stressors in a variety of settings
- Use effective communication to collaborate with patients, colleagues, and members of the interprofessional health team to improve health care outcomes for patients, families and communities.
- Incorporate principles of safety, health information technology, organizational and health care systems theory, quality improvement, and political trends in the provision of high quality and safe patient care.
- Express an identity of self as a bachelor prepared nurse and exhibit professional values and behaviors as described by ethical, legal, and professional standards of practice.
- Apply leadership, advocacy, and management strategies in multiple settings to advocate for high quality, safe, accessible, and fiscally responsible healthcare.
- Participate in activities that contribute to advancement of the profession including developing autonomy, advocacy, activism, change, and responsible citizenship.
- Integrate evidence-based findings, research, and nursing theory in decision making in nursing practice.
- Engage in self reflection and life-long learning to maintain competence as a member of the profession and to achieve personal goals for professional development.

Program of Study
Required:

Liberal Arts and Sciences .... (60 credits)
EGL 101 Composition I: College Writing (GE)..............................3
EGL 102 Composition II: Writing About Literature.....................3
BIO 170 Human Anatomy and Physiology I (GE) 4
BIO 171 Human Anatomy and Physiology II (GE) 4
BIO 220 Medical Microbiology..4
BIO 240 Bioethics...3
American/Other World/Western Civilization History (GE)...........3
MTH 110 Statistics (GE)..3

Foreign Language - Level II (GE)..3
PSY 101 Introduction to Psychology (GE) 3
PSY 232 Child Development 3
SOC 228 Society and Health 3
SPE 202 Interpersonal Communications (GE) 3
The Arts (GE)..3
Humanities (GE) 3
Liberal Arts Elective... 12

Please refer to the General Education and Writing-Intensive Requirement Sections of the College Catalog and consult with your advisor to ensure that graduation requirements are satisfied.

Required: Nursing .... (66 credits)
NUR 110 Foundations of Nursing Practice I 1
NUR 111 Foundations of Nursing Practice II 1
NUR 100 Health Assessment 3
NUR 114 Clinical and Theoretical Foundations
  of Baccalaureate Nursing Practice 7
NUR 215W Developing Nurses' Ways of Knowing 3
NUR 216 The Art of Nursing 2
NUR 211 Clinical Pharmacology for Nursing 3
NUR 217 Care of Individuals Experiencing Acute
  Health Changes..6
NUR 302 Pathophysiology 3
NUR 305 Health Promotion and Patient Education....................3
NUR 306 Care of Individuals Experiencing Chronic
  Health Challenges 6
NUR 307 Nursing Care of Children and
  the Child Bearing Family 6
NUR 401 Modes of Inquiry...3
NUR 404 Nurse as Advocate and Change Agent.....................3
NUR 402 Community and Mental Health Nursing.....................4
NUR 405 Nursing Practicum 9
HST 301 Healthcare Organization...3
Total Credits:..126

To continue in the nursing program a grade of C+ or better must be maintained in all nursing courses. A grade of B or better is required in BIO 170 and BIO 171, and a C is required in BIO 220 to remain in the nursing program.

Nursing RN to BS Completion Program (online)

Dr. Lori Goodstone, Chair
Nursing Department
nursing@farmingdale.edu
631-420-2229
Theresa Patnode Santmann School of Health Sciences

RN to BS Completion Program (online)

The RN to BS Completion Program will prepare licensed registered nurses to provide professional nursing skills to individuals, families and groups in a variety of structured and unstructured healthcare settings, as well as the leadership skills needed to supervise nursing care delivered in acute and community settings. The curriculum offers a balance of courses in general education and nursing. Students are provided with the theoretical knowledge and clinical practice needed to administer care for individuals throughout the life cycle. Learning experiences take place in the online environment and a variety of clinical settings. All students are assisted in the development of their potential with guidance offered by faculty who possess broad nursing experience and academic preparation in the field.

Baccalaureate prepared nurses are equipped with the knowledge, skills, and attitudes to meet complex health care challenges. Building on initial nursing preparation, the RN to BS Completion program will prepare graduates for a broader scope of practice, enhanced professional development, and better understanding social, economic, cultural, and political issues that affect health care delivery. Inclusion of leadership and public and community health concepts foster stronger clinical reasoning and analytic skills which promote career advancement.

(All applications submitted for the program by December 15 receive equal consideration.)

The Nursing Program is accredited by the Commission of Collegiate Nursing Education, 655 K Street, NW, Suite 750, Washington, DC 20001, 202-887-6791 and

The New York State Board of Regents through the Division of Professional Education, Professional Education Program Review, 89 Washington Avenue, 2nd Floor West Wing, Albany, NY 11234, P. (518) 474-3817 ext. 360, F. (518) 473-0114

Typical Employment Opportunities

Registered nurses with a Bachelor degree are prepared to assume leadership responsibilities in the roles of provider of care, manager of care, and member of the profession.

Nursing RN to BS Completion Program Goals:

Contribute to meeting current and future health care needs of diverse populations of the region by educating students to provide safe, evidence-based, and patient-centered professional nursing services that reflect ethical clinical judgment and interprofessional collaboration in varied settings.

Provide a quality program in nursing education including, activities, and service programs that are supportive of the learning needs of diverse students so that they may accomplish their educational goals and encourage lifelong learning.

Use health care technologies, information systems, and technological innovations to create stimulating environments that support and enrich learning and prepare graduates for changes in the health care environment.

Provide an environment that supports academic and teaching excellence, scholarly activities, and opportunities for leadership and contributions to the nursing profession.

Educate students to become self-aware, ethical, caring, collaborative, and clinically and culturally competent practitioners prepared to engage in nursing as caregivers and leaders.

Nursing RN to BS Completion Program Outcomes:

At the completion of the RN to BS Completion Program, graduates will:

- Synthesize knowledge from liberal arts and sciences, humanities and nursing to provide holistic and patient centered care that promotes empowerment and optimal well-being of individuals, families and communities.

- Practice professional nursing incorporating caring, respect, diversity, integrity, ethics, and the influences of human responses on illness, suffering and healing to assist individuals, families and communities to achieve maximal fulfillment.

- Demonstrate knowledge, critical thinking, and evidence-based clinical judgments to provide therapeutic nursing care interventions for patients throughout the lifespan, for families

and communities with multiple and complex health stressors in a variety of settings.

- Use effective communication to collaborate with patients, colleagues, and members of the interprofessional health team to improve health care outcomes for patients, families and communities.

- Incorporate principles of safety, health information technology, organizational and health care systems theory, quality improvement, and political trends in the provision of high quality and safe patient care.

- Express an identity of self as a bachelor prepared nurse and exhibit professional values and behaviors as described by ethical, legal, and professional standards of practice.

- Apply leadership, advocacy, and management strategies in multiple settings to advocate for high quality, safe, accessible, and fiscally responsible healthcare.

- Participate in activities that contribute to advancement of the profession including developing autonomy, advocacy, activism, change, and responsible citizenship.

- Integrate evidence-based findings, research, and nursing theory in decision making in nursing practice.

- Engage in self-reflection and life-long learning to maintain competence as a member of the profession and to achieve personal goals for professional development.

Liberal Arts and Sciences .... (60 credits)
EGL 101 Composition I: College Writing....................................3
EGL 102 Composition II: Writing About Literature.....................3
BIO 170 Human Anatomy and Physiology I (GE) 4
BIO 171 Human Anatomy and Physiology II (GE) 4
BIO 220 Medical Microbiology...4
BIO 240 Bioethics 3
American/Western/Other World Civilizations (GE).....................3
MTH 110 Statistics (GE)..3
Foreign Language - Level II (GE)...3
PSY 101 Introduction to Psychology..3
PSY 232 Child Development 3
SOC 228 Society and Health 3
SPE 202 Interpersonal Communications (GE) 3
The Arts (GE)...3
Humanities (GE) 3
Liberal Arts & Sciences Electives. 12 Please refer to the General Education and Writing-Intensive Requirement Sections of the College catalog and consult with your advisor to ensure that graduation requirements are satisfied.

Required: Nursing .... (60 credits)
NUR 215W Developing Nurses' Ways of Knowing 3
NUR 216 The Art of Nursing..2
NUR 301 Community Nursing...4
NUR 305 Health Promotion and Patient Education....................3
NUR 401 Modes of Inquiry...3
NUR 404 Nurse as Advocate and Change Agent.......................3
NUR 406 Senior Leadership Practicum 5
HST 301 Healthcare Organization..3
Nursing Transfer Credits..34

Total Credits..120
Notes: To continue in the nursing program a grade of C+ or better must be maintained in all nursing courses and a C is required in BIO 220.

Professional Communications

Dr. Charles Adair, Acting Chair
Professional Communications Department
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631-420-2321
School of Arts & Sciences

Bachelor of Science Degree

The Bachelor of Science degree program in Professional Communications prepares its graduates for employment with companies and organizations in all of those fields that rely on effective communication, including mass media (newspapers, radio, television), website and social media, health delivery systems, the biopharmaceutical industry, marketing and public relations firms, colleges and universities, sports organizations, and non-profits. Employees in these positions are responsible for creating proposals, articles, presentations, marketing materials, educational materials, grant applications, legal documents, and financial reports, drawing on skill in conducting background research and the ability to write well.

The curriculum in this program reinforces the ability of its students to write effectively while providing the opportunity for hands-on practice in the use of all forms of communication in this rapidly evolving field. Core courses in the major range from advanced writing and editing, research techniques, and communications theory to digital media and methods, media in communications, and writing for electronic media. This preparation is supplemented by support courses in advanced Psychology, Speech, and Visual Communications and the availability of elective courses in various specialties of professional communications.

Students in this curriculum gain a broad academic background through the completion of both General Education requirements and various Arts & Sciences electives. Additional breadth of preparation is achieved through the completion of a Concentration consisting of 12 credits in courses in a specific academic area outside of Professional Communications (English, Speech, Sociology, Psychology, etc.).

The capstone of the program is a senior internship placement in a local company or organization that provides direct experience and the opportunity to apply the skills gained in the program in a professional environment.

Professional Communications (BS) Program Outcomes:

Students who graduate with a Bachelor of Science degree in Professional Communications will have -

- Mastery of a full range of communications skills which are needed in every company and organization and that can lead to successful career paths in a wide range of businesses, industries, and organizations.
- A foundation in the liberal arts and sciences that will ncourage them to aspire to be exemplary citizens, scholars, professionals, and leaders in society, consistent with the mission of the College.

Student Learning Outcomes:

- Students will be able to identify, gather, synthesize, and cite information and sources to support the preparation of professional documents and presentations of all types.
- Students will be able to organize and produce written documents and oral presentations in a variety of professional formats using language that is lucid, concise, precise, grammatically correct, and appropriate to the topic, audience, and occasion.
- Students will be able to effectively revise and edit documents for both content and organization based on the application of standards of grammar, mechanics and syntax.
- Students will be able to deliver effective presentations following appropriate practices, including the utilization of audio-visual materials or technology to enhance their presentations.
- Students will be able to create and update web-based media for optimum effect, making use of the technology associated with electronic media.

Program of Study
Required:
Liberal Arts and Sciences .... (54 credits)
EGL 101 Composition I: College Writing (GE)...........................3
EGL 102 Composition II: Writing About Literature....................3
Humanities (GE) 3
English or Humanities...3
Mathematics (GE) 3
Natural Science (GE)..3
Mathematics or Science..6
Foreign Language - Level II (GE)..3
PSY 101 Introduction to Psychology (GE).................................3
Social Science 9
American/Other World/Western Civilization History (GE)...........3
The Arts (GE)..3
General Education Electives (GE)..6
Liberal Arts and Sciences Electives..6

Please refer to the General Education and Writing-Intensive Requirement sections of the College Catalog and consult with your advisor to ensure that graduation requirements are satisfied.

Program Discipline Courses (will be offered at least once each academic year) .... (36 credits)
EGL 301 Advanced Grammar and Vocabulary..........................3
PCM 305 Media in Communications 3
PCM 311 Introduction to Writing for Electronic Media 3
PCM 313W Communications Theory 3
PCM 315 Research Techniques 3
PCM 328 Advanced Writing and Editing...................................3
PCM 450 Internship in Professional Communications 3

Three courses selected from among the following eight Additional Core Courses:
EGL 226 Journalism...3
PCM 320 Communications in Business I...................................3
PCM 324 Report Writing and Technical Communications.........3
PCM 325 Writing in Health and Disease 3
PCM/SMT326 Sport Writing..3
PCM 329 Legal Writing and Analysis..3
PCM 340 Special Topics in Professional Communications 3
EGL 216 Creative Writing..3

Two courses selected from among the following four offerings:
PCM 420 Advanced Professional Communications...................3
PCM 425 Documentation Procedures 3
PCM 426 Culture and Communication 3
PCM 428 Grant Writing...3

Required Support Courses .... (12 credits)
PSY 331 Industrial/Organization Behavior 3
SPE 331 Advanced Oral Communications 3
VIS 116 Digital Media and Methods 3
VIS 242 Publication Design II 3

Concentration .... **(12 credits)**
At least four courses in a discipline outside Professional Communications.

Free Elective.. **(6 credits)**
Elective 6

Total Credits:..**120**

Notes: Many courses have specific prerequisites, co-requisites and sequence requirements. Please consult with your academic advisor for additional information.

Science, Technology, & Society

Dr. Edmund Douglass, Chair
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631-420-2220
School of Arts & Sciences

Bachelor of Science Degree

Farmingdale State College's Bachelor of Science (BS) in Science, Technology, & Society (STS) is a dynamic interdisciplinary program that allows students to explore the connections between science, technology, and social change. With a cutting-edge focus on globalization, scientific advancement, and technological innovation, the STS degree represents the epitome of the applied social science program of the 21st century. Our program addresses the employment needs of the region and the diverse academic interests of its majors by providing students with an interdisciplinary program of study that incorporates the practical uses of technological knowledge, scientific inquiry, the application of theory to complex problems, and an integrated approach to the learning process. Students examine the real-world effects of globalization, exploring the historical, political, economic, and sociological impact of worldwide industrialization, cross-border technology transfer, global environmental issues, transnational economic interdependence, the spread of information and communication technologies, and other important facets of the current process of globalization. In addition to hands-on training in the technology-related fields, STS majors also develop a strong background in the ways in which scientific, technological, and industrial development have influenced and continue to shape history, society, and culture on the local, national, and international levels.

Graduates of the Science, Technology, & Society program are suited for employment in a variety of settings where their broad view of the technologies, natural sciences, social sciences, and humanities are desirable for the solution of problems. In particular, the program prepares students for careers in technological professions, government and non-governmental organizations (NGOs), environmental agencies, health and wellness, law, diplomacy, and graduate work in the social sciences, liberal arts, and education. Students who are interested in environmental protection and sustainability are able to take advantage of Farmingdale State College's various "green" initiatives, including our nationally-recognized Solar Energy Center, the Green Building Institute, and other facilities associated with sustainable energy.

As globalization places increasingly complex demands on the workforce of the new millennium, international corporations on Long Island have indicated that their future employment needs include graduates who possess the skills developed by completing the Science, Technology, & Society program. While the primary focus of the Science, Technology, & Society program is to prepare its graduates for careers in the local Long Island region and across New York State, graduates of the STS program have a wide variety of employment options available to them upon graduation. For example, graduates of the program may wish to pursue additional training in an area that they investigated in their selected concentration or may elect to pursue graduate studies in a related discipline. As a result, the STS program provides students with a breadth of choices to embark upon once they have completed their degree.

Science, Technology, & Society (BS) Program Outcomes:

Students will select one of the following concentrations: 1) Global Affairs; 2) Media Studies; 3) Environmental Policy; or 4) Health, Wellness, and Society. At the completion of any of the concentrations within the Science, Technology, & Society program:

- Graduates will be able to describe and explain many applications of science and technology within our society.

- Graduates will be able to describe and explain the ways in which technology interacts with the social sciences and other disciplines.

- Graduates will have an in depth knowledge and understanding of a particular subject, while also being able to compare and contrast broader complex issues involving globalization, media, technological change, health and wellness, and environmental policy.

- Graduates will be able to work within the framework of a holistic view of globalization and understand real-world applications of globalization by viewing it from a variety of different disciplinary perspectives.

Program of Study
Required:

Liberal Arts & Sciences .... **(44 credits)**
Communications (GE—other than EGL 101) 3
Humanities (GE) 3
Arts (GE)..3
American History (GE) 3
Other World Civilizations (GE) 3
Western Civilization (GE) 3
Mathematics (GE—one at 110 or higher)....................................6
Foreign Language—Level II (GE)[1] 3
Social and Behavioral Sciences (GE)..3
Natural Science (GE)..4
Natural Science Elective/Lab 4
EGL 101—Composition I: College Writing..................................3
EGL 102—Composition II: Writing about Literature....................3

Free Electives.. **(9 credits)**
STS Technology Requirements .... **(19 credits)**
BCS 160—Computers, Society and Technology[2]......................3
HIS 212—Technology, Politics, and the Modern World 3
ENV 101— Energy Sustainability and Environment 3
GEO 221—Introduction to Geographic Systems 4
SOC 245—Technology, Society and Social Change 3
STS 400W—STS Seminar or STS 401W—Internship[3] 3

STS Concentrations .... **(48 credits)**
All students will choose one of the following concentration areas: Global Affairs, Media Studies, Environmental Policy or Health, Wellness and Society. Primary fields, secondary fields, and STS electives will vary by concentration.

7 courses in a primary field 21
4 courses in a secondary field 12

5 STS Perspectives electives
(at least 2 at the 300-level or above).....................................15

Total Credits:...120

[1] In addition to meeting General Education requirements, STS students must take a Level II (second semester) or higher course in a Foreign Language or demonstrate oral and written fluency.

[2] BCS 102 may be used by students who took the course prior to Fall 2013.

[3] A grade of C or higher is required in the Capstone Course (STS 400W or 401W)

All graduates must have 30 credits in residency and a total of 15 credits of Upper Division (300-level or higher) courses in residency.

STS Concentrations:

Note: Many courses require prerequisites. Please see our course catalog.

Global Affairs

The Global Affairs concentration prepares students for career paths in a dynamic world connected by the flow of people, ideas, money, and goods, including but not limited to occupations in government service, diplomacy, and transnational advocacy. This track is also suitable for students planning to pursue graduate study in the fields of Global Studies, International Relations, Diplomacy, and Law. Students will pursue an applied social sciences curriculum examining such topics as world affairs, geopolitics, environmental issues, technological innovation, industrialization, economic interdependence, international trade, and cultural, social and political change around the globe.

- Seven courses (21 credits) in one of the following disciplines: History, Geography, Economics, Sociology, Anthropology, or Politics

- Four courses (12 credits) in a secondary field from one of the above listed disciplines, Philosophy, or Business Management (School of Business)

- Five STS Perspectives Electives (15 credits), including at least two courses at the 300 level; representative courses in Global Affairs include (others with permission of Department Chair):

ANT 210—Anthropology and Globalization
HIS 305—Culture and Technology in England
HIS 341—Terrorism and the Modern World
MLG 305—Hispanic Culture and Latin American Civilization
MLG 308—Arabic Culture and Civilization
POL 371—Geopolitics
SOC 350—Global Social Change
PSY 304—Multicultural Psychology

Media Studies

The Media Studies concentration prepares students for career paths dependent on a critical understanding of the rapidly changing nature of mass media and information and communication technologies (ICTs), including but not limited to occupations in the cultural industries (film, TV, music, radio, etc.), new media companies, political communication, and corporate/media relations. This track is also suitable for students planning to pursue graduate study in the fields of Media or Cultural Studies, as well as certain Area Studies programs. Students will pursue an applied social sciences/humanities curriculum examining such topics as media studies, cultural exchange, political identity, immigration and multiculturalism, intercultural communication, the evolution of media platforms, and issues of gender, ethnicity, and race.

- Seven courses (21 credits) in one of the following disciplines: History, Geography, Economics, Sociology, Anthropology, English, Modern Languages, or Politics

- Four courses (12 credits) in a secondary field from one of the above listed disciplines, Philosophy, Psychology, Business Management, Computer Systems, Sport Management, or Visual Communications (School of Business)

- Five STS Perspectives Electives (15 credits), including at least two courses at the 300 level; representative courses in Media Studies include (others with permission of Department Chair):

BCS 130—Website Development
ECO 320—Internet and Network Economics
EGL 308—The City in Literature, Art, Film and Theatre
EGL 311—Introduction to Writing for Electronic Media
POL 320—Internet Politics
POL 391—Mass Media and Politics
SMT 220—Media and Sport

Environmental Policy

The Environmental Policy concentration prepares students for policy-related career paths in the evolving realm of "green" technologies, renewable energy, sustainable development, and the protection of ecosystems. This track is also suitable for students planning to pursue graduate study in the fields of Environmental Studies, Public Policy, and International Development. Students will pursue an applied social sciences curriculum examining such topics as ecology, climate change, environmental policy-making, energy sustainability, ethics in the global sphere, green technologies, and regulatory issues.

- Seven courses (21 credit hours) in a single discipline within the Social Sciences (History, Geography, Sociology, Economics, Anthropology, Psychology, or Politics) or Physics

- Four courses (12 credits) in a secondary field from one of the above listed disciplines, Mathematics, Philosophy, or in Environmental Sciences (School of Engineering) or Horticulture (School of Business)

- Five STS Perspectives Electives (15 credits), including at least two courses at the 300 level; representative courses in Environmental Policy include (others with permission of Department Chair):

BIO 353—Essentials of Plant Pathology
BUS 230—Environmental Law
ECO 350—Economics of Global Disasters
ECO 435—Environmental Economics and Policy
ENV 210—Energy and Policy Standards
HIS 320—Europe since the Industrial Revolution
PHI 307—Philosophy of Science and Technology
POL 390—Environmental Politics

Health, Wellness, and Society

The Health, Wellness, and Society concentration prepares students for career paths in a variety of occupations associated with health, medicine, dentistry, nutrition, and well-being, both on the local and international levels. This track is also suitable for students planning to pursue graduate study in the fields of Public Health, Applied Healthcare, and Global Health Policy or degrees/professional programs in Medicine, Dentistry, Medical/Physician's Assistant, Nutrition, Gerontology, Chiropractic, Holistic/Homeopathic Medicine, Midwife, Acupuncture, or other areas of healthcare. Students will pursue an applied social sciences/natural sciences curriculum examining such topics as nutrition, disease and hygiene, the history of healthcare, alternative approaches to medicine, public policy, and the relationship between the human behavior, the environment, and well-being.

- Seven courses (21 credit hours) in one of the following disciplines: History, Geography, Sociology, Anthropology, Economics, Psychology, Politics, Physics, Chemistry, or Biology
- Four courses (12 credits) in a secondary field from one of the above listed disciplines, Philosophy, or Health Studies (Theresa Patnode Satnmann School of Health Sciences)
- Five STS Perspectives Electives (15 credits), including at least two courses at the 300 level; representative courses in Health, Wellness, and Society include (others with permission of Department Chair):

BIO 240—Bioethics
CHM 111—Chemistry and the Public Interest
ECO 310—Health Economics and Policy
HIS 335—Gender and Technology in Historical Perspective
PCM 325—Writing in Health and Disease
SOC 351—Global Health Systems
STS 300—Special Topics in Science, Technology, and Society
PSY 328—Introduction to Human Factors

Security Systems

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Security Systems & Law Enforcement Technology Department
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631-420-2538
School of Engineering Technology

Bachelor of Science

The goal of this program is to provide a positive learning and teaching environment in applied science and technology. The program treats the technical aspects of the discipline in order to educate a new breed security director who integrates crime prevention theory with the design philosophy and hardware and software components of security systems. Criminal justice and security are by their nature information gathering and processing activities and students need to be prepared for a changing work environment where computers will be used extensively. The computer as an integrating technology is emphasized in the program to achieve remarkable effectiveness as well as exceptional efficiency of crime control performance. The Access Control, Computer Forensics, Computer Security, Intrusion Detection, and Security-Imaging Sensor laboratories which house state-of-the-art equipment serve as technical resources for the program. The courseware teaches students how to: manage the movement of people in organizations; detect intrusions on the corporate network; deter acts of corporate espionage and sabotage; and prevent theft of company assets. What is different about this program is that it has been shaped as a digital age curriculum. Students do not simply learn about hardware and software but also are taught how to use it to solve protection problems.

Our program offers students a choice of one of two concentrations, 1), a networking concentration; or 2) a transportation security – aviation concentration.

These concentrations are supported by courses from Farmingdale's Aviation and Computer Systems Departments.

Typical Employment Opportunities
Corporate Security
Federal Law Enforcement Agencies
Local, Municipal, and State Law Enforcement Agencies

Security Systems (BS) Program Outcomes:
- Graduates will have knowledge of advanced computer-based evidentiary and "discovery" data methods, and will be technically competent to administer procedures for evidence identification, documentation, and chain of custody maintenance.
- Graduates will have knowledge to develop comprehensive computer security programs for organizations.
- Graduates will have knowledge to develop protection programs for organizations using an integrated security systems approach.
- Graduates will have an appreciation and understanding of the necessity for personal integrity, professional ethics, and cultural awareness.

Program of Study
Required:
Liberal Arts and Sciences .... (61 credits)
EGL 101 Composition I: College Writing (GE)............................3
EGL 102 Composition II: Writing About Literature.....................3
PSY 101 Intro to Psychology (GE)..3
SOC 122 Introduction to Sociology (GE) 3
Foreign Language (GE)..3
The Arts (GE)..3
MTH 110 Statistics (GE)..3
Natural Science with a Lab (GE) 4
American/Other World/Western Civilization History (GE)...........3
Humanities (GE) 3
Liberal Arts and Sciences Electives...30
Note: The Liberal Arts and Science electives must include:
1. At least 3 credits in General Education
2. At least 9 credits in the Social Sciences
3. At least 12 credits of 200 or higher level courses
Required: Courses in the Major .... (61 credits)
CRJ 100 Introduction to Criminal Justice 3
CRJ 115 Computer Forensics..3
CRJ 200 Criminal Investigation 3
CRJ 217 Computer Forensics II 3
CRJ 218 Computer Forensics III 3
CRJ 230 Biometrics and Identity Theft.......................................3
CRJ 310 Computer Security I..3
CRJ 311 Computer Security II...3
CRJ 312 Computer Security III..3
CRJ 314 Security Law and Policy 3
CRJ 323 Network Defense 3
CRJ 410W Senior Project 3
CRJ 420 Physical Security I 4
CRJ 421 Physical Security II 3
Network Concentration ....(12 Credits)
BCS 208 Introduction to Networks 3
BCS 209 Routing and Switching Essentials 3
BCS 320 Scaling Networks 3
BCS 321 Connecting Networks 3
OR
Transportation Security...(12 Credits)
AVN 280 Intro to Air Cargo Operations-Basic 3
AVN 300W Government in Aviation...3
AVN 400 Aviation Law 3
AVN 417 Homeland Security in Aviation 3
Total Credits:..122

Software Technology

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School of Engineering Technology

Bachelor of Science Degree

The Software Technology Program encompasses the technical and professional background needed to customize and apply industry standard software for a wide variety of functions in such industries as business, manufacturing, engineering, and service. As a project intensive and professional practice oriented program, it will focus on the skills and competencies needed to work with and apply the most prominent software in the global market. The program also includes provisions to gain computer hardware and networking skills to function as a computer networking technologist.

The program has been developed in compliance with the ETAC/ABET accreditation criteria. As per the guidelines of the New York State Education Department, the name of the program will change to BS Software Engineering Technology immediately upon receiving ETAC/ABET accreditation.

Typical Employment Opportunities

Software Applications Engineer
Computer Network Technologist
CISCO Computer Network Technologist
SAP Applications Specialist for Materials Management/Supply Chain/Human Resource Management /Quality Control
SAP/ERP Software Configuration Specialist
SAS Software Applications Engineer
Oracle Software Applications
Engineering Design/Manufacturing Graphics Technologist

Software Technology (BS) Program Outcomes:

- Graduates will have the technical skills to customize and apply industry standard software for a wide variety of functions in such industries as business, manufacturing, engineering, and service.

- Graduates will have the technical background in computer hardware and networking skills to function as a computer networking technologist.

- Graduates will exhibit an understanding of the necessity for personal integrity, ethical behavior, cultural awareness and lifelong learning.

Program of Study
Required:

Liberal Arts and Sciences .... (60 credits)
EGL 101 Composition I: College Writing (GE)...........................3
EGL 102 Composition II: Writing About Literature.....................3
Basic Communication (GE)..3
The Arts (GE)..3
Foreign Language (GE) 3
Social and Behavioral Science (GE)...6
American/Other World/Western Civilization History (GE)...........3
Humanities (GE) 3
Natural Science..7
PHY 135 College Physics I (GE) 4
PHY 136 College Physics II (GE) 4
MTH 110 Statistics (GE)..3
MTH 116 College Algebra..4
MTH 129 Pre Calculus...4
MTH 130 Calculus with Applications 4

Liberal Arts and Sciences Elective..3
Please refer to the General Education and Writing Intensive Requirement Sections of the College Catalog and consult with your advisor to ensure that graduation requirements are satisfied.
Software Technology Core..................................... (47 credits)
SET 101 Fundamentals of Software Technology........................3
EET 104 DC/AC Circuits 4
EET 105 Introduction to Digital Electronics 2
SET 105 Introduction to Symbolic and Logic Programming......3
SET 205 Introduction to Artificial Intelligence and
  Robotics Technology...3
SET 220 Internetworking 3
SET 230 Wireless Technology and Applications 3
SET 310 Software Applications for ERP Solutions....................3
SET 320 Software Applications in Supply Chain Management .3
SET 400 Network Planning and Implementation.......................3
SET 402 Software Applications in Statistical Analysis &
  Manufacturing Mgmt 3
SET 405 Software Applications in
  Manufacturing & Service Functions...3
SET 410W Senior Project 3
EET 440 Networking & Data Communications 4
EET 441 Advanced Networking...4
Related Courses .... (18 credits)
BCS 120 Foundations of Computer Programming I...................3
BCS 230 Foundations of Computer Programming II..................3
BCS 345 Java Programming 3
BCS 260 Database 3
BCS 301 Systems Analysis and Design......................................3
Elective..3
Can be selected from BCS, BUS, EET, MET, GPH, IND courses (by advisement only)
Total Credits:..125

Sport Management

Prof. Sarbjit Singh, Chair
Sport Management Department
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631-420-2786
School of Business

Bachelor of Science

The Sport Management program prepares students for ever-widening professional careers in the sport management industries. Our program provides students with fundamental and advanced-level courses taught by expert, experienced faculty in this dynamic and academically-rigorous subject area. In conjunction with advisors, students may tailor their degree program to best suit their career goals and professional development. Optional internships are available to sport management students during their third and fourth years of study.

Typical Employment Opportunities

Sports Marketing/Sales
Team/League Sponsorship, Ticketing
Professional Sports Organizations
Collegiate Sport Management and Marketing
Broadcasting/Communications
Sports Information Director/Media Relations
Event Management
Sport Agent
Director of Athletics
Associate Athletic Director/Compliance

Sport Management (BS) Program Outcomes:
- Graduates will have knowledge of the global and complex sports industry.
- Graduates will have knowledge of integration of the special nature of sports, management and marketing theory, and administrative principles.
- Graduates will be able to demonstrate competency in the management and leadership dimensions of sport.
- Graduates will be able to analyze and synthesize information/data and present their findings in a coherent manner.
- Graduates will be regular contributors to sport management and/or related fields.
- Graduates will exhibit an understanding of the necessity for personal integrity, ethical behavior, cultural awareness and lifelong learning.

Program of Study
Required:
Liberal Arts and Sciences .... (60-62 credits)
EGL 101 Composition I: College Writing (GE)............................3
EGL 102 Composition II: Writing About Literature.....................3
EGL 310 Technical Writing..3
The Arts (GE)..3
ECO 304 Sports Economics...3
Communications: SPE 130, SPE 202, SPE 330, **OR**
  SPE 331 (GE) 3
Foreign Language (GE)...3
Humanities (GE) 3
American/Other World/Western Civilization History (GE)...........3
MTH 110 Statistics (GE)..3
Natural Science (GE).. 6-8
ECO 156 Macroeconomics **OR**
  ECO 157 Microeconomics (GE)..3
PSY 101 Introduction to Psychology (GE)....................................3
SOC 122 Introduction to Sociology 3
PSY 304, PSY 311, PSY 330, **OR** PSY 331 3
SOC 309 Sport in Society..3
Liberal Arts & Sciences Electives..9
Please refer to the General Education and Writing Intensive Requirement Sections of the College Catalog and consult with your advisor to ensure that graduation requirements are satisfied.
Required: Business and Sport Management....... (51 credits)
BUS 101 Accounting I..3
BUS 102 Accounting II...3
BUS 109 Management Theories and Practices..........................3
BUS 202 Business Law I 3
BCS 102 Computer Concepts and Applications 3
SMT 110 Introduction to Sport Management 3
SMT 215 Sport Information Management....................................3
SMT 220 Media and Sport 3
SMT 225 Sport Marketing 3
SMT 304 Sport Finance...3
SMT 311 Sport Law 3
SMT 320 Athletic Administration..3
SMT 340 Sport Facility Management 3
SMT 370 Research in Sport Management....................................3
SMT 409 Strategic Sport Management 3
SMT 420 Current Topics in Sport **OR**
  SMT 440 Sport Management Internship I 3
SMT 485W Senior Seminar in Sport 3
Electives... (9 credits)
BUS/BCS/SMT/PED (200 level or higher) 6
PED...3
Total Credits:... 120-122

Telecommunications Technology

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631-420-2397
School of Engineering Technology

Bachelor of Science Degree
The Bachelor of Science degree program in Telecommunications Technology is designed to prepare students for careers in the telecommunications industry as well as to address the transfer and continuing education needs of associate degree graduates in Telecommunications or other related disciplines.

The program has a sound foundation of Mathematics and Physics, provides a variety of electives in the Arts, Sciences and the Humanities and is focused on applying current engineering technology methods to the solution of technical problems.

Program graduates, known as Telecommunications technologists, are well prepared for a wide range of industry positions in the areas of telecommunication systems and networks, transmission and switching systems, security in communication networks, optical and wireless communications, internet technologies, as well as other emerging telecommunication technologies.

Telecommunications Technology (BS) Program Outcomes:
- Graduates will be technically competent and will have the necessary skills to enter careers in areas such as the design, development, implementation and management of Telecommunications systems and networks.
- Graduates will be good communicators and will function effectively in teams.
- Graduates will have the knowledge and skills needed to be lifelong learners.
- Graduates will have an appreciation and understanding of the necessity for personal integrity, professional ethics and cultural awareness.

Program of Study
Required:
Liberal Arts and Sciences .... (61 credits)
EGL 101 Composition I: College Writing (GE)............................3
EGL 102 Composition II: Writing About Literature.....................3
EGL 310 Technical Writing..3
MTH 129 Precalculus with Applications (GE)..............................4
MTH 130 Calculus I with Applications (GE) 4
PHY 135 College Physics I (GE)..4
PHY 136 College Physics II (GE) 4
ECO 321 Engineering Economics (GE) 3
The Arts (GE)..3
Foreign Language (GE)...3
Humanities (GE) 3
American/Other World/Western Civilization History (GE)...........3
Liberal Arts and Sciences Electives*...21
Curriculum Courses ....(58 Credits)
BCS 120 Foundations of Computer Programming I...................3
BCS 215 UNIX Operating Systems 3
EET 104 DC/AC Circuits 4
EET 105 Introduction to Digital Electronics 2
EET 200 Electronic Devices and Circuits.....................................4
EET 223 Digital Electronics 4
EET 440 Data Communications and Networking 4

EET 441 Advanced Networking...4
TEL 215 Introduction to Telecommunication Systems 4
TEL 305 Communication Circuits & Systems 4
TEL 320 Wireless Communications 4
TEL 325 Optical Communications & Systems 4
TEL 420 Emerging Communication Technologies.....................3
TEL 450 Telecomm Senior Project Seminar 2
TEL 452 Telecommunications Senior Project 2
TEL 460 Mobile and Cellular Communication Systems 4
TEL 470 Telecomm Policy and Standards 3
Free Electives.. (6 credits)
Electives*..6
Total Credits:...125
*Elective courses are selected in consultation with the student's academic advisor in areas of student interest which also satisfy the following:
-15 credits must be in upper division Liberal Arts/Sciences courses
-6 credits must be in Mathematics selected from the following courses: MTH 110, MTH 236, MTH 245, MTH 322, MTH 360, MTH 390

Visual Communications:
Art & Graphic Design

Prof. Bill Steedle, Acting Chair
Visual Communications Department
Bill.Steedle@farmingdale.edu
631-420-2181
School of Business

The Visual Communications Department has a history of more than a half-century of innovation and excellence. Our design program offers a comprehensive and relevant educational experience that prepares students to be real-life creative problem solvers in traditional as well as emerging fields. Upon graduation, they demonstrate valuable professional skills and technological competencies vital for succeeding in an evolving creative environment.

The Visual Communications: Art & Graphic Design Baccalaureate Degree experience also includes opportunities that enable students to gain essential professional experience and participate beyond the classroom: two internship courses encourage students to pursue professional opportunities while the "in-house" agency courses allow students to work collaboratively and directly with clients. The Design Club and a student chapter of the AIGA, the premiere professional association for design, give our students an opportunity to participate in the industry as student learners. There are also industry-related field trips and special study abroad programs with trips that range from a few weeks to an entire semester.

The success of graduates in positions of responsibility in some of the best-known agencies, design teams, studios and corporations in the region and around the country illustrates the strength of our program. Many alumni have become thriving entrepreneurs by opening their own agencies and art-related businesses or as well as through active freelance careers.

For additional information, or to schedule an interview and tour of our facilities, please contact the Visual Communications Department.

Typical Employment Opportunities
Art Director
Brand Identity Designer
Creative Director
Editorial Designer
Graphic Designer
Interface Designer
Mobile Interface Designer
Package Designer
Photographer
Production Manager
Social Media Designer
User Experience Designer
Visual Content Developer
Web Designer & Developer
Web Developer

Visual Communications (BT) Program Outcomes:
- Graduates will receive a strong foundation in design, will have opportunities to explore, experiment, and master skillsets in traditional disciplines and digital techniques.
- Graduates will demonstrate diverse knowledge and skills required to perform professionally in an evolving creative work environment.
- Graduates will exhibit the knowledge necessary to understand design from an historical perspective, as well as current and future trends of industry.
- Graduates will have learned specific professional skills addressing résumé development, self-promotion, job search skills, industry procedures and practices and presentation techniques.
- Graduates will have created a portfolio of work, which will meet industry demands in order to successfully compete in the current job market.

Program of Study
Required:

Liberal Arts and Sciences .... (39 credits)
EGL 101 Composition I: College Writing (GE)............................3
ART 200 History of Graphic Design (GE)...................................3
ART 201 Art History – to Middle Ages (GE) 3
ART 202 Art History – to Present..3
ART 302 History of American Art **OR**
  ART 303 MesoAmerican Art History.......................................3
American History (GE) 3
Mathematics (GE) 3
Basic Communication (GE)..3
Natural Science (GE)...3
Western or Other World Civilizations (GE) 3
Social & Behavioral Science (GE)..3
Free Elective...3
Free Elective...3
Support Courses .... (3 credits)
BUS 131 Marketing Principles...3
Visual Communications Core .... (81 credits)
VIS 110 Drawing I..3
VIS 112 Two-Dimensional Design..3
VIS 114 Color...3
VIS 115 Three-Dimensional Design...3
VIS 116 Digital Media and Methods...3
VIS 120 Drawing II...3
VIS 122 Typography I...3
VIS 222 Graphic Design I 3
VIS 225 Photography I...3
VIS 226 Design Production I 3
VIS 228 Four-Dimensional Design...3
VIS 232 Graphic Design II 3

VIS 234 Design Production II 3
VIS 236 Typography II..3
VIS 238 Illustration for Designers 3
VIS 250 Photography II 3
VIS 332 Graphic Design III 3
VIS 334 Design Production III 3
VIS 336 Advertising I 3
VIS 340 Industry Preparation 3
VIS 346 Advertising II 3
VIS 414 Interaction Design...3
VIS 416W Senior Project I 3
VIS 418 Portfolio 3
VIS 426 Senior Project II..3
VIS/IxD/BUS/BCS Electives 6
Total Credits:...123
Transfer credit is granted at the discretion of the faculty based on grades and a portfolio assessment. All students entering the program, including transfer students, will be required to take VIS 116 Digital Media & Methods.

Associate Degrees

Automotive Technology

Dr. Mohamad Zoghi, Acting Chair
Automotive Technology Department
Mohamad.Zoghi@farmingdale.edu
631-794-6292
School of Engineering Technology

Associate in Applied Science Degree
The automotive industry provides employment in the experimental development of gasoline, diesel and turbine powered vehicles and equipment, and their sales and service. Other mechanical, electrical, and fluid power oriented industries and operations provide similar employment.

Courses are designed to prepare the technician graduate for direct entry into automotive and other industries or consumer oriented employment. Many past graduates have continued their studies in a Bachelor's Degree program in Automotive Management, Engineering Technology, Industrial Technology, Engineering and other related fields.

Each student is assisted in selecting and achieving his/her goal through guidance provided by a faculty member who has a broad background of experience and technical preparation, and a genuine interest in the student's success.

Typical Employment Opportunities:
Automotive Diagnostician
Equipment Designer and Installer
Warranty Processor
Research and Development Technician
Writer-Technical Literature
Dealership: Parts, Sales and Service
Service Instructor
Insurance Adjuster

Automotive Technology (AAS) Program Outcomes:
- Graduates will have the technical skills, knowledge and ability to enter their chosen Automotive Technology discipline.
- Graduates will have good written and oral communication skills.
- Graduates will develop and be able to maintain the necessary knowledge to operate within all areas of land, sea and air (ground support) vehicles, equipment, facilities, service and operations.

This program is accredited by the Association of Technology, Management and Applied Engineering, 1390 Eisenhower Place, Ann Harbor, MI 48108, 734-677-0720 www.atmae.org

Program of Study
Required:
Liberal Arts and Sciences .... (28 credits)
EGL 101 Composition I: College Writing (GE)........................3
EGL 102 Composition II: Writing About Literature...................3
Social & Behavioral Science (GE)..3
History Elective 3
MTH 129 Precalculus with Applications (GE)..........................4
MTH 130 Calculus I with Applications (GE) 4
PHY 135 College Physics (GE) 4
PHY 136 College Physics II (GE) 4
Please refer to the General Education and Writing-Intensive Requirement Sections of the College Catalog and consult with your advisor to ensure that graduation requirements are satisfied.
Support Courses .... (3 credits)
MET 104 Comp Aided Drafting & Design (CADD) 3
Required: Automotive .... (33 credits)
AET 101 Internal Combustion Engine Theory and Servicing 3
AET 106 Suspension and Control Systems 3
AET 107 Manual Drivetrains and Driveaxles 3
AET 150 Automotive Computer Applications............................2
AET 208 Automotive Electrical Applications.............................3
AET 215 Diesel Engines...3
AET 217 Applied Mechanics and Engineering Materials...........3
AET 218 Applied Manufacturing Processes 2
AET 255 Computerized Engine Controls 3
AET 257 Automatic Transmissions...3
Technical Elective
(AET, EET, IND, MET, BUS)..5
Total Credits:...64

Criminal Justice - Law Enforcement

Dr. LaNina N. Cooke, Chair
Criminal Justice Department
LaNina.Cooke@farmingdale.edu
631-420-2692
School of Arts & Sciences

Associate in Science Degree
The goal of this program is to prepare students to be real-life problem solvers in the field of law enforcement. The program is designed to develop procedural competencies and broad-based knowledge in students who wish to pursue careers in Criminal Justice as well as for in-service personnel who seek career advancement in law enforcement. The Department offers a full-time day program and a part-time evening program. Students have the opportunity to interact with faculty who represent a wide spectrum of Criminal Justice experience, expertise and scholarly achievement including assistance to the National Institute of Justice and numerous state and local agencies, task forces and professional and learned societies.

We remain faithful to our tradition of providing students with a broad based educational experience by drawing from the deep reservoirs of knowledge of the arts and sciences. Our associate degree program provides students with the educational credentials necessary for many law enforcement careers, and graduates who wish to continue their education will find that the

AS degree enables them to transfer to a wide variety of related upper division programs.

Typical Employment Opportunities
Federal Government
U.S. Armed Forces Police
State Government
Local Government
Business and Industry Security
Enforcement Agencies
County, City, Town, Village, Law
Insurance Claim Investigation

Criminal Justice – Law Enforcement Program Outcomes:
- Graduates will have knowledge of the complexities involved in law enforcement and its administration.
- Graduates will have an understanding of investigative procedures and evidence management in police operations and will be competent in the administration of chain of custody proceeds that emphasize the courts.
- Graduates will have an understanding of sources of criminal activity and behavior.
- Graduates will gain understanding of criminal law and procedure, and its relationship to crime prevention and detection.
- Graduates will have an appreciation and understanding of the necessity for personal integrity, professional ethics, and cultural awareness.

Program of Study
Required:
Liberal Arts and Sciences .... (37 credits)
EGL 101 Comp I: College Writing (GE) 3
Humanities Elective (GE) 3
The Arts Elective (GE) 3
MTH 110 Statistics (GE) 3
Natural Science course with a lab (GE) 4
Two History courses from two different
  History General Education areas 6
PSY 101 Introduction to Psychology (GE) 3
PSY 315 Abnormal Psychology 3
SOC 122 Introduction to Sociology (GE) 3
One 200-level Sociology course from the list below: 3
SOC 225 Sociology of Marriage & Family (GE)
SOC 229 Minorities in American Society (GE)
SOC 231 Promises & Challenges of Multiculturalism (GE)
Free Elective 3
Please refer to the General Education and Writing-Intensive requirement sections of the College Catalog and consult with your advisor to ensure that graduation requirements are satisfied.
Required: Criminal Justice .... (27 credits)
CRJ 100 Introduction to Criminal Justice 3
CRJ 101 Law Enforcement/Comm Relations 3
CRJ 102 Juvenile Delinquency 3
CRJ 115 Computer Forensics 3
CRJ 200W Criminal Investigation 3
CRJ 203 Criminology 3
CRJ 204 Criminal Law 3
CRJ 205 Criminal Procedure Law 3
CRJ 211 Law Enforcement Administration 3
Total Credits: 64
Credits may be granted for successfully completed Municipal Police Training Council Basic or Intermediate Schools.

Dental Hygiene - Entry Level
Dr. Maureen Tsokris, Chair
Dental Hygiene Department
Maureen.Tsokris@farmingdale.edu
631-420-2060
Theresa Patnode Santmann School of Health Sciences

Associate in Applied Science
The dental hygiene program prepares students for licensure and entry into the profession of dental hygiene, as well as certification in the administration of local infiltration anesthesia/nitrous oxide analgesia. The program in dental hygiene is accredited by the Commission on Dental Accreditation and be granted the accreditation status of "Approval without Reporting Requirements." The program will be reviewed again at the next scheduled site visit in 2022. The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at (312) 440-4653 or at 211 East Chicago Avenue, Chicago, IL 60611-2678. The Commission's web address is: www.ada.org/coda. Graduates receive an Associate in Applied Science degree and are eligible to sit for the National Board Examination in Dental Hygiene, as well as State and Regional Practical Board Examinations for dental hygienists.

As the need for dental hygiene care continues to grow in the Nation, many new and varied opportunities are available for graduates in a wide array of work settings. Although the clinical role is most closely associated with dental hygiene, it is only one of six roles officially designated for the hygienist, which include educator, researcher, administrator, change agent, and consumer advocate. Although special emphasis is placed on educating the clinical hygienist, all the roles are incorporated into the theoretical framework and practical experiences of the curriculum. The program provides general education, as well as specialized courses in the biomedical and oral sciences.

Students perform a variety of comprehensive services at the College's technologically advanced Dental Hygiene Care Center. Among these services are thorough assessment of oral conditions, non-surgical periodontal therapy (scaling and root planing of teeth), exposing, processing and interpreting oral x-rays, patient education and nutritional counseling.

The Dental Hygiene Care Center is in compliance with all Occupational and Safety Health Administration (OSHA)/Infection Control regulations regarding infectious diseases and bloodborne pathogens.

As a condition for acceptance into the dental hygiene program all applicants are required to submit evidence of satisfactory health. Evidence of immunization and adequate titers for measles, mumps, rubella and varicella must be provided. In addition, matriculated students will be required to take a yearly Mantoux test for tuberculosis. Students are strongly urged to submit evidence of immunization and titer for Hepatitis B. It is recommended that students who test negatively for Hepatitis B receive the appropriate vaccine. Students who decline this recommendation will be required to sign a waiver of responsibility. In order for Health Sciences students to be sent to clinical sites for educational training, agencies must be provided with information regarding student health status, including immunizations. Without documented immunity/vaccination, including MMR, varicella, Hepatitis B acknowledgement, Tdap, influenza and PPD, students will be unable to attend clinical rotations and receive the educational training necessary to meet program, licensure, and/or

certification requirements. All students are required to meet New York State Hospital Code requirements and agency requirements prior to admission to clinical sites. All Dental Hygiene students are required to participate in the group liability policy, provided by the college, which will afford malpractice coverage during the time enrolled in the Dental Hygiene curriculum.

New York State Dental Hygiene licensure requires the applicant be of good moral character. An applicant for licensure who has been convicted of a crime, or has committed an act which raises a reasonable question as to their moral character, will be subject to review.

Typical Employment Opportunities

Private Dental Offices
Geriatric Facilities
Public Health Agencies
Research Laboratories
School Health Services
Pharmaceutical Corporations
Private Care Center
Dental Supply Companies
Hospitals
Armed Forces
Insurance Companies
Managed Care Facilities

Dental Hygiene (AAS) Program Outcomes:

■ Graduates will have the knowledge and skills necessary to provide comprehensive dental hygiene care to the general population including the adolescent, geriatric and special needs patient.

■ Graduates will develop an expertise in the area of health promotion and disease prevention through assessment, planning, implementation and evaluation of community based oral health programs and effective interaction with diverse population groups.

■ Graduates will develop a sense of professionalism as health care providers including self assessment, recognition and management of ethical, legal and regulatory issues, and evaluation of scientific literature as it relates to the profession of dental hygiene.

Special Opportunities

As a student in the Dental Hygiene Associate in Applied Science Degree Program you are eligible to participate in the Student American Dental Hygienists' Association (SADHA) which promotes student leadership through community outreach, lunch and learn programs and various campus activities.

Dental Hygiene Admission Requirements from High School:

High School Diploma or GED
Integrated Algebra and Geometry
Laboratory Biology
Laboratory Chemistry

* In addition to the high school requirements, applicants not applying directly from high school are required to complete the following courses prior to admission:

■ EGL 101
■ BIO 166
■ BIO 220

(Students can matriculate into the Health Studies certificate program or attend as a non-matriculated student to complete prerequisite(s) requirements.).

Program of Study
Required:
Liberal Arts and Sciences .... (20 credits)
*BIO 166 Anatomy & Physiology (GE) 4
*BIO 220 Medical Microbiology...4
*EGL 101 Composition I: College Writing (GE) 3
PSY 101 Introduction to Psychology (GE)..................................3
SOC 122 Introduction to Sociology **OR** SOC 228 Society and Health (GE)...3
SPE 202 Interpersonal Communications (GE) 3

Please refer to the General Education and Writing Intensive Requirement sections in the front of the College Catalog and consult with your advisor to ensure that requirements are satisfied.

Required: Dental Hygiene .... (50 credits)
DEN 102 Dental Materials & Expanded Functions 3
DEN 105 Dental & Oral Anatomy...3
DEN 106 Oral Radiology I...3
DEN 108 Oral Histology & Embryology.......................................2
DEN 110 Preventive Oral Health Concepts I...............................2
DEN 115 Clinical Dental Hygiene I...3
DEN 126 Periodontology 2
DEN 201 Pain Management 2
DEN 203 Principles of Nutrition for Oral Health Professionals...2
DEN 205 Oral Pathology...3
DEN 207 Oral Radiology II..1
DEN 212 Pharmacology..2
DEN 220 Preventive Oral Health Concepts II..............................2
DEN 221w Community Oral Health I 2
DEN 222 Community Oral Health II...2
DEN 225 Clinical Dental Hygiene II 3
DEN 230 Preventive Oral Health Concepts III.............................2
DEN 235 Clinical Dental Hygiene III 4
DEN 240 Dental Practice Management, Ethics & Jurisprudence2
DEN 245 Clinical Dental Hygiene IV...5
Total Credits:..70

Once a student has been admitted to DEN 105, courses must be completed in semester sequence, without interruption. Any student who misses a semester will not be permitted to continue in the program until approval has been obtained (if granted) from the Admissions and Academic Standards Committee of the Dental Hygiene Department. Students who have been given permission to continue in the program will be required to take the skills refresher course DEN 015. Procedural information may be obtained from the Department Chair of Dental Hygiene in Gleeson Hall.

Notes:

The nature of this program will expose students to bodily fluids and blood borne pathogens. The Dental Hygiene Department adheres strictly to the Occupational and Safety Health Administration (OSHA) Guidelines for infectious disease control.

Students must be certified in basic life support procedures prior to entering the clinical sequence.

Students are required to provide their own transportation to off campus field experiences. For all field experiences, student dress must conform with field agency protocol.

Students are required to purchase their own instruments and specific clinically related supplies.

A grade of "C" (2.0) or better must be maintained in all courses with a DEN, BIO or CHM prefix. A failure in a clinically related area constitutes withdrawal from the Dental Hygiene curriculum.

Students are also required to provide their own patients (approximately 8) for clinic during the second semester of the program.

A TOEFL (Test of English as a Foreign Language) Examination with a minimum score of 550 (paper), 213 (computer), or 79 (internet) will be required as a condition for entrance into the Dental Hygiene program for:

a) applicants who are foreign born high school seniors and have had ESL (English as a Second Language) courses in high school or

b) applicants with secondary credentials from a foreign country whose language of instruction was not English, regardless of any coursework completed in the United States.

General Horticulture

Dr. Jonathan M. Lehrer, Chair
Urban Horticulture and Design Department
Jonathan.Lehrer@farmingdale.edu
631-420-2711
School of Business

Associate in Applied Science
This program is designed to provide a generalized study of horticulture requiring basic introductory courses while offering a wide range of electives so that the students can develop their desired areas of expertise.

Students receive training in plant identification, botany, entomology, soils, and horticulture. Students may elect courses such as: greenhouse management, plant propagation, landscape drafting, landscape construction, commercial floral design and arboriculture. The laboratory hours provide students with valuable "hands-on" experiences in our extensive greenhouses and Teaching Gardens.

Professional development opportunities are varied since the program offers students three horticulture electives. This allows students to choose their own areas of specialization within the program.

Typical Employment Opportunities
Floral Designer
Retail Florist
Flower Shop Manager
Sales Manager
Interior Landscape Designer
Commercial Grower
Interior Horticultural Service Technician
Wholesale Distributor
Garden Center Salesperson/Manager
Arboretum Technician
Nursery Salesperson/Manager
Wholesale Nursery Manager
Municipal & Urban Forestry Manager
Commercial or Utility Arborist
Landscape Garden Maintenance
Public Garden Employment

General Horticulture (AAS) Program Outcomes:
■ Graduates will receive a strong foundation in science and master skillsets utilizing traditional and cutting edge digital techniques.

■ Graduates will demonstrate diverse knowledge and skills required to perform professionally in today's complex multi-disciplinary environment.

■ Graduates will exhibit the knowledge necessary to understand horticulture from an historical perspective, as well as current and future trends of industry.

Program of Study
Required:
Liberal Arts and Sciences ....(23-24 credits)
EGL 101 Composition I: College Writing.....................................3
EGL 102 Composition II: Writing About Literature......................3
BIO 192 Botany...4
BIO 198 Entomology **OR**
BIO 290 Entomology II 3-4
Natural Science/Mathematics 3-4
General Education Electives...6
Support Courses .... (3 credits)
BUS Business Elective **OR**
BCS 102 Computer Concepts and Applications 3
Required: Horticulture .... (37 credits)
HOR 103 Herbaceous Plants I 3
HOR 110 Horticulture I...3
HOR 111 Horticulture II Growth and
    Development of Cultivated Plants..3
HOR 112 Soils: The Foundation of Life 3
HOR 127 Horticulture Seminar..1
HOR 204 Herbaceous Plants II 3
HOR 211 Woody Plants I 3
HOR 212 Woody Plants II 3
HOR 218 Indoor Plants...3
HOR 238 Turfgrass Culture 3
HOR Horticulture Electives (in non-required HOR).....................9
Total Credits:..62-64

Landscape Development

Dr. Jonathan M. Lehrer, Chair
Urban Horticulture and Design Department
Jonathan.Lehrer@farmingdale.edu
631-420-2711
School of Business

Associate in Applied Science
This program is intended to prepare students for the professional world of landscape contracting and landscape design. The Landscape Development program trains students in: landscape drafting, landscape graphics and design, landscape plans, planting plans, landscape construction, landscape surveying, computer-aided design, plant materials, and professional landscape practices.

Graduates are trained landscape horticulturists prepared to begin a career in the landscape contracting profession.

Typical Employment Opportunities
Landscape Designer
Landscape Technician
Landscape Consultant
Landscape Inspector
Landscape Contractor
Landscape Maintenance Proprietor
Landscape Construction Supervisor
Landscape Planting Supervisor

Landscape Development (AAS) Program Outcomes:
- Graduates will receive a strong foundation in design, and master skillsets utilizing traditional and cutting edge digital techniques.
- Graduates will demonstrate diverse knowledge and skills required to perform professionally in today's design environment.
- Graduates will exhibit the knowledge necessary to understand design from an historical perspective, as well as current and future trends of industry.

Program of Study
Required:
Liberal Arts and Sciences...............................(23-24 credits)
EGL 101 Composition I: College Writing.....................................3
EGL 102 Composition II: Writing About Literature....................3
Social Science/Humanities...6
Bl0 192 Botany..4
BIO 198 Entomology **OR**
BIO 290 Entomology II... 3-4
Mathematics (by Advisement) 3-4
General Education Electives...6
Required: Horticulture.. (40 credits)
HOR 103 Herbaceous Plants I **OR**
HOR 204 Herbaceous Plants II 3
HOR 110 Horticulture I..3
HOR 111 Horticulture II Growth and
  Development of Cultivated Plants..3
HOR 112 Soils: The Foundation of Life 3
HOR 127 Horticulture Seminar..1
HOR 131 Landscape Drafting I 3
HOR 133 Landscape Drafting II 3
HOR 207 Landscape Plans I 3
HOR 211 Woody Plants I 3
HOR 212 Woody Plants II 3
HOR 219 Landscape Construction 3
HOR 220 Landscape Plans II 3
HOR 238 Turfgrass Culture 3
HOR 371 Landscape CAD I..3
Total Credits:..62-64

Liberal Arts and Sciences

Dr. Marla Johnston, Acting Chair
Liberal Arts and Sciences Department
Marla.Johnston@farmingdale.edu
631-420-2656
School of Arts & Sciences

Associate in Arts Degree

The Liberal Arts and Sciences Department provides its students with a broad-based liberal arts education which prepares them for junior level study in a variety of majors in the Liberal Arts and Sciences such as communications, education, English, history, law, psychology, sociology, social work, medicine, the applied health professions, biology, and all the physical sciences. Liberal Arts and Sciences students are required to fulfill all ten General Education requirements.

A broad range of elective courses in the Liberal Arts and Sciences allows students who are undecided about their majors to experiment with possible choices. Moreover, students who have majors or careers in mind may test those choices by taking elective courses that are prerequisites for their chosen majors.

Each student's schedule of courses is arranged after careful consultation with a program advisor every semester.

Liberal Arts and Sciences (AA) Program Outcomes:
- Graduates will develop the broad-based knowledge and skills necessary for upper division study and success in a variety of career choices.
- Graduates will develop a firm appreciation of culture, ethics, aesthetics, cultural awareness, and lifelong learning.

Program of Study
Required:
General Education Requirements........................ (31 credits)
EGL 101 Composition I: College Writing (GE)............................3
Humanities (GE) 3
The Arts (GE)...3
American/Other World/Western Civilization History (GE)...........6
Mathematics (GE) 6
Foreign Language - Level II (GE)..3
Social and Behavioral Science (GE)...3
Natural Science (GE)* 4
Consult with your advisor to ensure that the general education graduation requirements are satisfied and are appropriate to your goals.
Program Required Courses .... (31 credits)
EGL 102 Composition II: Writing About Literature.....................3
SPE 130 Public Speaking 3
Lab Science elective* 4
Arts or Humanities elective**..3
Social Science elective..3
Arts and Sciences electives***...9
General electives*** 6
Total Credits:..62
*Students must complete 8 credits of lab sciences and may choose a three credit lecture course in the physical sciences as long as they also complete a 1 credit physical science laboratory.
**Courses in this category must be from the School of Arts and Sciences only.
***Courses chosen in consultation with faculty advisors and are based on student interests and needs.

Mechanical Engineering Technology

Dr. Hazem Tawfik, Co-Chair
Hazem.Tawfik@farmingdale.edu
Dr. Jeff Hung, Co-Chair
Jeff.Hung@farmingdale.edu
Mechanical Engineering Technology Department
631-420-2046
School of Engineering Technology

Associate in Applied Science Degree
This program is taught in well-equipped laboratories, utilizing the latest high speed PC computers to write analysis and design programs, construct drawings, and machine space age materials for commercial and industrial applications.

The mechanical engineering technology field is rich with opportunities for students with a broad range of interests, motivations and abilities. Graduates are well prepared for positions in four areas: Manufacturing & Production – including tool design, process specification, computerized numerical (CNC), quality control, and materials handling; Mechanical Design – including computer aided design and drafting (CADD), design specification and manufacturability; Material Science – including material specification, corrosion, corrosion control and failure analysis. Graduates are employed as technicians in companies which manufacture equipment used in hospitals, dental offices, computers, automobiles, aircraft, ships,

buildings, highways, electronics, heating and air conditioning, prosthetics, physical therapy and bar coding. The power generation industry and heating, ventilating and air conditioning industries also employ our graduates as technicians.

All theory and laboratory courses are based on studies made of graduates in industry, advice from our Industrial Advisory Committee and accreditation requirement of the Engineering Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ETAC/ABET). Graduates are automatically accepted into our Bachelor programs in Manufacturing Engineering Technology, Facility Management Technology or Mechanical Engineering Technology.

Typical Employment Opportunities
Tool Designer Cad Operator
CNC Programmer
Quality Control Specialist
Materials Technician
NC Programmer
Test Technician
Computer Aided Designer
HVAC Technician
Utility Co. Technician

Mechanical Engineering Technology (AAS)
Program Outcomes:
- Graduates will have the knowledge and skills to enter careers in the design, installation, manufacturing, testing, operating, evaluation, technical sales, or maintenance of mechanical systems.

- Graduates will develop and maintain the knowledge and skills needed to identify, formulate and solve problems throughout their careers and will be able to enter the B.S. degree programs in Mechanical and Manufacturing Engineering Technology.

- Graduates will exhibit an understanding of the necessity for personal integrity, ethical behavior, cultural awareness and lifelong learning.

Program of Study
Required:
Liberal Arts and Sciences .... (31 credits)
EGL 101 Composition I: College Writing (GE)............................3
EGL 102 Composition II: Writing About Literature......................3
Basic Communication (GE)...3
Social and Behavioral Science (GE)...6
MTH 129 Precalculus with Applications (GE)..............................4
MTH 130 Calculus I with Applications (GE) 4
PHY 135 College Physics I (GE) 4
PHY 136 College Physics II (GE) 4
Required: Mechanical Engineering Technology... (33 credits)
MET 104 Computer Aided Drafting and Design (CADD) 3
MET 109 Computer Programming and Applications..................2
MET 117 Manufacturing Processes.......................................2
MET 127 Advanced Manufacturing Processes...........................2
MET 201 Statics..3
MET 205W Material Science 3
MET 206 Strength of Materials..3
MET 207 Tool Design...3
MET 212 Applied Fluid Mechanics.......................................3
MET 230 Electrical Principles..3
MET 252 Quality Control 3
Technical Elective* 3
Total Credits:...64

*Technical Elective must be selected from MET and IND courses.
Part-Time Program
A minimum of 64 credits is required.

Certificate Programs

Accounting
Dr. Nanda Viswanathan, Chair
Business Management Department
Nanda.Viswanathan@farmingdale.edu
631-420-2015
School of Business

BUS 101 Accounting I...3
BUS 102 Accounting II..3
BUS 109 Management Theory and Practices and Practices.....3
BUS 111 Introduction to Business...3
BUS 201 Corporate Finance..3
BUS 220 Financial Information Systems....................................3
BUS 271 Intermediate Accounting I 3
BUS 272 Intermediate Accounting II 3
BUS 273 Cost Accounting...3
Three additional courses (9 credits) in Business
Total Credits..36
To review the Gainful Employment Disclosures for certificate programs please visit
www.farmingdale.edu/academics/gedt/acc-gedt.html

Advanced Programming Certificate
Dr. Jill O'Sullivan, Chair
Computer Systems Department
Jill.Osullivan@farmingdale.edu
631-420-2190
School of Business

This certificate is designed to enhance the skills of those who are currently programmers, or those with an advanced degree who are seeking to amplify their skills in the newer computer technologies. The purpose of this certificate is to provide the education necessary to be competitive in the current computer market. The required and elective courses relate to newer software and technologies rather than the traditional courses in BCS, thereby providing augmentation for the students with a degree as well as those who have received "on-the-job" training in this discipline.

Required:
BCS 120 Foundations of Computer Programming I...................3
BCS 160 Computers, Society, and Technology 3
BCS 230 Foundations of Computer Programming II.................3
BCS 215 UNIX Operating System 3
BCS 260 Introduction to Database Systems 3
BCS 315 UNIX Operating System II 3
BCS 316 Perl Programming...3
BCS 345 JAVA Programming 3
BCS 360 Programming in SQL..3
BCS 370 Data Structures 3
BCS 410 Computer Architecture or BCS 415 – Operating Systems Internals and Design..3
Total Credits:...33

Computer Information Systems Certificate

Dr. Jill O'Sullivan, Chair
Computer Systems Department
Jill.Osullivan@farmingdale.edu
631-420-2190
School of Business

A Certificate program in Computer Information Systems is available for those students who do not wish to work toward a degree. The following is a list of courses which a student must take in order to be eligible for the Certificate. Students with experience in the computer field may be excused from specific required courses, but will have to take replacement courses in their stead.

Required:

BCS 120 Foundations of Computer Programming I...................3
BCS 160 Computers, Society, and Technology 3
BCS 215 UNIX Operating System 3
BCS 230 Foundations of Computer Programming II.................3
BCS 260 Introduction to Database Systems 3
BCS 262 Data Communications 3
BCS 300 Management Information Systems..............................3
BCS 301 Systems Analysis and Design....................................3
BCS/BUS elective..3
BUS 109 Management Theories and Practices.........................3
BUS 101 Accounting I..3
Total Credits:...33

To review the Gainful Employment Disclosures for certificate programs please visit
www.farmingdale.edu/academics/gedt/cis-gedt.html

Computer Systems Technology Certificate

Dr. Jill O'Sullivan, Chair
Computer Systems Department
Jill.Osullivan@farmingdale.edu
631-420-2190
School of Business

A Certificate program in Computer Programming is available for those students who do not wish to work toward a degree. The following is a list of courses which a student must take in order to be eligible for the Certificate. Students with experience in the computer field may be excused from specific required courses ut will have to take replacement courses in their stead.

Required:

BCS 120 Foundations of Computer Programming I...................3
BCS 160 Computers, Society, and Technology 3
BCS 230 Foundations of Computer Programming II.................3
BCS 215 UNIX Operating System 3
BCS 260 Introduction to Database Systems 3
BCS 262 Data Communications 3
BCS 301 Systems Analysis and Design....................................3
BCS elective**..3
BCS elective**..3
BCS elective**..3
Total Credits:...30

Notes: ** BCS electives are selected in consultation with a faculty advisor.

To review the Gainful Employment Disclosures for certificate programs please visit
www.farmingdale.edu/academics/gedt/cst-gedt.html

Health Studies Certificate

Dr. Maureen Tsokris, Chair
Dental Hygiene Department
Maureen.Tsokris@farmingdale.edu
631-420-2060
Theresa Patnode Santmann School of Health Sciences

The Health Studies Certificate Program is designed to provide a path that will enable students to meet entrance requirements to a degree program in a health care curriculum: Dental Hygiene. Students will work closely with their faculty advisors to ensure the required program of study will meet individual educational needs. Upon completion of this program, students may apply for acceptance to the Dental Hygiene curriculum.

To review the Gainful Employment Disclosures for certificate programs please visit
www.farmingdale.edu/academics/gedt

Required Courses for Certificate Program

Liberal Arts and Sciences ....(21 credits)
BIO*..4
BIO*..4
CHM*..4
EGL 101 Composition I: College Writing...................................3
EGL 102 Composition II: Writing About Literature....................3
PSY 101 Introduction to Psychology...3
Support Courses ....(6 credits)
BCS 102 Computer Concepts and Applications 3
HST 101 Current Issues in Health 3
Total Required Credits:..27
Notes:
1. *Based on curriculum advisement.

International Business Certificate

Dr. Nanda Viswanathan, Chair
Business Management Department
Nanda.Viswanathan@farmingdale.edu
631-420-2015
School of Business

BUS 280 International Business...3
BUS 320 International Marketing **OR**
BUS 322 International Management 3
ECO 340 International Trade 3
SOC 231 Multiculturalism or a Modern Language
 for Business..3
Total Credits...12

Management

Dr. Nanda Viswanathan, Chair
Business Mangement Department
Nanda.Viswanathan@farmingdale.edu
631-420-2015
School of Business

BUS 101 Accounting I...3
BUS 102 Accounting II..3
BUS 109 Management Theory and Practices 3
BUS 111 Introduction to Business...3
BUS 131 Marketing Principles..3
BUS 141 Business Communications...3
BUS 201 Corporate Finance...3
BUS 266 Personnel/Human Resources Management 3
Four additional courses (12 credits) in Business 3
Total Credits..36
To review the Gainful Employment Disclosures for certificate programs please visit
www.farmingdale.edu/academics/gedt/mgt-gedt.html

Manufacturing Methods

Dr. Hazem Tawfik, Co-Chair
Hazem.Tawfik@farmingdale.edu
Dr. Jeff Hung, Co-Chair
Jeff.Hung@farmingdale.edu
Mechanical Engineering Technology Department
631-420-2046
School of Engineering Technology

This Certificate program is offered by the Mechanical Engineering Technology Department. The program is approved by the State Education Department and requires the completion of 30 credits of the required courses. Applicants should contact a Faculty Advisor or the Department Chair for more information and to learn about the prerequisites for the required courses.

Required Courses for Certificate Program
GPH 103 Technical Drafting 1
GPH 104 Introduction to Computer Graphics 1
MET 109 Computer Programming and Applications...................2
MET 117 Manufacturing Process 2
MET 127 Advanced Manufacturing Process...............................2
MET 205W Material Science 3
MET 207 Tool Design..3
MET 211 Advanced Computer Graphics 1
MET 230 Electrical Principles...3
MET 251 Numerical Control 3
MET 252 Quality Control 3
MET 351 Computer Aided Manufacturing 3
MET 417 Modern Manufacturing Systems.................................3
Total Credits..30
To review the Gainful Employment Disclosures for certificate programs please visit
www.farmingdale.edu/academics/gedt

Marketing

Dr. Nanda Viswanathan, Chair
Business Management Department
Nanda.Viswanathan@farmingdale.edu
631-420-2015
School of Business

BUS 109 Management Theory 3
BUS 111 Introduction to Business...3
BUS 131 Marketing Principles..3
BUS 141 Business Communications...3
BUS 253 Industrial Marketing..3
BUS 254 Salesmanship 3
BUS 257 Advertising Principles..3
Five additional courses (15 credits) in Business
Total Credits..36

Note: Students planning to pursue a degree program after completing the certificate program are urged to select elective courses applicable to the degree program.

To review the Gainful Employment Disclosures for certificate programs please visit
www.farmingdale.edu/academics/gedt/mkt-gedt.html

Ornamental Horticulture Certificate

Dr. Jonathan M. Lehrer, Chair
Urban Horticulture and Design Department
Jonathan.Lehrer@farmingdale.edu
631-420-2711
School of Business

Certificate Program
The objective of the Certificate program is to develop and prepare individuals for careers in horticulture. Openings exist for technically-oriented specialists as sales representatives, managers, supervisors, and production managers in turf, nursery, parks, florists, landscaping, and closely related fields.

Liberal Arts and Sciences (4 credits)
BIO 192 Botany..4
Required: Horticulture
HOR 103 Herbaceous Plants I 3
HOR 110 Horticulture I..3
HOR 111 Horticulture II Growth and Development
  of Cultivated Plants 3
HOR 112 Soils: The Foundation of Life 3
HOR 218 Indoor Plants...3
HOR Horticulture Electives*...3
Total Credits:..34

*Students are encouraged to speak with an advisor in the Horticulture Department to select electives that serve their personal and professional goals.

To review the Gainful Employment Disclosures for certificate programs please visit
www.farmingdale.edu/academics/gedt/orn-gedt.html

Sciences for the Health Professions Certificate

Amanda Lavery, Curriculum Coordinator
Amanda.Lavery@farmingdale.edu
631-420-2530

The Certificate in Sciences for the Health Professions is a post-baccalaureate science program designed to meet the needs of students with bachelor's degrees in non-science fields who seek a career change into the health professions, but lack some or all of the necessary science and mathematics background. It thus offers an affordable means for academically qualified students to prepare themselves for admission into professional programs in this field. Acceptance into this Certificate program requires an earned bachelor's degree with a GPA of at least 3.0.

Required .... (16 credits)
BIO 130 Biological Principles I 4
BIO 131 Biological Principles II 4
CHM 152 General Chemistry Principles I 4
CHM 153 General Chemistry Principles II 4
Electives (18 credits selected from the following)
BIO 125 Nutrition 3
BIO 170 Human Anatomy & Physiology I...................................4
BIO 171 Human Anatomy & Physiology II..................................4
BIO 220 Medical Microbiology...4
BIO 270 Anatomy & Physiology I...4
BIO 271 Anatomy & Physiology II..4
BIO 343 Principles of Genetics 3
BIO 380 Pre-professional Experience I.......................................3
BIO 381 Pre-professional Experience II......................................3
CHM 260 Fundamentals of Organic Chemistry.........................4
CHM 270 Organic Chemistry I 5
CHM 271 Organic Chemistry II 5
CHM 380 Biochemistry 4
CHM 381 Advanced Biochemistry 3
MTH 129 Precalculus with Applications......................................4
MTH 130 Calculus with Applications 4
MTH 150 Calculus I..4
MTH 151 Calculus II...4
PHY 135 College Physics I 4
PHY 136 College Physics II 4
PHY 143 General Physics I..4
PHY 144 General Physics II...4
Total Credits:..34

To review the Gainful Employment Disclosures for certificate programs please visit
www.farmingdale.edu/academics/gedt/shp-gedt.html

Minor Programs

Air Force ROTC Minor

Lieutenant Colonel Francisco Perez De Armas, USAF
Professor of Aerospace
fperezdearmas01@manhattan.edu
Roosevelt Hall, Room 122
School of Engineering Technology

The minor in Air Force ROTC is offered to any Farmingdale baccalaureate student completing the courses of study listed below. The minor not only prepares cadets for active duty service but provides any student the opportunity to study one of our country's major instruments of power, the United States Military. In addition to studying Air Force organizations, missions, and operations, the student will gain a broad perspective of the military in general by studying the history of all Department of Defense Services and completing a leadership and/or business course emphasizing the key elements of leadership required of an Air Force Officer
Required:
AFR 101 The Foundations of the U.S. Air Force I.......................1
AFR 102 The Foundations of the U.S. Air Force II.....................1
AFR 201 The Evolution of U.S. Air and Space Power I............ 1
AFR 202 The Evolution of U.S. Air and Space Power II.......... 1
Select 2 courses from the following:...................(6 credits)
BUS 311 / PSY 311 Organizational Behavior 3
BUS 209 Teamwork & Team Building 3
BUS 360 Leadership Theories and Practices.......................... 3
BUS 460 Leadership and Ethics 3
Required:
AFR 301 Air Force Leadership and Management I.................. 3
AFR 302 Air Force Leadership and Management II................ 3
AFR 401 National Security Affairs/Prep for Active Duty I........ 3
AFR 402 National Security Affairs/Prep for Active Duty II....... 3
Total Credits 22

Anthropology Minor

Dr. Anjana Mebane-Cruz, Coordinator
Sociology and Anthropology Department
Anjana.Mebane-Cruz@farmingdale.edu
631-420-2106
School of Arts & Sciences

The Anthropology Minor consists of 15 credits in Anthropology, adjustable to suit the interests of the individual student, with the approval of their Anthropology Advisor and the Department of Sociology and Anthropology. At least nine of the credits must be in advanced courses in Anthropology at the 200 level or higher. Students enrolled in the Anthropology Minor must maintain a cumulative GPA of 2.33 in their Anthropology courses.

Core: (3 Credits)
ANT 100 Introduction to Anthropology **OR**
ANT 120 Introduction to Archaeology.......................................3
General Anthropology Courses:............................12 Credits,
ANT 210 Modern Anthropology and Globalization 3
ANT 211 Caribbean Cultures... 3
ANT 212 Introduction to Medical Anthropology 3
ANT 220-229 Special Topics in Anthropology.......................... 3
ANT 240 Women, Men, and Social Change 3

ANT 250 Forensic Anthropology 3
ANT 320-329 Advanced Topics in Anthropology 3
ANT 360 Anthropological Theory..3
ANT 366 Anthropological Research Methods 3
Total Credits:...**15**

Notes: Students who plan eventually to major in Anthropology should be advised by an Anthropology faculty member and are encouraged to take a Modern Language; Statistics (MTH 110); SOC 122. Study abroad is recommended. Other courses relevant to the specific interests of Anthropology students might include: BIO 123, 130; 166/170, 193, 197, 210; CON 103; CRJ 201, 203; HIS 213, 215, 216, or 240; MLG 305-308; PCM 425, 426; POL 110; SOC 220, 225, 228-263

Applied Mathematics Minor

Dr. Carlos Marques, Chair
Mathematics Department
Carlos.Marques@farmingdale.edu
631-420-2182
School of Arts & Sciences

A minor in Applied Mathematics offers students majoring in another discipline the opportunity to strengthen their mathematical expertise and analytical skills in general, and to incorporate more mathematics courses into their major area of study.

To minor in Applied Mathematics students must:

- Complete three sequential semesters of calculus up to and including MTH 252 or MTH 322;
- Complete an additional 9 credits in mathematics courses at the 200 level or higher;
- Maintain a minimum cumulative GPA of 2.0 in the minor.

Of the credits counted towards the minor, 9 must be residency credits.

We note that several academic programs in the college require a substantial number of mathematics courses for their majors. Consequently, if a student in such a program wishes to minor in mathematics, the student may wish to consider the advantages of completing a dual major.

Art & Graphic Design Minor

Prof. Bill Steedle, Acting Chair
Visual Communications Department
Bill.Steedle@farmingdale.edu
631-420-2181
School of Business

The Art & Graphic Design Minor is an 18-21 credit adjustable minor designed to suit the artistic interests of the individual student. All students will gain a basic foundation of art and design skills and an opportunity for further study in areas such as art history and related humanities, fine arts, graphic design and/or digital photography. Students interested in this minor must be accepted into the minor by the Visual Communications department and meet with an advisor to choose appropriate courses.

Required:
VIS 112 2-D Design...3
VIS 116 Digital Media or VIS 110 Drawing I................................3
VIS 260 Graphic Design for Non VIS Majors 3
Pick 3-4 (3 courses must be at the 200 level or higher)

Art History and Related Humanities
ART 200 History of Graphic Design..3
ART 201 Art History: Prehistoric — Middle Ages 3 3
ART 202 Art History: Renaissance — Present 3
ART 302 Art History: Survey of American Art 3
EGL 269 The Romantic Arts:
Art Dance Literature and Music 3
EGL 311 Introduction to Writing for Electronic Media 3
EGL 308 The City in Literature, Art, Film and Theater...............3
Fine Arts
VIS 101 Introduction to Drawing (with VIS permission only) 3
VIS 103 Introduction to Watercolor 3
VIS 104 Introduction to Calligraphy...3
VIS 105 Introduction to Photography
(with VIS permission only) 3
VIS 110 Drawing I..3
VIS 120 Drawing II..3
VIS 214 Figure Drawing I 3
VIS 215 Introduction to Animation...3
VIS 216 Painting I..3
VIS 217 Introduction to Printmaking...3
VIS 252 Drawing and Painting Techniques 3
VIS 318 Figure Drawing II 3
Design
VIS 122 Typography I..3
VIS 115 3D Design 3
VIS 225 Photography I..3
VIS 228 4D Design..3
VIS 238 Illustration for Graphic Designers................................3
VIS 240 Publication Design I 3
VIS 242 Publication Design II 3
VIS 250 Photography II...3
VIS 254 Package Design 3
VIS 265 Web Design for Non-Majors 3
VIS 353 Editorial Design 3
VIS 354 Corporate Identity...3
Combine any 3 of the following 1 credit courses:
VIS 280 Adobe Illustrator..3
VIS 281 Adobe Photoshop 3
VIS 282 Adobe Photoshop for the Web 3
VIS 283 Adobe Dreamweaver...3
VIS 284 Adobe InDesign..3
VIS 285 Basic HTML/CSS for Graphic Design 3
VIS 286 Presentation Graphics 3
Other VIS 200+ courses may be considered as electives
if approved by the Department Chair.
Total Credits:...**18-21**

Asian Studies Minor

Dr. Dandan Chen, Coordinator
History, Politics, and Geography Department
Dandan.Chen@farmingdale.edu
631-420-2739
School of Arts and Sciences

The Asian Studies Minor consists of 15 credits (five 3-credit courses). Students are required to take three Asia-focused courses and two-Asia component courses chosen with the approval of the program's coordinator. While language study is not required for this minor, students interested in learning Chinese language can take CHI 151 and CHI 152. (Note: only one 100-level course will count toward the minor). Courses taken abroad or in an Asia-focused internship will be considered by the coordinator to determine appropriateness for the minor.

Student Learning Outcomes:
- Students will gain knowledge of Asia from a Historical and Political Perspective.
- Students will acquire an interdisciplinary appreciation of the importance of East Asia and its role and contributions to the global society - past and/or present.
- Students will develop intercultural competencies that will prepare them for travel, business, or study in East Asia.

The three required Asia-focused courses may be selected from the following options:
CHI 151 Chinese I 3
CHI 152 Chinese II 3
HIS 213 Peoples and Cultures of Asia 3
HIS 214 East Asia and the World 3
HIS 216 History of Central Asia: From Genghis to Borat 3
HIS 311 China Since 1840 3
HIS 343 Cinema and The City......................................3
POL 373 Politics in Asia and the Pacific Rim...............3

The two Asia-component courses may be selected from the following options:
ART 201 Survey of Art History:
Prehistoric Times Through Middle Ages 3
BUS 280 International Business....................................3
BUS 320 International Marketing and Global Markets 3
BUS 322 International Management 3
BUS 366 International Resource Management 3
BUS 494 Seminar in Global and International Business 3
ECO 340 International Trade 3
EGL 206 World Literature: Early Classics 3
GEO 211 The World and Its People..............................3
HIS 233 Comparative Religions and Cultures.............3
HIS 315 Imperialism..3
HOR 350 The Art History of Garden Design and Landscape Architecture...3
MLG 300 International Cinema.....................................3
POL 262 Global Politics...3
POL 265 Comparative Politics 3
POL 370 International Relations...................................3
POL 371 Geopolitics..3
POL 392 Religion and Politics......................................3
Total Credits:..15

Notes:
1. Some sections of the Special Topics courses listed below have a thematic focus on East Asia. If students request, the Minor Coordinator will approve those Asia-themed sections as counting toward the minor: ECO 390 (Special Topics in Economics), GEO 290 (Topics in Geography), GEO 390 (Special Topics in Geography), HIS 219 (Topics in History), HIS 319 (Special Topics in History), POL 395 (Special Topics in Politics), and STS 400W (Senior Seminar in Science, Technology, and Society)

2. Some sections of the Special Topics courses listed below have a thematic focus on East Asia. If students request, the Minor Coordinator will approve those Asia-themed sections as counting toward the minor: ECO 390 (Special Topics in Economics), GEO 290 (Topics in Geography), GEO 390 (Special Topics in Geography), HIS 219 (Topics in History), HIS 319 (Special Topics in History), POL 395 (Special Topics in Politics), and STS 400W (Senior Seminar in Science, Technology, and Society)

Aviation Administration Minor

Dr. Jeanne Radigan, Acting Chair
Aviation Department
Jeanne.Radigan@farmingdale.edu
631-420-2308
School of Engineering Technology

This minor is intended for students that wish to incorporate a study of Aviation Administration into their academic background. The recommended list of courses provides a broad overview of the air transportation industry, the airport and airway infrastructure and Federal Government oversight of this dynamic career field.

Required:
AVN 101 Aviation Industry: A History Perspective......................3
AVN 270 Intro to Airports Management 3
AVN 300W Gov't in Aviation 3
Aviation Electives (200 level or above) 6
Total Credits:..15

Aviation Flight Minor

Dr. Jeanne Radigan, Acting Chair
Aviation Department
Jeanne.Radigan@farmingdale.edu
631-420-2308
School of Engineering Technology

Students completing this minor will develop the aeronautical knowledge, experience, and proficiency required to obtain a private pilot certificate. This minor is intended for students that wish to incorporate practical airmanship experience into their academic background. To be eligible for certifications exams or licensure in the field, additional requirements must be fulfilled, including a medical exam administered by an FAA Aviation Medical Examiner. Additional fees associated with flight training apply. Interested students should contact the aviation department for more information.

Program of Study
Required:
AVN 104 Private Pilot Ground..3
AVN 105 Private Pilot – Flight to Solo 1
AVN 106 Private Pilot – Flight to Certificate..............................1
AVN 201 Safety Ethics..3
AVN 202 Aviation Meteorology...3
AVN 321 Physiology of Flight 3
Aviation Elective (200 level or above) 3
Total Credits:..17

Biology Minor

Dr. Sarah Gross, Chair
Biology Department
Sarah.Gross@farmingdale.edu
631-420-2175
School of Arts and Sciences

This minor is intended for students who wish to incorporate a study of biology into their academic background. In addition to the freshman Biological Principles sequence, the recommended list of courses provides the opportunity to explore various specialties within the field of Biology.

Required:
Students MUST take the following two courses:
BIO 130 Biological Principles I 4
BIO 131 Biological Principles II 4
Students must earn at least 12 additional credits, including at least one additional laboratory course, at the 200-level or above with appropriate prerequisites satisfied, selected from the following:
BIO 210 Introduction to Bioscience 3
BIO 212 Bioscience Laboratory Practices 2
BIO 220 Medical Microbiology..4
BIO 240 Bioethics 3
BIO 270 Anatomy & Physiology I..4
BIO 271 Anatomy & Physiology II...4
BIO 330 Principles of Ecology..4
BIO 340 Biopharmaceutical Regulation.......................................3
BIO 343 Principles of Genetics 3
BIO 353 Essentials of Plant Pathology 3
BIO 354L Essentials of Plant Pathology Laboratory 1
BIO 355 Ecological Topics 4
BIO 365 Neurology of Pain...3
Total Credits:...20

Business Management Minor

Prof. Mary Clifford, Coordinator
Business Management
Mary.Clifford@farmingdale.edu
631-794-6131
School of Business

Available to all baccalaureate majors except Business Management or Aviation Administration majors, the minor is intended for students who wish to attain a broad understanding of the foundation topics in this multifaceted field. The minor consists of 21 credits; BUS 101 – Accounting I, BUS 109 – Management Theories and Practices, and BUS131 – Marketing Principles are required, plus four Business courses (12 credits) at the 200 level or above.

Required (9 credits)

BUS 101 Accounting I...3
BUS 109 Management Theories & Practices...............................3
BUS 131 Marketing Principles..3
Electives (12 credits)
Business Management (BUS) courses at the 200-level or higher
Total Credits..21

Chemistry Minor

Dr. Victor Huang, Coordinator
Chemistry Department
Victor.Huang@farmingdale.edu
631-420-2773
School of Arts & Sciences

Available to all baccalaureate majors (except Bioscience), this minor is intended for students who wish to incorporate a study of chemistry into their academic background. The chemistry minor consists of 22 credit hours of five chemistry courses (CHM prefix). Chemistry minors must complete the required courses with a grade of B or better in each course. There is also a residency requirement at Farmingdale State College for the organic chemistry sequence and biochemistry.

Required:
CHM 152 General Chemistry Principles I 4
CHM 153 General Chemistry Principles II 4
CHM 270 Organic Chemistry I 5
CHM 271 Organic Chemistry II 5
CHM 380 Biochemistry 4
Total Credits:...22
The organic chemistry sequence and biochemistry must be taken in residence at Farmingdale State College

Computer Networking Minor

Dr. Jill O'Sullivan, Chair
Computer Systems Department
Jill.Osullivan@farmingdale.edu
631-420-2190
School of Business

The minor is intended for students who wish to develop and expand their knowledge and practical skill sets in Computer Networking. Students selecting this minor will take 18 credit hours of coding and network applications courses.
Required:
BCS 120 Fundamentals of Programming I....................................3
BCS 208 Introduction to Networks 3
BCS 209 Routing and Switching Essentials 3
BCS 320 Scaling Networks 3
BCS 321 Connecting Networks 3
BCS 200 Level or Higher Elective – To be determined in consultation with the Department Chair
When it is deemed necessary, substitutions may be made at the discretion of the department chair.
Total Credits:...18

Computer Programming and Information Systems Minor

Dr. Jill O'Sullivan, Chair
Computer Systems Department
Jill.Osullivan@farmingdale.edu
631-420-2190
School of Business

The minor is intended for students who wish to develop a deeper understanding and practical skill sets in programing and software applications. Students selecting this minor will take 18 credit hours of coding and computer applications courses.

Required:
BCS 120 Foundations of Computer Programming I...................3
BCS 160 Computers, Society, and Technology 3
BCS 230 Foundations of Computer Programming II.................3
Choose 3 out of 5 of the following courses
BCS 130 Website Development I 3
BCS 215 UNIX Operating Systems 3
BCS 260 Introduction to Database Systems 3
BCS 262 Data Communications 3
BCS Elective – To be determined in consultation with the Department Chair
When it is deemed necessary, substitutions may be made at the discretion of the department chair.
Total Credits:...18

Economics Minor

Dr. Xu Zhang, Chair
Economics Department
Xu.Zhang@farmingdale.edu
631-794-6260
School of Business

The Economics minor equips students with the foundational skills for higher education in economics and the social sciences, business and law. Students choosing to minor in Economics will take a total of 18 credits, which includes required core courses (9 credits). Students exposed to these economics courses will have skills and ability to compete or increase employability that the marketplace demands.

Required: (6 credits)
ECO 156 Principles of Economics (Macroeconomics) 3
ECO 157 Principles of Economics (Microeconomics) 3
At least one from
ECO 255 Money and Banking **OR**
  ECO 260 Intermediate Microeconomics **OR**
  ECO 262 Managerial Economics **OR**
  ECO 270 Intermediate Macroeconomics..................................3
**Any three additional economics courses,
200 level or above from the list below**
ECO 250 Quantitative Analysis for Economics..........................3
ECO 259 Contemporary Economic Issues and Problems 3
ECO 303 Arts and Entertainment Economics............................3
ECO 304 Sports Economics...3
ECO 310 Health Economics and Policy 3
ECO 312 Economics of Non-Profit Organizations.....................3
ECO 320 Internet and Network Economics 3
ECO 321 Engineering Economics 3
ECO 330 Modern Economic Thought 3
ECO 340 International Trade 3
ECO 341 International Finance..3
ECO 342 Financial Economics 3
ECO 350 Economics of Global Disasters 3
ECO 358 Economics of Labor..3
ECO 380 Econometrics 3
ECO 401 Industrial Organization...3
ECO 410 Public Finance/Sector Economic................................3
ECO 412 Cost-Benefit Analysis..3
ECO 415 Planning Theory and Analysis.....................................3
ECO 420 Economics of Science and Technology 3
ECO 430 Urban and Regional Economics..................................3
ECO 435 Environmental Economics and Policy 3
ECO 440 Topics in Applied Economics 3

ECO 441 Economics of Gende..3
ECO 480 Forecasting 3
ECO 489 Economic Internship 3
ECO 490 Economic Research and Reporting (Writing Intensive)...3
ECO 491 Applied Economic Analysis 3
Total Credits:...18

English Literature Minor

Dr. Marlene Groner, Chair
English Department
Marlene.Groner@farmingdale.edu
631-420-2050
School of Arts & Sciences

The English Department offers an undergraduate Literature Minor to students who have completed EGL 101 and EGL 102 and are enrolled in baccalaureate degree programs at Farmingdale State College. The English Literature Minor consists of 18 credits. Students must complete nine core credits and nine elective credits. Students must apply through the English Department, and specific course work must be determined in consultation with a full-time faculty member of the English Department.

Required:
Core:... (9 credits)
Survey Course - One course from the following part one survey courses offered by the Department:
EGL 201: English Literature: Old English through
  the 18th Century
EGL 203: American Literature: Beginnings to 1865
EGL 206: World Literature: Early Classics
Survey Course - One course from the following part two survey courses offered by the Department:
EGL 202: English Literature: 19th Century to the Present
EGL 204: American Literature: 1865 to the Present
EGL 207: World Literature: The Moderns
Genre Course - One course from the following genre courses offered by the Department:
EGL 210: Introduction to Drama..3
EGL 212: Introduction to Fiction...3
EGL 214: Introduction to Poetry 3
Electives: (9 credits)

Three courses must be chosen from this list; at least two of the three courses must be 300-level:
A third 200-level survey course, in addition to the two core survey courses
EGL 200: Shakespeare...3
EGL 222: Women in Literature 3
EGL 225: Images of Women in Drama...3
EGL 228: Classics and Mythology in Popular Culture...............3
EGL 232: Immigrant Literature: Voices of Multicultural America....3
EGL 240: Themes in Science Fiction in Film and Literature.......3
EGL 242: Film and Literature...3
EGL 244: Classics of Supernatural Film and Literature.............3
EGL 246: Themes in Literature 3
EGL 250 Young Adult Literature..3
EGL 266: Fantasy in Literature and Film....................................3
EGL 269: The Romantic Arts: Art, Dance, Literature & Music 3
EGL 302: Nineteenth Century English Novel 3
EGL 307: Special Topics in Literature 3
EGL 308: The City in Literature, Art, Film and Theatre..............3

EGL 309: Voices of Black America in Poetry, Prose and Song....3
EGL 312: Major Authors in American Literature..........................3
EGL 314: Major Authors in World Literature..............................3
EGL 316: Women in Modern American Literature 3
EGL 317: Studies in Shakespeare 3
EGL 319: Modern Drama..3
EGL 322: Leadership in Fact, Fiction and Film.........................3
EGL 323: Major Authors in British Literature 3
EGL 330: Ancient Greek Tragedy:
  Aeschylus, Sophocles and Euripides......................................3
EGL 331: Death, Madness and Sex: The Victorians..................3
Total Credits:...18

Geography Minor

Dr. Emily A. Fogarty, Coordinator
History, Politics and Geography Department
Emily.Fogarty@farmingdale.edu
631-420-2739
School of Arts & Sciences
The History, Politics and Geography Department offers a undergraduate Minor in Geography to all students. The Geography minor can complement most majors in the social sciences, physical sciences, biological sciences, and technical disciplines. The geography minor is flexible so that students can tailor their course choices to accommodate individual interests. A broadly based approach to selecting minor courses can be appropriate for students whose majors are highly specialized or narrowly focused. Alternatively, students may choose to fulfill geography minor requirements with a particular content emphasis, such as an interest in environmental issues or urban and regional planning. Looking through course choices and talking with geography staff can make earning the geography minor an important enhancement to one's academic program.
Required:
Requires 3 credits at the 100-level;
GEO 110 Maps and Map Analysis..3
Students must earn at least 12 additional credits selected from the following:
Select (3) credits in physical geography or GIS
GEO 201 Physical Geography **OR** ....
  GEO 221 Introduction to Geographic Information Systems.....3
Select (3) credits in human geography
GEO 211 The World and Its Peoples **OR** ....
  GEO 222 Human Geography **OR**..
  GEO 231 Europe and Its Peoples 3
**Select (6) credits of geography courses at the
300+ level...6**
Total Credits:...15

Notes:

1. At least 9 credits (3 courses) must be taken at Farmingdale
2. Students must maintain an overall GPA of 2.33 for all courses taken for the minor.
3. All courses must be in Geography (GEO prefix); any course substitutions must be approved by the minor coordinator in advance, in consultation with a geography advisor.

History Minor

Dr. Stephen Patnode, Coordinator
History, Politics, and Geography Department.
Stephen.Patnode@farmingdale.edu
631-420-2318
School of Arts & Sciences

The History minor is designed for students who are interested in deepening their knowledge of American, Western, and World History in order to support their long-term career goals. Selection of courses will depend on the interest of the student. Students seeking to gain an M.A. in Education will be particularly well-served by this minor program, as will students interested in pursuing post-baccalaureate degrees in Law, History, or Government/International Relations. The history minor consists of 18 hours of history courses with no more than 2 courses at the 100 level and at least 2 courses must be 300 level or above.

Required:
18 credits of History (HIS) courses; no more than 6 credits (2 courses) at the 100-level; at least 6 credits (2 courses) at the 300 level; at least 9 credits (3 courses) must be taken at Farmingdale.

In consultation with their advisor, students may apply up to–but no more than–2 of the following courses to the History minor:
ANT 120 Archaeology..3
ANT 130 North American Indians..3
ANT 210 Modern Anthropology and Globalization.....................3
ARC 362 History Western Architecture...3
ART 123 Art History...3
ART 201 Survey of Art History: Prehistoric Times through 3
  The Middle Ages..3
ART 202 Survey of Art History: Early Renaissance 3
  to the Present 3
AVN 101 Aviation Industry: A History Perspective.....................3
AVN 401 Aviation Economics 3
BUS 450 American Business History...3
CRJ 100 Introduction to Criminal Justice 3
ECO 320 Internet and Network Economics 3
ECO 330 Modern Economic Thought 3
HIS 305 Culture and Technology 3
MLG 304 French Culture and Civilization 3
MLG 305 Hispanic and Latin American
  Culture and Civilization...3
MLG 306 Italian Culture and Civilization.....................................3
MLG 308 Arabic Culture and Civilization 3
MLG 315 Art, Culture and Civilization of Spain 3
MTH 315 History of Mathematics (Writing Intensive).................3
MUS 108 Survey of Western Music 3
PHY 119 Physical Science: Technology 3
POL 263 American Foreign Relations 3
POL 267 Politics of the Muslim World..3
SOC 200 Introduction to Women's Studies.................................3
SOC 245 Technology, Society and Social Change.....................3
SOC 305 Culture and Technology...3
SOC 320 America: Dream and Reality..3
STS 400W Senior Seminar in Science,
  Technology, and Society (Writing Intensive) 3
Total Credits:...18
All other courses must carry an HIS prefix.

Italian Studies Minor

Dr. Matilde Fava, Chair
Modern Languages Department
Matilde.Fava@farmingdale.edu
631-420-2675
School of Arts & Sciences

The Italian Studies minor consists of 18 credits (six 3-credit courses). Students will be required to take MLG 306 and Italian 122, and four additional courses chosen with the approval of the program's coordinator. Students interested in learning the Italian language and perhaps teaching Italian should concentrate on courses taught in the Italian language, while those interested in different careers should choose courses in other disciplines (film, sociology, art, etc.).

Required:
MLG 306 Italian Culture and Civilization....................................3
ITA 122 Italian II (Elementary) 3
Four additional courses for the minor may be chosen from the following:
ART 202 Survey of Art History:
  Early Renaissance to the Present 3
ART 242 Italian Renaissance Art...3
BUS 320 International Marketing and Global Markets 3
HOR 228 Current Horticultural Topics 3
ITA 125 Italian for Business 3
ITA 223 Italian III (Intermediate) 3
ITA 224 Italian IV (Intermediate) 3
ITA 301 Italian V (Advanced)..3
ITA 302 Italian VI (Advanced)...3
SOC 263 Immigration Past and Present 3
MLG 301 Italian Cinema (In English) 3
MLG 311 Italian American Experiences 3
POL 265 Comparative Politics 3
POL 273 Italian Politics and Society 3
Students are encouraged to study abroad in Italy. Courses taken in Italy will be reviewed by the coordinator and considered toward the minor requirements.
Total Credits:..**18**

Latin American Studies Minor

Dr. Eugenio Villarreal, Coordinator
Modern Languages Department
Eugenio.Villarreal@farmingdale.edu
631-420-2610
School of Arts & Sciences

This minor consisting of 18 Credits (six three-credit courses). Students will be required to take MLG 305 and SPA 243 and four additional courses chosen from Art, Anthropology, Culture and Civilization, History, Literature and Cinema. Students who are fluent in Spanish may take additional courses in literature to fulfill the credit requirement with permission of the program's coordinator. Students are encouraged to study abroad in Spain, where the College has an exchange programs or any other Spanish speaking country.

Required:
MLG 305 Hispanic and Latin American Culture and Civilization....3
SPA 243 Spanish III (Intermediate) 3
The four additional courses for the minor may be chosen from the following:
ART 303 MesoAmerican Art History...3

ANT 211 Caribbean Cultures..3
HIS 280 Caribbean History..3
HIS 312 Latin American Popular Culture in the 20th Century 3
MLG 302 Spanish and Latin American Cinema..........................3
MLG 310* Latin American Women Writers.................................3
MLG 314 Hispanic Fiction to Film 3
MLG 315 Art, Culture and Civilization of Spain 3
MLG 320* Latino Writers in the U.S. 3
MLG 322 The Latin American Novel 3
SPA 244 Spanish IV (Intermediate)..3
*Students can take a maximum of two literature courses.
Total Credits:..**18**

Legal Studies Minor

Prof. Mary Clifford, Coordinator
Business Management Department
Mary.Clifford@farmingdale.edu
631-794-6131
School of Business

This minor is intended for students who are interested in the study of the law in their undergraduate education and may serve as an introduction for students who are interested in pursuing a legal career. The Legal Studies minor consists of 15 credits (five 3-credit courses). Students will be required to take the introductory course in legal studies (POL 110: Introduction to Legal Studies) plus four additional courses chosen with the approval of the program's coordinator. Alternatively, the student may elect to substitute either a law focused internship or directed independent study for one of these four additional courses.
Required:
POL 110 Introduction to Legal Studies 3
The four additional courses for the minor may be chosen from the following:
AVN 300W Government in Aviation (Writing Intensive)..............3
AVN 400 Aviation Law 3
BIO 455 Validation and Regulatory Affairs.................................3
BUS 202 Business Law I 3
BUS 230 Environmental Law 3
BUS 304 Business Law II 3
BUS 321 International Law 3
BUS 352 Employment Law..3
BUS 406 Business Organization Law 3
CON 361 Government Building,
  Environmental Codes and Regulations....................................3
CRJ 204 Criminal Law 3
CRJ 205 Criminal Procedure Law 3
CRJ 404 Cyber Law and Electronic Espionage..........................3
ECO 312 Economics of Non-Profit Organizations....................3
POL 250 American Politics..3
POL 251 State and Local Government 3
POL 310 Introduction to Political Theory 3
POL 399 NYS Legislative Internship 3
SMT 311 Sport Law 3
Total Credits...**15**

Management Information Systems Minor

Dr. Jill O'Sullivan, Chair
Computer Systems Department
Jill.Osullivan@farmingdale.edu
631-420-2190
School of Business

Available to all baccalaureate majors except Computer Programming Information Systems, the Management Information Systems minor consists of 18 credits from a list of required Business Computer Systems (BCS) courses.

Required:
BCS 120 Foundations of Computer Programming I...................3
BCS 160 Computers, Society, and Technology 3
BCS 260 Introduction to Database Systems 3
BCS 300 Management Information Systems............................3
BCS 301 Systems Analysis & Design 3
BCS 405 IS Development Project Management........................3
Total Credits:..18

Middle Eastern and Islamic Studies Minor

Dr. Robert Saunders, Coordinator
History, Politics, and Geography Department
Robert.Saunders@farmingdale.edu
631-420-2721
School of Arts & Sciences

The Middle Eastern and Islamic Studies minor is designed for students who are interested in deepening their knowledge of the languages, geography, religions, cultures, history, and politics of the Middle East and the Islamic world. Students seeking employment in government or non-governmental organizations which operate in the Middle East will be particularly well-served by this minor program, as will students who are preparing for careers in education, law enforcement, and other fields.

Required:
18 credits (6 courses) from the following courses; at least 12 credits (4 courses) must be in courses at the 200-level or higher; at least 9 credits (3 courses) must be taken at Farmingdale.
ARA 131 Arabic I...3
ARA 132 Arabic II..3
ARA 233 Arabic III...3
ARA 234 Arabic IV 3
HIS 117 World Civilization I...3
HIS 118 World Civilization II..3
GEO 211 The World and Its Peoples..3
HIS 212 Modern World 3
HIS 215 The World of Islam...3
HIS 216 History of Central Asia...3
HIS 217 From Constantine to Columbus..................................3
HIS 233 Comparative Religions and Cultures...........................3
POL 267 Politics of the Muslim World......................................3
POL 370 International Relations...3
POL 371 Geopolitics..3
POL 392 Religion and Politics 3
MLG 308 Arabic Culture and Civilization 3
MLG 309 Arabic Cinema 3
HIS 318 Israel: A History of the Jewish State 3
HIS 341 Terrorism and the Modern World 3
Total Credits:..18

Mobile Applications Development Minor

Dr. Jill O'Sullivan, Chair
Computer Systems Department
Jill.Osullivan@farmingdale.edu
631-420-2190
School of Business

The requirements for a minor in Mobile Applications Development will meet all the requirements of a minor as stated in the College Catalog.

Required:
BCS 120 Fundamentals of Programming I...................................3
BCS 230 Fundamentals of Programming II 3
BCS 345 JAVA Programming 3
BCS 421 Android Mobile Application Development...................3
BCS 422 iOS Mobile Application Development..........................3
Choose one of the following:
BCS 370 Data Structures 3
BCS 427 Game Programming...3
BCS 3XX Level or higher with permission of Chair
Total Credits:..18

Organizational Leadership Minor

Ms. Paulette Nadel, Coordinator
Business Management Department
Paulette.Nadel@farmingdale.edu
631-794-6226
School of Business

The organizational leadership minor is open to all baccalaureate students and consists of six courses, three of which are required, for a total of 18 credits. To complete the minor, students will complete three additional specified elective courses that are offered within and outside the Business Management Department.

Required:
BUS 209 Teamwork & Team Building 3
BUS 360 Leadership Theories & Practices..................................3
BUS 460 Leadership & Ethics 3
Electives (3) chosen from the following:
BUS 305 Entrepreneurship...3
BUS 322 International Management 3
BUS 311 Organizational Behavior 3
BUS 379-382 Business Internship I 3
BUS 479-482 Business Internship II 3
DEN 409 Dental Hygiene Practicum 3
ECO 262 Managerial Economics...3
EGL 322 Leadership in Fact, Fiction and Film.............................3
HIS 335 Gender and Technology in Historical Perspective 3
HIS 332 American Military History 3
HOR 370 Landscape Professional Practices...............................3
MLT 325W Laboratory Management and Informatics 3
NUR 404 Nurse as Advocate and Change Agent......................3
PHI 205 Ethics 3
PHI 207 Business Ethics...3
POL 110 Introduction to Legal Studies 3
POL 399 New York State Legislative Internship 3
PSY 330 Organizational Training and Development..................3
SMT 440-443 Sport Management Internship I...........................3
SMT 445-448 Sport Management Internship II 3
SOC 303 Sociology of Work & Occupation 3
Total Credits..18

Ornamental Horticulture Minor

Dr. Jonathan M. Lehrer, Chair
Urban Horticulture and Design Department
Jonathan.Lehrer@farmingdale.edu
631-420-2711
School of Business

The minor is designed to give the student a basic core of horticultural skills that can be amplified through a series of elective courses. Students who wish to complete this minor must be matriculated in a baccalaureate program at Farmingdale State College and must apply through the Department of Urban Horticulture and Design.

Required:

HOR 110: Horticulture I...3
HOR 111: Horticulture II – Growth and
  Development of Cultivated Plants.............................3
HOR 112: Soils: The Foundation of Life 3
12 credits must be selected from Horticulture courses
at the 200-level or higher
Total Credits.. 21

Physics Minor

Dr. Lloyd Makarowitz, Chair
Physics Department
Lloyd.Makarowtiz@farmingdale.edu
631-420-2188
School of Arts & Sciences

The physics minor is designed for students who want to add a concentration in physics to their studies. The critical thinking, data management, and analytical problem solving skills taught in physics courses are important to a wide variety of career paths, making physics minors more attractive to potential employers. Students who are interested in pursuing graduate education in biology, chemistry, engineering, finance, mathematics, or medicine will be particularly well served by this minor, as will be students who intend to transfer to pursue a physics major elsewhere in SUNY. The physics department at Farmingdale places a substantial value on performing practical physics research, and students may count academic credits from physics research towards a minor.

Required ....(11 credits)
PHY 143 General Physics I (Calculus).........................4
PHY 144 General Physics II (Calculus)........................4
PHY 333 Modern Physics..3
Nine credits of the following courses: .... (9 credits)
PHY 255 Oscillatory Motion and Waves 3
PHY 310 Analytical Mechanics.....................................3
PHY 323 Electromagnetic Theory...............................3
PHy 334 Modern Physics Lab.......................................1
PHY 356 or MTH 356 Mathematical Methods
  in Math and Physics 3
PHY 420 Optics 3
PHY 480 Physics Research I...3
PHY 481 Physics Research II 3
RAM 303 Research Experience 3
Total Credits:...20

Politics Minor

Dr. Michael Motta, Coordinator
History, Politics, and Geography Department
Michael.Motta@farmingdale.edu
631-794-6519
School of Arts & Sciences

The Politics minor is designed for students who are interested in deepening their knowledge of international affairs, government, policy-making, and the political process in order to support their long-term career goals. Students seeking employment in local, state, or national government or non-governmental organizations which interact with government agencies will be particularly well-served by this minor program.

Required:
No more than 3 credits (1 course) at the 100 level.
At least 6 credits (2 courses) at the 300 level or above.
At least 9 credits (3 courses) must be taken at Farmingdale State College.
All courses must be in Politics (POL).
Selection of courses will depend on the interests of the student.
Total Credits..15

Sociology Minor

Dr. Evan Cooper, Chair
Sociology and Anthropology Department
Evan.Cooper@farmingdale.edu
631-420-2669
School of Arts & Sciences

The Sociology and Anthropology Department offers an undergraduate minor in Sociology to all baccalaureate degree students at Farmingdale State College. Employing the concepts, theories and research methodologies of sociology, an academic minor in sociology can provide students with useful tools for the workplace and enhance their understanding of themselves and society. Students who would like to minor in Sociology should apply through the Sociology and Anthropology Department. The Sociology minor consists of 18 credits. In order to graduate with the Sociology minor, students must also have a cumulative GPA of 2.33 in their qualified sociology courses.

Core: (9 credits)
SOC 122 Introduction to Sociology **OR**
SOC 223 Social Issues and Institutions......................................3
SOC 360 Sociological Theory.....................................3
SOC 366 Sociological Research Methods 3
Any 200 level or higher Sociology Electives
  (choose from the following courses):................... (9 credits)
SOC 200 Introduction to Women's Studies...............................3
SOC 201 Sociology of Education................................3
SOC 220 Sociology of Aging......................................3
SOC 224 Urban Sociology 3
SOC 225 Sociology of the Family 3
SOC 228 Society and Health 3
SOC 229 Race and Ethnic Relations 3
SOC 231 Multiculturalism...3
SOC 235 Mass Media and Popular Culture...............................3
SOC 236 Sociology of the Military..............................3
SOC 237 The Sociology of Popular Music 3
SOC 238 Youth Culture 3
SOC 240 Women, Men and Social Change................................3
SOC 245 Technology, Society and Social Change....................3
SOC 263 Immigration Past and Present 3

SOC 270-279 Topics in Sociology 3
SOC 282 Introduction to Lesbian, Gay, Bisexual, and
  Transgender (LGBT) Studies 3
SOC 283 Sex, Gender and Sexuality 3
SOC 303 Sociology of Work and Occupation 3
SOC 304 Sociology of Leadership...3
SOC 305 Culture and Technology...3
SOC 309 Sport in Society 3
SOC 311 African American Leadership......................................3
SOC 325 Social Inequality..3
SOC 326 Visual Sociology..3
SOC 329 Social Movements 3
SOC 330-339 Seminar in Sociology 3
SOC 342 Deviance, Crime, Sex and Drugs 3
SOC 350 Global Social Change...3
SOC 351 Global Health Systems 3
SOC 361 Gender Theory 3
SOC 407 Field Research in Sociology 3
SOC 480-482 Research Internship I 3
SOC 485-487 Research Internship II 3
Total Credits:...18

Sport Management Minor

Prof. Ira Stolzenberg, Coordinator
Sport Management Department
Ira.Stolzenberg@farmingdale.edu
631-420-2786
School of Business

The Sport Management Minor is available to all baccalaureate majors, except Sport Management. The Sport Management minor is an undergraduate minor which consists of 18 credits - three required SMT courses, 6 credits of SMT courses at the 200-level or higher, or one SMT course at the 200-level or higher and SOC 309 Sport in Society and, three credits of PED elective courses. The selection of electives must be done in consultation with a full-time member of the Department.

Required: (9 credits)
SMT 110 Introduction to Sport Management 3
SMT 225 Sport Marketing 3
SMT 320 Athletic Administration...3
Electives:.. (6 credits)
Two Sport Management (SMT) courses at the 200- level or higher
OR
One Sport Management (SMT) course at the 200-level or higher and SOC 309 Sport in Society
OR
One Sport Management (SMT) course at the 200-level or higher and ECO 304 Sports Economics
Physical Education electives .... (3 credits):
A combination of three one credit courses or one three credit course, including up to two credits for participation on NCAA varsity teams.
Total Credits:...18

Web Development Minor

Dr. Jill O'Sullivan, Chair
Computer Systems Department
Jill.Osullivan@farmingdale.edu
631-420-2190
School of Business

Available to all baccalaureate majors except Computer Programming Information Systems, this minor is intended for students who have an interest in expanding their knowledge in Web development. The minor consists of 21 credits (seven 3-credit courses), all to be approved by the department chair.
Required:
BCS 120 Foundations of Computer Programming I..................3
BCS 130 Website Development I 3
BCS 160 Computers, Society, and Technology 3
BCS 230 Foundations of Computer Programming II.................3
BCS 240 Website Development II 3
BCS 303 XML 3
Notes:
BCS 200 Level or Higher Elective – To be determined in consultation with the Department Chair
When it is deemed necessary, substitutions may be made at the discretion of the department chair.
Total Credits:...21

Women, Gender, and Sexuality Studies Minor

Dr. Angela Jones, Coordinator
Sociology and Anthropology Department
Angela.Jones@farmingdale.edu
631-420-2669
School of Arts & Sciences

Women, Gender, and Sexuality Studies is an interdisciplinary program of study that examines the intricate ways in which gender relations shape the world in which we live. Courses in this program analyze how categories such as race, ethnicity, class, gender, and sexual orientation intersect and inform our social experiences. This program places emphasis on feminist perspectives for achieving social justice and gender equity.

The WGS minor prepares students for various employment and professional opportunities. This minor does not prepare students for employment in one particular job, but for many different types of employment that emphasize or require strong: writing skills, analytical and critical thinking, research skills, reading comprehension, and oral communication. This minor compliments any major degree in which students' anticipate working in diverse environments and/or in which they serve the public. The Women, Gender, and Sexuality Studies minor is particularly useful for those who will major in: Business Management, Criminal Justice, Dental Hygiene, Engineering, Nursing, Professional Communications, Psychology, Sport Management, and Science, Technology, and Society.

Consisting of 15 credits, students enrolled in the Women, Gender, and Sexuality Studies minor program must maintain a cumulative GPA of 2.5 in their qualified WGS courses.

Required: (6 credits)

SOC 200 Introduction to Women's Studies **OR**

SOC 282 Introduction to Lesbian, Gay, Bisexual,
  Transgender (LGBT) Studies 3

SOC 361 Gender Theory 3

Three courses from the following: .... (9 credits)

ANT/SOC 240 Women, Men, and Social Change......................3

SOC 283 Sex, Gender, and Sexuality 3

EGL 222 Women in Literature 3

EGL 225 Images of Women in Drama..3

EGL 316 Women in Modern American Literature 3

ECO 441 Economics of Gender 3

HIS 222 Women in U.S. History 3

HIS 335 Gender and Technology in Historical Perspective 3

MLG 310 Latin American Women Writers....................................3

PSY 230 Gender Psychology 3

PSY 238 Human Sexuality..3

PSY 307 Psychology of Women..3

Total Credits:...15

Catalog Course Descriptions

Courses are listed alphabetically by course designator.

Course Code Designators

AET	Automotive Engineering Technology	HOR	Horticulture
AFR	Air Force ROTC	HST	Health Studies
ANT	Anthropology	HUM	Humanities
ARA	Arabic	IND	Industrial Technology
ARC	Architectural Technology	ITA	Italian
ART	Art History	IXD	Interaction Design
AVN	Aviation	MET	Mechanical Engineering Technology
BCS	Computer Systems	MLG	Modern Languages
BIO	Biology	MLT	Medical Laboratory Technology
BUS	Business	MTH	Mathematics
CHI	Chinese	MUS	Music
CHM	Chemistry	NUR	Nursing
CON	Construction/Architectural	PCM	Professional Communications
CPS	Computer Security Technology	PED	Physical Education
CRJ	Criminal Justice	PHI	Philosophy
DEN	Dental Hygiene	PHY	Physics & Physical Science
ECO	Economics	POL	Politics
EET	Electrical Engineering Technology	PSY	Psychology
EGL	English	RAM	Research Aligned Mentorship
ENV	Environmental Studies	SET	Software Engineering Technology
ESL	English as a Second Language	SMT	Sport Management
ETM	Technology Management	SOC	Sociology
FRE	French	SPA	Spanish
FRX	Freshman Experience	SPE	Speech
GEO	Geography	STS	Science, Technology, & Society
GER	German	TEL	Telecommunications Technology
GIS	Geographic Information Systems	THE	Theatre
GPH	Computing Graphics	VIS	Visual Communications
HIS	History		

AUTOMOTIVE ENGINEERING TECHNOLOGY

AET 101 Internal Combustion Engine Theory and Servicing

This is a theory/laboratory course designed to introduce the student to basic heat engine types, their physical configurations and various engine operating cycles. Analytic pressure-volume diagrams are utilized to illustrate the effects of gasoline engine design on performance and combustion requirements. Topics discussed include design, construction, inspection techniques and servicing of the internal combustion engine and its components. Laboratory activities are performed to provide relevant hands-on experience to the students. Also engine aspiration, combustion using the principles of fluid dynamics and thermodynamics, volumetric efficiency and fuel metering systems will be discussed in this course. Corequisite(s): AET 101L
Credits: 3
(2,2)

AET 104 Combustion Engine Theory

This is a theory course designed to introduce the student to basic heat engine types, their physical configurations and various engine operating cycles. Analytic pressure-volume diagrams are utilized to illustrate the effects of gasoline engine design on performance and combustion requirements. Engine-vehicle performance parameters are analyzed, utilizing individual and group problem solving techniques. Credits: 2
2,0)

AET 105 Fuel Systems - SI Engines

This is a theory/laboratory course developed to give the student a basic understanding of spark ignited internal combustion engine fuel systems. Topics discussed include engine aspiration and combustion using the principles of fluid dynamics and thermodynamics as they apply to the intake, exhaust, volumetric efficiency and fuel metering systems. Engine air/fuel requirements are examined along with state of the art fuel delivery systems (carburation and fuel injection), with consideration given to fuel economy and exhaust emissions. Performance characteristics of SI Engines utilizing alternate types of fuels are also examined. Related laboratory activities and demonstrations are included in the required laboratory section (AET105L). Credits: 2
(1,2)

AET 106 Suspension and Control Systems

This is a theory/laboratory course designed to provide a thorough understanding of the design, construction and operation of automotive chassis and suspension systems. Topics will include a study of the vehicle frame, suspension, steering, wheels, tires and braking systems. Emphasis is directed to the analysis of the vehicle's systems during operation. Related laboratory activities and demonstrations are included in the required laboratory section (AET106L). Credits: 3
(2,3)

AET 107 Manual Drivetrains and Driveaxles

This is a theory/laboratory course designed to provide a thorough understanding of the vehicle's drive train. Topics will include the design, construction, inspection techniques, and service and associated repair operations of the drivetrain and driveaxle components. The topics will include clutches, propeller shafts, universal joints, CV joints, manual transmissions, differentials and other components used in both front and rear wheel drive systems. Related laboratory activities and demonstrations are included in the required laboratory section.
Corequisite: AET 107L Credits: 3
(2,3)

AET 109 Automotive Electrical Principles

This is an automotive theory course designed to introduce students to basic automotive-oriented electrical principles as they relate to both A.C. and D.C. circuits utilized in contemporary automotive electrical systems. Credits: 1
(1,0)

AET 150 Automotive Computer Applications

This is a theory/laboratory course designed to introduce the student to basic computer utilization and programming. Topics include a thorough introduction to personal computers, instruction in and development of basic programming. Students will be required to develop basic programs for technical automotive problem solving and practical automotive applications. Extensive use of the computer laboratory will be provided in the required laboratory section (AET150L). Credits: 2
(1,2)

AET 208 Automotive Electrical Applications

This is a theory/laboratory course designed to introduce the student to basic automotive-oriented electrical principles as they relate to both A.C. and D.C. circuits utilized in contemporary automotive electrical systems. The course also covers automotive electrical and electronic systems and their application. The student is required to utilize and understand the operation of various types of electronic equipment, including both computerized engine and emissions analyzers. Related laboratory activities and demonstrations are included in the required laboratory section (AET 208L). Prerequisite(s): AET 150 or MET 109
Credits: 3
(2,3)

AET 215 Diesel Engines

This is a theory/laboratory course emphasizing in the diesel engine operations and servicing. Topics will include the study of current high-pressure diesel fuel-injection systems and the diesel engine combustion process with respect to fuel injection and combustion changer design. Specific examination of design and performance characteristics of diesel engine air induction, scavenging, supercharging and turbo-charging systems will be covered. Students will also analyze engine governing methods and devices necessary for control, as well as current methods and devices utilized in solving common diesel engine starting problems. Relevant laboratory activities and demonstrations are provided to support the trainings provided during the lecture hours. Prerequisite(s): AET 101 or AET 104 Corequisite: AET 215L Credits: 3
(2,3)

AET 216 Engineering Measurements

This is a theory/laboratory course designed to provide an understanding of engineering measurements theory, methods and devices utilized in today's technology. Topics will include examination of industrial methods of testing, analysis and reporting in the areas of pressure, temperature, speed (time and velocity), fluid flow and exhaust emissions and the testing of common fuels and lubricants. Also included is the evaluation of a series of gasoline engine performance tests and their resulting data, including computer programmed computation and graphical analysis of the completed testing, as presented in a student developed technical paper. Typical engineering measurement instruments and devices will be encountered and utilized in laboratory support of the course (AET216L). Prerequisite(s): AET 150 Credits: 3
)2,2)

AET 217 Applied Mechanics and Engineering Materials

This course is designed to introduce the fundamental principles of applied engineering mechanics and materials. Topics include forces, couples, equilibrium, friction, kinematics of rectilinear and rotational motion, work, energy and power. Principles and applications of hydraulics are also discussed. Engineering materials topics include classifications, structure, properties, phase transformation and heat treatment of metals, inspection and testing techniques of automotive engineering materials. Related problem-solving activities are included. Prerequisite(s): PHY 135 and MTH 130 Credits: 3
(3,0)

AET 218 Applied Manufacturing Processes

This is a theory/laboratory course designed to introduce the student to basic manufacturing processes and machine tool operations. Topics covered are casting, cold and hot metal forming, machining and joining processes. Related laboratory activities include projects and experiments with technical reports. Individual laboratory projects will be assigned to each student to reinforce the topics covered in the theory. NOTE: Students completing this course may not receive credit for MET 117. Prerequisite(s): AET 101 and AET 107 Credits: 2
(1,3)

AET 255 Computerized Engine Controls

This is a theory/laboratory course developed to provide the student with a working understanding of automotive electronics and computerized engine control systems. The course includes computerized fuel and emission control systems, with emphasis on the diagnosis of basic engine malfunctions. The student will also analyze the principles and operation of feedback type systems. Electronic diagnostic equipment is used to identify system malfunctions in order to indicate necessary corrective actions. Laboratory activities provide an opportunity for a practical application of diagnostic procedures on current vehicles which is covered in the laboratory section (AET255L). Prerequisite(s): AET 208 Credits: 3
(2,2)

AET 257 Automatic Transmissions

This is a theory/laboratory course dealing with the transmission of power in automobiles, emphasizing contemporary automatic transmissions. Topics covered include applications of the principles of the planetary gear systems, fluids, seals, hydrodynamic drives, hydraulic controls and application devices. The power flow within selected automatic transmissions is discussed and is supported with related activities in the required laboratory section (AET257L). Prerequisite(s): AET 107 Credits: 3
(2,2)

AET 290 Project Seminar

This course is designed to provide the student with the challenge of an independent project. Requirements will include the completion of an extensive faculty approved research/construction project. This project must be related to the automotive field. The student is responsible for the original project concept, which must be supported by preliminary, progress and final technical reports. A video-taped oral presentation is also required. Note: Students cannot get credit for AET 290 and 290W; AET 290W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the Automotive & Mechanical Engineering Department. Credits: 1
(0,2)

AET 410 Senior Project

An independent investigation of a technical or managerial problem of interest to both the student and a faculty member who shall act as Project Advisor. The project selected will utilize skills and knowledge acquired in earlier AET studies. Prerequisite(s): Senior status and permission of the Department Chair Note: Students cannot get credit for AET410 and 410W; AET 410W can be used to fulfill the writing intensive requirement Credits: 3
(2,2)

AET 490-499 Selected Topics in Automotive Management Technology

Courses that range from 490-499 are selected topics of current interest in Automotive Engineering Technology. Prerequisite: Senior status and/or permission of the Chair/Faculty. Credits: 1 to 3
(1,0 to 9)

AIR FORCE ROTC

AFR 101 The Foundations of the U.S. Air Force I

This is a survey course designed to introduce students to the United States Air Force and provides an overview of the basic characteristics, missions, and organization of the Air Force. The course covers the history and structure of the US Air Force, the Air Force's capabilities, career opportunities, benefits, and Air Force installations. Credit: 1
(1,0)

AFR 102 The Foundations of the U.S. Air Force II

This course is a continuation of study associated with AFR 102. Credit: 1
(1,0)

AFR 201 The Evolution of U.S. Air and Space Power I

This course features topics on Air Force heritage and leaders; introduction to air power through examination of the Air Force Core Functions; and continued application of communication skills. Its purpose is to instill an appreciation of the development and employment of air power. Credit: 1
(1,0)

AFR 202 The Evolution of U.S. Air and Space Power II

This course is a continuation of study associated with AFR 201. Credit: 1
(1,0)

AFR 301 Air Force Leadership and Management I

This course is a study of leadership, management, professional knowledge, Air Force personnel and evaluation systems, leadership ethics, evaluation systems, and the communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical applications of the concepts being studied. Prerequisite(s): AFR 101, AFR 102, AFR 201, AFR 202 Credits: 3
(3,0)

AFR 302 Air Force Leadership and Management II

This course is a continuation of study associated with AFR 301. Prerequisite(s): AFR 101, AFR 102, AFR 201, AFR 202 Credits: 3
(3,0)

AFR 401 National Security Affairs/Prep for Active Duty I

This course examines the national security process, regional studies, advanced leadership ethics, and Air Force doctrine. Special topics of interest focus on the military as a profession, officer ship, military justice, civilian control of the military, preparation for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis is given to refining communication skills. Prerequisite(s): AFR 101, AFR 102, AFR 201, AFR 202 Credits: 3 (3,0)

AFR 402 National Security Affairs/Prep for Active Duty II

This course is a continuation of study associated with AFR 401. Prerequisite(s): AFR 101, AFR 102, AFR 201, AFR 202 Credits: 3 (3,0)

ANTHROPOLOGY

ANT 100 Introduction to Anthropology

Anthropology is the scientific study of human-kind. This course offers an introduction to its four major sub-fields, namely; Physical or Biological anthropology (human evolution, the fossil record, ethology); Archaeology (extinct cultures, classical civilizations, pre-history); Linguistics (language origins, development, diffusion, structure, and change); Sociocultural Anthropology (pioneers in the field, cross-cultural research, case studies, and the future). By focusing on the broad cultural implications and complexities of social communication and interaction, anthropology seeks to understand the whole human experience. Credits: 3 (3,0)

ANT 110 Sociocultural Anthropology

Sociocultural Anthropology is concerned with examination of the social and cultural similarities and differences in the world's human populations. Subsistence patterns, social organization, economic structures, political systems, religion and creative behavior are the major areas we cover. By examining examples ranging from small gathering and hunting groups to large modern day communities, this course provides a broad perspective of the sociocultural realities of our world. Credits: 3 (3,0)

ANT 120 Archaeology

Archaeology is the study of the cultural evolution of humankind using the material remains of past human behavior. This course introduces the methods, logic and history of archaeology through an examination of several ancient civilizations as understood through their architecture and artifacts. Topics include theoretical issues, fieldwork, and interpretation of artifacts and reconstruction of past cultural patterns. Examples will be drawn from such cities and civilizations as Mesopotamia, Crete, Troy, Ancient Egypt, Pompeii, and North and South America. Students will visit at least one relevant site, exhibit or museum as a course requirement. Credits: 3 (3,0)

ANT 130 North American Indians

This course provides a comprehensive history of the human groups who populated North America before, during and after this continent became involved with the culture, politics and economics of Europe. It focuses on the dynamic heritages, languages, knowledge, technology, arts, and values that have been passed on through the generations. Students will be introduced to the anthropological literature concerned with the study and understanding of Native American cultures and societies. Some field study may be required. Credits: 3 (3,0)

ANT 210 Modern Anthropology and Globalization

Cultural change and the social processes involved are major areas of cultural anthropological research. By introducing students to the application of anthropological methodologies such as field work and cross-cultural comparison, the course examines some of the major issues which confront human beings in a complex rapidly growing and changing world including: globalization, migration and immigration, population changes, social conflict, agricultural/technological development, nutrition, commodity/cultural exchange, and the future of small scale homogeneous societies. Prerequisite(s): Any 100 level social science or business course. Credits: 3 (3,0)

ANT 211 Caribbean Cultures

This course covers: pre-European cultures in the Caribbean, the post-Columbus plantation system, contemporary economics and politics, community structure, religion, marriage and family, ethnic diversity, immigration and the arts. An in-depth study of these topics will provide knowledge, understanding and appreciation of this region while offering insights into the development of communities in the U.S. with Caribbean heritage. Credits: 3 (3,0)

ANT 212 Introduction to Medical Anthropology

Medical Anthropology is a subfield of Anthropology that draws upon social, cultural, biological, and linguistic anthropology to better understand those factors which influence health and well being (broadly defined), the experience and distribution of illness, the prevention and treatment of sickness, healing processes, the social relations of therapy management, and the cultural importance and utilization of pluralistic medical systems. (SMA) This course introduces students to the subject and basic methods used in cross-cultural comparisons and research, as well as providing a better understanding of Western and non-Western perceptions and treatments of the body and health issues. Prerequisite(s): EGL 101, ANT 100 or SOC 122 or SOC 228 or BIO with lab Credits: 3 (3,0)

ANT 220-229 Topics in Anthropology

Courses that range from 220-229 are special topics courses. This course provides the opportunity to study, explore, examine and analyze areas of special, short-term interest in anthropology. Each topic builds on knowledge learned in the 100 level courses. Prerequisite(s): ANT 100 or 110 or SOC 122 Credits: 3 (3,0)

ANT 240 Women, Men and Social Change

This course studies men's and women's changing roles, relationships, and participation in the labor force both cross-culturally and historically. We give special emphasis to those changes which occur as technology changes. A major part of the course concerns how and why today's women and men arrive at their social, economic, political and legal statuses. Note: Students completing this course may not receive credit for SOC 240. Credits: 3 (3,0)

ANT 250 Forensic Anthropology

This course provides a broad overview of Forensic Anthropology- an applied field within Anthropology- dealing with the osteological (skeletal anatomy and biology) analysis of human remains. We will employ and discuss scientific methods used to explore and a broad range of problems associated with identification and trauma analysis using data gathering methods such as: characteristics of the human skeleton; identification of ancestry, age, sex; recovery methods; use of appropriate technologies for analysis, including DNA. Prerequisite(s):Any BIO with lab and ANT 100 or ANT 110 or SOC 122 Credits: 3 (3,0)

ANT 320-329 Advanced Topics in Anthropology

Courses that range from 320-329 are special topics courses. This course offers students the chance to study short term topics of specialized, more advanced areas of anthropology. Each topic builds and expands on information learned in introductory courses. This course is particularly recommended to students in the Anthropology Minor program, but is open to other interested students who meet the prerequisites. Prerequisite(s): ANT 100 or ANT 110 or ANT 120 and one 200 level ANT course Credits: 3
(3,0)

ANT 330 Human Osteology

Human Osteology is designed to give students a detailed and intensive knowledge of human skeletal anatomy using an anthropological approach. This course will cover skeletal growth and development, variation, histology, and pathology, in addition to basic demographic analyses (age, sex, stature and ancestry). Through lectures and hand-on experience, using skeletal material from the collections housed in the Sociology and Anthropology department, students will learn to identify all skeletal elements, to understand and appreciate the variation observed within and between populations and to appreciate the influence culture has on the human skeletal system. Course lectures will be enhanced using case studies from archaeology and forensic anthropology. Prerequisite(s): ANT 120 or ANT 250 or BIO 166 or BIO 170 Credits: 3
(3,0)

ANT 360 Anthropological Theory

This course explores the broad historical outline of major theoretical approaches in the field of Anthropology, from the late 19th century to the present. Debates within the discipline and the larger historical, cultural and intellectual contexts in which they were produced, will be examined, as will the enduring relevance of these theories. The course includes reading and critical analysis of texts, as well as class discussions. Prerequisite(s): (ANT 100 or ANT 110), EGL 102, any 200 level ANT course. All with a grade of C or higher. Credits: 3
(3,0)

ANT 366 Anthropological Research Methods

This course focuses on research methods in anthropology as the means for learning ethnographic research methods and how to talk and write about culture, as a basis of anthropological research. The purpose of the course is to gain experience in ethnographic practices, including interviewing, fieldwork research, qualitative analysis, and writing critically informed accounts. Prerequisite(s): (ANT 100 or ANT 110), EGL 102 and any 200 level ANT course. All with a grade of C or higher. Credits: 3
(3,0)

ANT 480 Research Internship I

The research internship provides students with insight into the personal qualities and skills that make a good researcher, as well as learning about the broader impact of scientific discovery. While working alongside a faculty member students will be able to hone their research and analytical skills, through hands-on experiences. Students will create a research plan in consultation with the faculty member and spend 45-135 hours during the semester working on research. While each course design will vary, students will be involved in library research, compiling literature reviews, data collection, and data analysis. Students must either complete a paper or poster at the conclusion of their research internship. Prerequisite(s): ANT 366 with a grade of C or higher Credits: 1-3
(0,0,3)

ANT 481 Research Intership I

The research internship provides students with insight into the personal qualities and skills that make a good researcher, as well as learning about the broader impact of scientific discovery. While working alongside a faculty member students will be able to hone their research and analytical skills, through hands-on experiences. Students will create a research plan in consultation with the faculty member and spend 45-135 hours during the semester working on research. While each course design will vary, students will be involved in library research, compiling literature reviews, data collection, and data analysis. Students must either complete a paper or poster at the conclusion of their research internship. Prerequisite(s): ANT 366 with a grade of C or higher Credits: 2
(0,0,6)

ANT 482 Research Intership I

The research internship provides students with insight into the personal qualities and skills that make a good researcher, as well as learning about the broader impact of scientific discovery. While working alongside a faculty member students will be able to hone their research and analytical skills, through hands-on experiences. Students will create a research plan in consultation with the faculty member and spend 45-135 hours during the semester working on research. While each course design will vary, students will be involved in library research, compiling literature reviews, data collection, and data analysis. Students must either complete a paper or poster at the conclusion of their research internship. Prerequisite(s): ANT 366 with a grade of C or higher Credits: 3
(0,0,9)

ANT 485 Research Internship II

The research internship provides students with insight into the personal qualities and skills that make a good researcher, as well as learning about the broader impact of scientific discovery. While working alongside a faculty member students will be able to hone their research and analytical skills, through hands-on experiences. Students will create a research plan in consultation with the faculty member and spend 45-135 hours during the semester working on research. While each course design will vary, students will be involved in library research, compiling literature reviews, data collection, and data analysis. Students must either complete a paper or poster at the conclusion of their research internship. Prerequisite(s): ANT 366 with a grade of C or higher Credits: 1
(1,0)

ANT 486 Research Internship II

The research internship provides students with insight into the personal qualities and skills that make a good researcher, as well as learning about the broader impact of scientific discovery. While working alongside a faculty member students will be able to hone their research and analytical skills, through hands-on experiences. Students will create a research plan in consultation with the faculty member and spend 45-135 hours during the semester working on research. While each course design will vary, students will be involved in library research, compiling literature reviews, data collection, and data analysis. Students must either complete a paper or poster at the conclusion of their research internship. Prerequisite(s): ANT 366 with a grade of C or higher Credits: 2
(2,0)

ANT 487 Research Internship II

The research internship provides students with insight into the personal qualities and skills that make a good researcher, as well as learning about the broader impact of scientific discovery. While working alongside a faculty member students will be able to hone their research and analytical skills, through hands-on experiences. Students will create a research plan in consultation with the faculty member and spend 45-135 hours during the semester working on research. While each course design will vary, students will be involved in library research, compiling literature reviews, data collection, and data analysis. Students must either complete a paper or poster at the conclusion of their research internship. Prerequisite(s): ANT 366 with a grade of C or higher Credits: 3
(3,0)

ARABIC

ARA 131 Arabic I (Elementary)

A beginning course in Arabic emphasizing the gradual development of the four language skills: listening, speaking reading and writing with stress on communicative competence and cultural awareness.
Credits: 3
(3,0)

ARA 132 Arabic II (Elementary)

A continuation of ARA 131 or for students who have had 2 to 3 years of high school Arabic. This course emphasizes the gradual development of the four language skills: listening, speaking, reading and writing with stress on communicative competence and cultural awareness.
Prerequisite(s): ARA 131 Credits: 3
(3,0)

ARA 233 Arabic III (Intermediate)

For those students who have taken ARA 132 or four or more years of high school Arabic. This intermediate course further emphasizes the development of the four language skills: listening, speaking, reading, and writing with stress on communicative competence and cultural awareness. A literary and cultural reading will be introduced.
Prerequisite(s): ARA 132 Credits: 3
(3,0)

ARA 234 Arabic IV (Intermediate)

For those student who had taken ARA 233 or four or more years of high school Arabic. This course emphasizes structural review, intensified practice in oral expression with increased emphasis on reading and writing skills. Continued attention will be given to contemporary Arabic culture. Selections from Arabic authors will be read. Prerequisite(s): ARA 233 Credits: 3
(3,0)

ARCHITECTURAL TECHNOLOGY

ARC 101 Introduction to Architecture & Construction

This is an introduction to elementary concepts, literacy and graphics in the architectural and construction field. This elective course is for students who have never taken any hand drawing/drafting and Computer Aided Drafting (CAD). The course will provide a hands on experience in architectural and construction drawing/drafting, sketching, model building, orthographic projection. The use of reading scales, lengths, areas and volumes in drawings is developed to help students visualize and understand building elements and plans. The course will include basic CAD fundamentals, site visits and future employment requirements and opportunities for those interested in the major. Credits: 3
(2,2)

ARC 131 Introduction to Graphics

Introduction to architectural and construction graphics using hand drawing/drafting and Computer Aided Drafting (CAD). Hand drawing/drafting topics include: lettering, technical sketching, use of drafting instruments, the fundamentals of orthographic projection, plan, section, elevation development and pictorial drawings to develop the student's abilities to visualize and describe objects graphically. CAD topics include software commands and drawing strategies for 2-D and 3-D CAD work, plans, sections, elevations, and details, information management, assembly of drawings and scales. Note: This course includes a required laboratory designed to provide extra time for the studio experience. Credits: 4
(3,0,2)

ARC 255 Architectural Design I

Studies the principles of form, space and order that underlie architectural design. Concepts include: mass void modeling, volume and space construction, enclosing planes, circulation, organization, hierarchy, and structure. The diagram and sketch model are introduced as methods of understanding design. Concepts are explored in both three dimensional and graphic form. Note: This course includes a required laboratory designed to provide extra time for the studio experience. Prerequisite(s): ARC 131 Credits: 4
(3,0,2)

ARC 257 Architectural Design II

Continuation of Architectural Design I. Emphasis is placed on the process by which design decisions are made and the methods of analysis in context to the existing environment. Topics include: structure, form and function, building in context, light and construction. Note: This course includes a required laboratory designed to provide extra time for the studio experience. Prerequisite(s): ARC 255
Credits: 4
(3,0,2)

ARC 263 Mechanical, Electrical, Plumbing and Energy Systems

An overview of mechanical, electrical and plumbing (MEP) aspects of buildings. Intended to develop students' ability to analyze energy requirements of buildings and various methods of energy conservation and thermal efficiency. Topics covered include heat flow, system and equipment for heating and cooling. Also included are water supply and wastewater treatments for buildings. Prerequisite(s): CON 162
Credits: 3
(3,0)

ARC 282 Construction Design

Construction Design is a technology-based design studio emphasizing a methodological approach to the assembly of the building's envelope, materials and systems. The integration of building code requirements, life safety, accessibility, building energy systems, structure, construction, and materials are central to effectively achieving design intent. Knowledge from Materials and Method of Construction I and II, Energy in Buildings and Graphics are applied to specific drawing assignments. A residential Type V construction, and a commercial Type II or Type III construction, building project will be advanced resulting in a set of construction documents. Note: This course includes a required laboratory designed to provide extra time for the studio experience. Prerequisite(s): ARC 131 and CON 162 Credits: 4
(3,0,2)

ARC 310 Construction Design

Construction Design is a technology-based design studio emphasizing a methodological approach to the assembly of the building's envelope, materials and systems. The integration of building code requirements, life safety, sustainability, accessibility, building energy systems, structure, construction and materials are central to effectively achieving design intent. Knowledge from Materials and Method of Construction I and II, Energy in Buildings and Graphics are applied to specific drawing assignments. A residential Type V construction, and a commercial Type II or Type III construction, building project will be advanced resulting in a set of construction documents. Note: This course includes a required laboratory designed to provide extra time for the studio experience. Prerequisite(s): ARC 131, CON 106, and ARC 263 Credits: 4
(3,2)

ARC 350W Architectural Theory and Design Factors (Writing Intensive)

This course will examine a series of architectural theories and design factors that attempts to explain, predict or influence design decisions that result in the built environment. Topics include: historical theory, form and aesthetics; architectural technology; the urban, natural and human environment; economic, zoning and code factors; the social and behavioral implications of architecture, the design process itself and the architectural profession. This is a writing-intensive course. Prerequisite(s): ARC 257 and ARC 362 and EGL 101 with a grade of C or higher. Note: Students cannot get credit for ARC 350 and 350W; ARC 350W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the Architectural/Construction Management Department. Credits: 3
(3,0)

ARC 362 History of Western Architecture

A study of the development of building design from the Ancient Egyptians and Greeks throughout the major historical periods to the present. Emphasis is on the evolution of the forms derived from indigenous technologies of periods surveyed. Credits: 3
(3,0)

ARC 364 Site Design and Construction

This is an advanced course in the utilization of engineering and architectural principles from concept through the construction techniques of traditional and sustainable site development. Site planning techniques, municipal land development requirements, zoning regulations, soil stabilization techniques, erosion control parameters, stormwater management practices, and site construction details are applied to a site design project. Computer-aided programs in site design and survey data management will be introduced. Prerequisite(s): CON 162 and (ARC 131 or CON 121) Credits: 3
(2,2)

ARC 376 Architectural Design III

Continuation of Architectural Design II. Emphasis is placed on the urban and natural environment. The role of aesthetics, symbols, and the use of historical elements in the making of places, spaces and communicating meaning are explored. Topics include: building on Main Street, the making of an urban space and a cemetery or park design. Note: This course includes a required laboratory designed to provide extra time for the studio experience. Prerequisite(s): ARC 257 Credits: 4
(3,0,2)

ARC 399 Applied Research Topics

A program of applied research and independent study on topics a faculty member is currently working on. this course is meant to enrich the learning experience by introducing the student to methods and analysis in applied research. this is a fully faculty directed and supervised structured research experience. Applied research work will be presented in an appropriate form. Credits: 3
(1,0,6)

ARC 476 Architectural Design IV

Continuation of Architectural Design III. Emphasis is placed a project that integrates principles of architectural design and includes elements of building systems, structural and site design, zoning and building codes, etc. on an actual site in the area. Students will present their final project to invited architects at the end of the semester. Note: This course includes a required laboratory designed to provide extra time for the studio experience. Prerequisite(s): ARC 376 Credits: 4
(3,0,2)

ARC 486 Architectural Design V

This architectural design course integrates several architectural and engineering design philosophies and methodologies into a comprehensive studio project. This course introduces very little new material; rather it is to synthesize knowledge learned in the following areas of design and analysis: architectural, structure, construction, site, energy (mechanical/electrical) and building systems and cost estimating. This multidisciplinary project uses a student design team approach. Note: This course includes a required laboratory designed to provide extra time for the studio experience. Prerequisite(s): ARC 282 and ARC 476 Credits: 4
(3,0,2)

ART HISTORY

ART 123 Art History

An analysis of the social, physical and psychological influences affecting the artist during various historical periods through the present. Emphasis is on the interrelationship between the changing purposes of art and variations in the meaning and form of artistic expression. Credits: 3
(3,0)

ART 200 History of Graphic Design

Graphic design has great power and has both reflected and influenced our society and culture throughout history. This course identifies the key movements within the history of graphic design from the Graphic Renaissance throughout today and highlights how these movements have mirrored and changed the course of our society and the field of graphic design. Lectures, images and texts will be used in of each of the following periods: Graphic Renaissance, the Industrial Revolution, Mid-Century Modernism, Late-Modernism Post-Modernism and the Digital Age. Prerequisite(s): EGL 101 Credits: 3
(3,0)

ART 201 Survey of Art History: Prehistoric Times through The Middle Ages

A survey of the history of the visual arts from their beginnings in prehistoric times to the end of the Middle Ages. Works of art are studied both as monuments of intrinsic aesthetic value and as expressions of the needs, ideals, and aspirations of the societies in which they were created. Prerequisite(s): EGL 101 Credits: 3
(3,0)

ART 202 Survey of Art History: Early Renaissance to the Present

A survey of the history of the visual arts from the Early Renaissance to the Present. Works of art are studied both as monuments of intrinsic aesthetic value and as expressions of the needs, ideals, and aspirations of the societies in which they were created. Prerequisite(s): EGL 101 Credits: 3
(3,0)

ART 203 History of Interaction Design

The foundations of interaction design preceded the invention and use of the first computers and have evolved with the constant changes in technology. From punch cards to voice recognition, from the earliest computers to the mobile platforms of today, the need for a formal definition and definitive history of Interaction Design has increased as quickly as the technology has changed. This class will provide an over view of the history of the relationship between human beings and the tools and technology they use. The evolution of the computer and other digital devices will be explored with the emphasis on the events that lead to the formalization of Interaction Design into a vibrant and growing discipline. Prerequisite(s): EGL 101 Credits: 3
(2,2)

ART 242 Italian Renaissance Art

This course is designed to introduce students to Ancient through Baroque art found in Italy. Students will be required to meet on campus prior to departing for Europe to study the great masterpieces of the Ancient, Medieval, Renaissance and Baroque periods of art found in their original contexts throughout Italy. Works of Painting, Sculpture, Architecture, Illuminated Manuscripts and other applied arts will be studied as they relate to the periods in which they were created. Prerequisite(s): EGL 101 Credits: 3
(3,0)

ART 244 Visual Studies and Studio in Northern

This course is designed to introduce students to Medieval through 19th century European art found in the countries of France, Belgium and Holland. The class will meet four times on campus prior to departing for Europe to study the great masterpieces of the Gothic Medieval, Renaissance, Baroque, Rococo, Neo Classical, Romantic, Realistic and Impressionist and Post-Impressionist periods of art found in their original contexts throughout Europe. The Great institutions to be visited may include: the Louvre, the Rijks Museum and Hague to name a few. Prerequisite(s): EGL 101 and VIS 101 or VIS 110 Credits: 3
(3,0)

ART 245 Visual Art Studies and Studio in Greece

This course will introduce the Ancient through Byzantine periods of art as they occurred in Greece. Students will study the art and the history surrounding the art's creation during three lectures on the campus of Farmingdale State. This will occur before departing to Europe to visit the country of Greece to study the original art first hand over the period of two weeks. In Europe, students will explore the Aegean, Classical, Hellenistic, Roman and Byzantine art styles by studying works of architecture, sculpture, painting, illuminated manuscripts, archaeological and other applied arts in the context of churches, archaeological sites and art museums. Mythology and Homeric literature will be introduced in order to gain an insight into the cultural foundations of Western Art and Civilization. Students will be assigned a term paper based on specific works studied, and will also be expected to maintain a journal including notes, drawings and other entries related to their experience abroad. Prerequisite(s): EGL 101 Credits: 3
(3,0)

ART 301 Arts in the Twentieth Century

An analysis of the development of music, art, film, theater, dance, architecture, and design through the nine decades of the twentieth century. Field trips to various cultural events and extensive use of audio-visual materials are included. Prerequisite(s): EGL 102 with a grade of C or higher. Credits: 3
(3,0)

ART 302 Art History: Survey of American Art

A survey of the development of painting, sculpture, and architecture in the United States from the early colonial period to the present. Lectures, supplemented by slides and textbook illustrations, will provide the basis for an analysis of the "schools" styles, and influences that determined and are affecting the direction of American Art. Credits: 3
(3,0)

ART 303 MesoAmerican Art History

This course is designed to expose students to the art, culture and history of Mexico and Central America from the first peoples of the Americas to the Spanish Conquest, Colonial Period, Revolution, Modern and contemporary eras. The class will introduce the student to visual works of art including sculpture, painting, architecture and other applied arts. The course begins with prehistoric art of the Clovis peoples of the American Southwest and concludes with the contemporary era. The class covers Clovis, Olmec, Maya, Zapotec, Mixtec, Aztec, Mexican and Guatemalan art and touches on significant imported Spanish influences. The history, mythologies, politics, religions, and philosophical thought of the periods are introduced in order to provide a context for the visual art. Credits: 3
(3,0)

AVIATION

AVN 100 General Aeronautics

This course provides introductory orientation and practical information essential to the career progression of both pilots and aviation administrators. Topics include: attributes of an aviation professional; aircraft design, components, performance, operation, maintenance and safety with human factors emphasis.   Credits: 3
(3,0)

AVN 101 Aviation Industry: A History Perspective

This course is a basic survey of the aviation industry viewed from a historical perspective. Topics covered will range from the early days of aviation to the present. The course will also examine the chronology of aviation laws and regulations and how they have changed from aviation beginnings in the United States to present day. At the conclusion of this course, the student will have a comprehensive knowledge of the U.S. air transportation industry and will understand its significant social/economic impact upon the nation and the world.   Credits: 3
(3,0)

AVN 104 Private Pilot Ground

Private Pilot-Ground Training will enable the student to meet the prerequisite(s) specified in 14 CFR Part 61.105 as well as 14 CFR Part 141 Appendix B, as appropriate. Selected subject areas will include airplane systems, aerodynamic principles, flight environment, communication and flight information, meteorology for pilots, FAA Regulations, National Airspace System, NTSB, AC's, interpretation of weather data, aircraft performance, radio and visual navigation, human factors, flight safety, and cross country flight planning. A grade will be issued upon taking the FAA "Knowledge Examination" necessary for the Private Pilot certificate. Prerequisite(s): FAA Student Pilot Certificate Credits: 3
(3,0,1)

AVN 105 Private Pilot Flight To Solo

Private Pilot Flight to Solo will enable the student to meet some of the prerequisite(s) specified in 14 CFR Part 61.109 or 14 CFR Part 141 Appendix B, as appropriate. During this course, the student obtains the foundations for all future aviation training. The student becomes familiar with the training airplane and learns how the airplane controls are used to establish and maintain specific flight attitudes and ground tracks. At the conclusion of the course, the student demonstrates proficiency in basic flight maneuvers and the student pilot will have successfully completed no less than three (3) takeoffs and full stop landings in the traffic pattern as Pilot-in-Command. Students must have a FAA Student Pilot Certificate/FAA 3rd Class or higher Medical Certificate. Aero fees will be charged. Note: FAA minimum hours approved are 35 total hours for AVN 105 & 106. Prerequisite(s): FAA Student Pilot Certificate and AVN 104 Credits: 1
(0,0,4)

AVN 106 Private Pilot Flight To Certificate

Private Pilot Flight training will enable the student to meet the prerequisite(s) specified in 14 CFR Part 61.109 or 14 CFR Part 141 Appendix B, as appropriate. Private Pilot Flight to Certificate will enable the student to meet the requirements necessary to obtain a Private Pilot certificate. An enrolled student must demonstrate through oral examinations, practical tests, and appropriate records that he/she meets the knowledge, skill and experience requirements necessary to obtain a Private Pilot certificate with an airplane single-engine land rating. Selected subject areas will include engine starting, normal and crosswind taxiing, radio communications, normal takeoffs, power on and power off stalls, maneuvering during slow flight, traffic patterns, go around from a rejected landing, crosswind and normal landings, cross country flying, radio navigation, cockpit management, low level wind shear precautions, airport and runway marking and lighting, constant airspeed climbs and descents, stall spin awareness, and steep turns. Students must have a FAA Student Pilot Certificate/FAA 3rd Class or higher Medical Certificate. A grade will be issued upon taking the FAA Private Pilot practical exam. Aero fees will be charged. Note: FAA minimum hours approved are 35 total hours for AVN 105 & 106. Prerequisite(s): AVN 104 and AVN 105 with a grade of C or higher; FAA Student Pilot Certificate Credits: 1
(0,0,4)

AVN 110 Introduction to Flight

Introduction to Flight offers students with no prior flight time an opportunity to begin training in normal preflight, in-flight and post-flight procedures as provided by the SUNY Flight Line. The student is afforded 5 hours combined flight and simulator time and may then commence flight training for Private Pilot. Aero fees will be charged. Note: Flight courses must be completed within a year from the date a student registers. Within this time frame a student must either 1) Successfully complete the course and be issued a grade, OR 2) Withdraw from the course, due to the following extenuating circumstances: Active Military Obligations, Medical conditions requiring removal from active flight status for a duration of 60 consecutive days or more. If neither of the above occurs, a failing grade will be assigned. Credits: 2
(0,0,6)

AVN 112 Pilot Proficiency

Prior to beginning training at FSC students with prior flight experience of solo privileges or higher will be required to go through an evaluation. A grade and or transfer credit will be issued upon successful completion of the applicable requirements per ratings/certificates held. Course length is contingent upon student's knowledge and skills. Aero Fees will be charged. Prerequisite(s): Prior flight experience of solo or higher Credits: 2
(1,3)

AVN 126 Aviation Security Management I

This course will introduce students to techniques and procedures necessary to maintain security in the aviation industry. Topics will include screening passengers and cargo, access control, Closed Circuit Television (CCTV) monitoring, Explosive Trace Detection (ETD) systems, X-ray systems, wanding, and other new developmental technologies. In this course, students will become familiar with the above security methods by using hands on techniques. Students will learn how to operate and maintain Explosive Trace Detection machines and X-Rays, properly screen passengers and monitor CCTV systems to prevent breaches in security. Prerequisite(s): AVN 101 with a grade of C or higher Credits: 3
(1,6)

AVN 128 Unmanned Aerial Systems

The course provides students with a thorough understanding of Unmanned Aerial Systems (UAS) history, applications, airframe types, sensors, payloads, and future developments. In-depth coverage of applicable FAA regulations and flight operations in the National Airspace will coincide with demonstrations of UAS usage. Prerequisite(s): None Credits: 3
(3,0)

AVN 201 Safety Ethics

This course emphasizes ethical decision making as it applies to Complex Systems, aviation and aerospace, nuclear power plant, civil and IT engineering and the medical field. These systems have an extremely narrow tolerance for error, often resulting in monumental impact on the public, the economy of the nation and human life. This course seeks to increase the awareness levels of ethical issue for industry professionals and to provide the necessary skills to effectively deal with such critical problem solving issues. Topics include complex systems ethical decision making, safety with human factors emphasis, applied ethics for members of complex systems, corporate culture and risk management theory, moral and values. Students cannot get credit for AVN 201 and 201W; AVN 201W can be used to fulfill the writing intensive requirement. Prerequisite(s): EGL 101 Credits: 3
(3,0)

AVN 202 Aviation Meteorology

A basic course in Aviation Weather. Weather theory including differential heating, air mass development, wind frontal activity and systems, weather hazards, weather reporting and weather forecasting is covered. Charts which are studied include Surface Analysis and Weather Depiction Charts, Constant Pressure Charts, Composite Moisture Stability Charts. Prerequisite(s): AVN 104 with a grade of C or higher Credits: 3
(3,0)

AVN 208 Instrument Pilot Ground

Instrument Pilot Ground training will enable the student to meet the prerequisite(s) specified in 14 CFR Part 61.65(b), or 14 CFR Part 141 Appendix C, as appropriate. Selected subject areas will include Federal Aviation Regulations that apply to flight operations under IFR, appropriate information that applies to flight operations under IFR in the "Aeronautical Information Manual," Air Traffic Control system and procedures for instrument flight operations, IFR navigation and approaches by use of navigation systems, use of IFR enroute and instrument approach procedure charts, procurement and use of aviation weather reports and the elements of forecasting weather trends based on that information and personal observation of weather conditions, safe and efficient operation of aircraft under instrument flight rules and conditions, recognition of critical weather situations and wind shear avoidance, aeronautical decision making and judgment, and crew resource management, including crew communication and coordination. A grade will be issued upon taking the FAA "Knowledge Examination" necessary for the Instrument Pilot Rating. Prerequisite(s): AVN 104 and AVN 105 with a grade of C or higher FAA Private Pilot Knowledge Test (with a grade of 70 or better). Credits: 3
(3,1)

AVN 209 Instrument Pilot Flight

Instrument Pilot Flight training will enable the student to meet the prerequisite(s) specified in 14 CFR Part 61.65, or 14 CFR Part 141 Appendix C, as appropriate. Instrument Pilot Flight will enable the student to meet the requirements necessary to obtain an Instrument Rating. Selected subject areas will include airplane attitude control by reference to instruments, use of full and partial panel reference, accurate use of navigation systems by maintaining positional awareness, holding patterns, instrument approaches, and IFR cross country procedures. A grade will be issued upon taking the FAA Instrument Rating practical exam. Students must possess an FAA Private Pilot Certificate/FAA 3rd Class or higher Medical Certificate. Aero fees will be charged. Note: FAA minimum hours approved are 35 total hours for AVN 209. Prerequisite(s): AVN 106 with a grade of C or higher Corequisite(s): AVN 208 Credits: 1
(0,0,4)

AVN 211 Commercial Pilot Ground

Commercial Pilot Ground Training will enable the student to meet the prerequisite(s) specified in 14 CFR Part 61.125(b), or 14 CFR Part 141 Appendix D, as appropriate. Selected subject areas will include: accident reporting requirements of the National Transportation Safety Board, basic aerodynamics and the principles of flight, meteorology to include recognition of critical weather situations, wind shear recognition and avoidance, and the use of aeronautical weather reports and forecasts, safe and efficient operation of aircraft weight and balance computations, use of performance charts, significance and effects of exceeding aircraft performance limitations, use of aeronautical charts and a magnetic compass for pilotage and dead reckoning, use of air navigation facilities, aeronautical decision making and judgment, principles and functions of aircraft systems, maneuvers, procedures, and emergency operations appropriate to the aircraft, night high altitude operations, procedures for operating within the National Airspace System, and procedures for flight and ground training for lighter than air ratings. A grade will be issued upon taking the FAA "Knowledge Examination" necessary for the Commercial Pilot certificate. Prerequisite(s): AVN 106 and AVN 208 with a grade of C or higher; FAA Instrument Rating Knowledge Test (with a grade of 70 or better). Credits: 3
(3,0)

AVN 212 Commercial Pilot Flight

Commercial Pilot Flight training will enable the student to meet the prerequisite(s) specified in 14 CFR Part 61.129 or 14 CFR Part 141 Appendix D, as appropriate. Commercial Pilot Flight will enable the student to meet the requirements necessary to obtain a Commercial Pilot Certificate. Selected subject areas include accurate planning of VFR cross country flights, pilotage, dead reckoning, navigation systems, and commercial maneuvers as well as provide the skill necessary to safely fly a complex airplane. A grade will be issued upon taking the FAA Commercial Pilot practical exam. Students must possess a FAA 3rd Class or higher Medical Certificate. Aero Fees will be charged. Note: FAA minimum hours approved are 65 total hours for AVN 212. Prerequisite(s): AVN 209 with a grade of C or higher Corequisite(s): AVN 211 Credits: 1
(0,0,4)

AVN 230 Airline Management

This course will give the students an integrated study of airline operations and functions. Domestic and international regulation of air carries and the industry's changing structure due to alliances and globalization are addressed. Topics include the annual profit plan, uniform system of accounts and reports, demand analysis, scheduling, the theory of pricing, fleet planning, facilities planning, airline financing, airline economics, airline marketing and pricing, computer reservation and revenue management systems, fleet planning and scheduling, aircraft maintenance aircraft finance, labor relations, organizational structure, and strategic planning. Prerequisite(s): AVN 101 with a grade of C or higher. Credits: 3
(3,0)

AVN 270 Introduction to Airports Management

An introductory course, which provides foundational information and strategic concepts about the air transport/ airport system. Topics include: Overview of Air Transport/ Airport system, Department of Transportation/Federal Aviation Administration, Intro to Airports/ Management, Organizational Development, Management Roles and Theories, Motivational and Communications Principles/Processes. Prerequisite(s): AVN 101 with a grade of C or higher Credits: 3
(3,0)

AVN 271 Airport Capacity/Delay/Airspace Environment

This course covers the following topics: Airport Capacity and Delay, Technological and Weather Solutions, Air Traffic Control, U.S. Airspace, Air Navigation and Navigational Aids Runway Lighting Systems, FAA FAR Part 77, Environmental Regulations and Airport Noise, Land Use Compatibility. Prerequisite(s): AVN 101 with a grade of C or higher Credits: 3
(3,0)

AVN 280 Introduction to Air Cargo Operations

The course introduces the student to the growing, technical and multi-faceted air cargo industry. The student will understand the role that air cargo has played in the development of the air carrier industry, contractual and legally binding regulations, and national and international trade. A visit to off-campus air cargo facilities will compliment classroom discussions, lectures and videos. Prerequisite(s): AVN 101 with a grade of C or higher or CRJ 100 Credits: 3
(3,0)

AVN 281 Air Cargo Government and Industry Regulations

This course exposes the student to the study and process of regulations of the Air Cargo Industry. It includes a study of and compliance with government and air carrier regulations; with practical applications of the specialized manuals and penalties of non-compliance. It includes the influence that organizations such as ICACO and IATA have on the Air Cargo industry. Prerequisite(s): AVN 101 with a grade of C or higher Credits: 3
(3,0)

AVN 291 Air Cargo Cooperative Experience

This Cooperative Experience or Internship is an elective for second year Aviation Administration students. The course will provide employer/ student designed internship experience. The student will acquire work skills and cooperative attitudes that will complement and enhance the academic competencies learned during the prior year. Credits: 3
(0,10 to 12)

AVN 300 Government in Aviation

This course expands and focuses on many of the regulatory subjects in AVN 101 (Aviation History). It is a study of the constitutional, legislative, executive and judicial control of aviation from the local, state, federal and international perspective. This course forms the foundation for AVN 400 Aviation Law. Students who take AVN 300W cannot receive credit for AVN 300. AVN 300W can be used to fulfill the writing intensive requirement. Prerequisite(s): AVN 101 with a grade of C or better or CRJ 100, Junior or Senior status required. Credits: 3
(3,0)

AVN 309 Certified Flight Instructor- Ground

This course will allow students to meet the requirements as specified by 14 CFR Part 61.185 or 14 CFR Part 141 Appendix F, as appropriate, and will allow students to meet the requirements necessary to complete the Certified Flight Instructor Written Exams: Fundamentals of Instruction (FOI), Certified Flight Instructor Airplane (FIA), and the Certified Flight Instructor Instrument Written Exam (CFII). Selected subject areas will include applicable Federal Aviation Regulations of this chapter that relate to Certified Flight Instructor pilot privileges, limitations, and flight operations, the fundamentals of instructing, including: the learning process; elements of effective teaching; student evaluation and testing; course development; lesson planning; and classroom training techniques. Also included are the aeronautical knowledge areas for a recreational, private, and commercial pilot certificate applicable to the aircraft category for which flight instructor privileges are sought. A grade will be issued based on the completion of the following written exams: the student will either take the FAA "Knowledge Examinations" (Written Exams) necessary for the Certified Flight Instructor Certificate; Fundamentals of Instructing (FOI), Flight Instructor Airplane (FIA), and the Flight Instructor Instrument Written Exam (FII) or the FAA "Knowledge Examinations" (Written Exams) necessary for the Advanced Ground Instructor Certificate; Fundamentals of Instructing (FOI), Advanced Ground Instructor (AGI), and the Instrument Ground Instructor (IGI). Prerequisite(s): AVN 211 and AVN 209 with a grade of C or higher. Credits: 3
(3,0)

AVN 310 Certified Flight Instructor-Flight

This course will allow students to meet the requirements as specified by 14 CFR Part 61.187 or 14 CFR Part 141 Appendix F, as appropriate, and will allow students to meet the requirements necessary to complete the Certified Flight Instructor Airplane Practical Exam. Selected subject areas will include applicable Federal Aviation Regulations of this chapter that relate to Certified Flight Instructor pilot privileges, limitations, and flight operations, the fundamentals of instructing, including: The learning process; elements of effective teaching; student evaluation and testing; course development; lesson planning; and classroom training techniques. Also included are practical flight training modules necessary to gain the required aeronautical experience and proficiency applicable to recreational, private, and commercial pilot certificates appropriate to the aircraft category/class for which flight instructor privileges are sought. A grade will be issued upon taking the FAA Certified Flight Instructor Certificate. Students must possess an FAA Commercial Pilot Certificate with Instrument Privileges/FAA 3rd Class or higher Medical Certificate. Aero Fees will be charged. Prerequisite(s): AVN 212 with a grade of C or higher Corequisite(s): AVN 309 Credits: 1
(0,0,4)

AVN 320 Air Carrier Flight Operations

A study of the operational considerations and procedures of air carrier flight operations. Flight Operations conducted under 14CFR121 (Part121 air carriers) are highlighted. Also included are 14CFR135 (Part135) Air Carriers, supplemental air carriers and Operators of Large Aircraft flight operations. Prerequisite(s): AVN 208 with a grade of C or higher Credits: 3
(3,0)

AVN 321 Physiology of Flight

Operational and lifestyle considerations and consequences arising from physiological factors will be introduced, with an emphasis on the atmosphere and high-altitude flight (Hyperbarism). General fundamentals of anatomy and psychology will be reviewed to impart career-prolonging health maintenance and stress reduction techniques. Subtle yet critical aviation issues such as situational awareness and crew resource management will be explored. Prerequisite (s): AVN 202 with a grade of C or higher Credits: 3
(3,0)

AVN 322 Advanced Aircraft Systems

This course exposes the student to the advanced aircraft systems commonly found in air carrier aircraft. Included are Electrical Systems, Hydraulics, Pneumatics, Flight Controls, Landing Gear Systems, Auto-Pilots and Cockpit Automation, Master Warning and Caution Annunciation Systems. At the conclusion of this course, the student should have a good level of operational understanding of these systems. Prerequisite(s): AVN 211 Credits: 3
(3,0)

AVN 323 Air Carrier Flight Planning

This course exposes the student to the area of flight planning for the major carrier's operations. The main area of study will include the following subjects: High Altitude Aviation Meteorology, Transport Category Aircraft weight and balance, Take-off, En-route and Landing Performance and Emergency Procedures. Advanced Flight Planning, Jet Route Structure. Jeppesen IFR High Altitude En-route Charts. NOS and Jeppesen IFR Approach Plates and Published Minimums; U.S. Air Traffic Control Systems/Airspace; Airline Positive Operational Control Concepts; Federal Aviation Regulations Part 121/1199/135; Airline Communications Systems- Secal/ARINC/ACARS/Satcom Captain/Dispatcher Joint Authority/Decision Making. Prerequisite(s): AVN 322 Credits: 3
(3,0)

AVN 330 Airline Marketing

This course examines the principles of marketing used by the major U.S. airlines and how they are applied for long term financial success in the industry. There will be an initial review of the structure of the air transport market and the industry marketing environment. This will be followed by a detailed study examining the airline business and marketing strategies, product design, pricing, revenue management, distribution channels, and selling and advertising policies. Prerequisite(s): AVN 101 with a grade of C or higher Credits: 3
(3,0)

AVN 370 Airport Financial Management

This course covers the following topics: Financial Management Managerial Accounting, Airport Fees, Rates, Charges, Airport Capital Development/Funding, Airport Improvement Program (AIP) Funding, Passenger Facility Charge (PFC) Funding. Prerequisite(s): AVN 270 with a grade of C or higher. Corequisite(s): BUS 201 Credits: 3
(3,0)

AVN 371 Airport Planning

This course covers the following topics: Airport System Planning, National Plan of Integrated Airport Systems (NPIAS), Metropolitan Airport System Planning, State Airport System Planning, Airport Master Planning, Airport Layout Plans, Airport Design, Design of Other Landing Facilities, Industrial Park Design, Terminal Planning/ Design/ Operation, Other Terminal Area Buildings, Americans with Disability Act Access. Prerequisite(s): AVN 270 with a grade of C or higher. Credits: 3
(3,0)

AVN 380 Air Cargo Sales Management

The students will be introduced to the topic through a variety of pedagogical methods that will include lectures, hands-on use of the most prominent manuals, regulations related to the industry, group discussions and videos. Prerequisite(s): AVN 280 Credits: 3
(3,0)

AVN 381 Air Cargo Management Techniques

This course will provide students with an overview of the air cargo management in relation to leadership, safety, cost effectiveness, and problem solving. This course will cover various managerial topics that pertain to air cargo operations, with a particular focus on identifying staffing needs, providing acceptable customer service, determining practical goals for maintaining service levels over an extended period of time. This course will also review IATA rules and regulations, and provide students with practical in-class exercises which will focus on developing operational flight schedules for an air cargo operator while maintaining the objective of remaining compliant with various human resources and labor regulations. Prerequisite(s): AVN 280 Credits: 3
(3,0)

AVN 400 Aviation Law

Aviation Law develops the student's knowledge to the application level of learning by emphasis on real cases to demonstrate the legal, regulatory and government theory previously discussed in AVN 101and AVN 300. Emphasis will be on the FAA's roles in regulating aviation including the rule making process, certification of airmen, medical certification and enforcement. Prerequisite(s): AVN 300 or AVN 300W with a grade of C or higher. Credits: 3
(3,0)

AVN 401 Aviation Economics

This course covers the economic history of the air carrier industry from 1911 to the present. The details of airline deregulation prior to 1978 are discussed as is the transition from regulation to deregulation- 1978 to present and Marketing and financial practices as they exist today under deregulation. Prerequisite(s): ECO 156, AVN 270 with a grade of C or higher Credits: 3
(3,0)

AVN 404 Corporate and Business Aviation

Study of the flight operations, administration, maintenance and financial functions of a corporate flight department. The FBO and small airplane business will be discussed including applications in aerial photography and spraying, aircraft sales and financing. Prerequisite(s): AVN 300 or 300W Credits: 3
(3,0)

AVN 410 Commercial Multi-Engine Pilot Rating

This course prepares the Commercial Pilot with single-engine and instrument ratings to add multi-engine airplane privileges to his/her certificate. Commercial Pilot Flight training will enable the student to meet the prerequisite(s) specified in 14 CFR Part 61.63 or 14 CFR Part 141.57, as appropriate. Additionally, the student will gain practical experience applying the concepts of Crew Resource Management in the cockpit by utilizing a series of Flight Training Device sessions and defined flight training sessions. The student will be introduced to multi crew operations by applying newly acquired skills applicable to the multi crew environment such as Pilot Flying, Pilot Monitoring, advanced aircraft briefings, emergency and abnormal situations in various phases of flight, cockpit automation, Crew Resource Management to include crew communication and coordination, and Aeronautical decision making and judgment. Students must possess an FAA Commercial Pilot Certificate/FAA 3rd Class or higher Medical Certificate. Aero Fees will be charged. A grade will be issued upon taking the FAA Commercial Multi-Engine Practical Exam. Prerequisite(s): AVN 209 and AVN 212 with a grade of C or higher. Credits: 1
(0,0,4)

AVN 411 Certified Flight Instructor Instrument

This course prepares the student with a CFI to acquire the Flight Instructor -Instrument rating. Training will consist of at least 20 hours flight and 15 hours ground instruction. Passing the FAA Flight Instructor-Instrument Airplane Knowledge test and the FAA flight test will complete the course. Aero fees will be charged. Prerequisite(s): AVN 310 with grade of a C or higher Credits: 2
(1,0,3)

AVN 412 Certified Flight Instructor-Multi-Engine

This course prepares the student with a CFI to acquire the Flight Instructor – Multi Engine Rating. Training will consist of at least 25 hours flight and 20 hours ground instruction. Passing the FAA Flight Instructor Multi Engine Knowledge test and the FAA flight test will complete the course. Aero fees will be charged. Prerequisite(s): AVN 310 and AVN 410 with a grade of C or higher Credits: 1
(0,0,4)

AVN 417 Homeland Security in Aviation

This course will expose the student to the importance of Homeland Security in the aviation industry and the important role each employee in the industry is charged with. Students will gain experience in identifying false travel documents and identifying suspicious air travelers. This course will focus on current national security threats in the aviation industry. Upon the successful completion of this course the students will meet the requirements of the initial and recurrent security training requirements mandated by the Transportation Security Administration (TSA) under Title 49 CFR 1552. Prerequisite(s): AVN 300 or 300W with a grade of C or higher. Credits: 3
(3,0)

AVN 421 Gas Turbine Engines

An in-depth study of gas turbine engines as found in air carrier and high performance aircraft. Topics include the history of turbine development, jet propulsion, theory engine design and construction and control systems. FAA Commercial Pilot Certificate with Instrument Rating required. Prerequisite(s): AVN 321 Credits: 3
(3,0)

AVN 422 Aerodynamics and Aircraft Performance

Advanced aerodynamic principles will be introduced following extensive review of fundamentals. Emphasis will be on practical design and performance considerations including mission, cost, and feasibility. This course will familiarize the student with the application of aeronautical principles and design practices. The course will focus steps in preliminary design of general aviation aircraft with emphasis on the iterative aspects of design. Prerequisite(s): AVN 211 with a grade of C or higher and PHY 136 Credits: 3
(3,0)

AVN 423 Crew Resource Management

This course deals with flight-crew decision making. It includes, but is not limited to: optimum decision-making techniques; personality profiling; crew communication; high risk areas of a flight; maintaining situational and spatial awareness; crew discipline; and airline-level standard operating procedures. Prerequisite(s): Junior Advances Standing and Completion of an AVN 300W level course. Credits: 3
(3,0)

AVN 424 Advanced Avionics and Cockpit Automation

Introduction to modern cockpit avionics suites as found in corporate Jets and Transport Category aircrafts. Principles, operations and limitations of advanced avionics suites typically found in this category aircraft. Automation topics covered include automatic flight control and flight director systems, stability augmentation systems, power management systems, flight management systems and autoland/go around systems. Latest technology navigation systems topics including inertial navigation systems (INS), inertial reference systems (IRS), Global Positioning Systems (GPS) including Local Area Augmentation Systems (LAAS) and Wide Area Augmentation System (WAAS). Prerequisite (s): AVN-209 with C or higher and AVN-211 with a grade of C or higher. Credits: 3
(3,0)

AVN 425 Safety of Flight

Safety of Flight is an essential course for students to understand the principles and regulatory practices of commercial aviation safety in the United States and worldwide community in the 21st century. It includes an examination of aircraft accidents, the respective roles of the FAA and NTSB, human factors in aviation safety, air traffic safety systems, and introduction to Safety Management Systems (SMS). The student will obtain the necessary safety of flight knowledge to be able to effectively work in the aviation industry. At the completion of the course, students will be able to assess contemporary issues in safety of flight and demonstrate understanding of aviation safety and human factors. Prerequisite(s): AVN 209 with a grade of C or higher and AVN 211 with grade of a C or higher. Credits: 3
(3,0)

AVN 432 Aviation Insurance

This course covers the basic foundations of Aviation Insurance and Risk Management. Topics to be covered include hull and liability coverage, subrogation and the insurer's interests after covering a loss, underwriting and claims management. This course helps students to explain the various types of insurance coverage found in aviation such as, hangar keepers, employers, pilots, airlines and airport operators. Prerequisite(s): AVN 400 Credits: 3
(3,0)

AVN 440 Commuter Turboprop Training

This course exposes the student to an actual air carrier transport aircraft initial training ground school. The course will examine all of the specific aircraft and engine systems for this airplane and will be conducted so as to simulate the intensity of an airline training course. All major systems and subsystems of the aircraft as well as its limitation and normal and emergency operating procedures will be covered in detail. At the conclusion of this course, the student should be able to pass an airline style written and oral exam on the aircraft. Prerequisite(s): AVN 322 and AVN 421 Corequisite(s): AVN 424
Credits: 3
(3,0)

AVN 443 Specialty Flying

Specialty flying is a vital area in General Aviation although it does not attract the attention that airline and military flying do. This course will deal with Agricultural Aviation; Bush Flying using float, large wheel and ski equipped aircraft. Credits: 3
(3,0)

AVN 447 Capstone Professional Pilot Seminar

The Capstone Pro Pilot Seminar will be the culminating Upper Division experience in flight education for the Professional Pilot program. The seminar will require students to examine key aviation concepts presented in the Pro Pilot track and connect key learning objectives associated with these concepts to the skills necessary for success in the aviation industry as a pilot. Selected subject areas will include but not be limited to aviation safety, aviation law, crew resource management, safety ethics, physiology of flight, and aviation meteorology and how these relate to the requirements to be a certificated instrument-rated commercial pilot and fly as a certified flight instructor or a multiengine airplane pilot. Students will be required to complete comprehensive case studies of aviation accidents, present results to the seminar participants and lead the case discussion. A Capstone mentorship flight or simulator event summarizing the key course concepts will be included as part of the course (flight fees as applicable). Prerequisite(s): AVN 209 with C or higher.   Credits: 3
(3,1)

AVN 470 Airport Operations

This course covers the following topics: Airport Operations and FAA FAR Part 139, FAR Part 139, Airport Self Inspection, Pavement Surfaces, Movement and Safety Areas, Airfield Lighting and Pavement Marking, Snow and Ice Control, Snow Removal Equipment, Airport Condition Reporting, Ground Vehicles, Public Protection, Wildlife Hazard Management, Airport Emergency Plan and Response, Airport Air Carrier Security. Prerequisite(s): AVN 270 with a grade of C or higher Credits: 3
(3,0)

AVN 471 Aviation Administration Seminar

This seminar is the capstone course for students majoring in Aviation Administration. It is designed to integrate all the topics that students have learned during their courses of study. The class will include practical preparation for a career in aviation, and students will have opportunities during the semester to participate in industry visits/observations in order to get a better understanding of future job options and placement. The students' main focus during the semester will be a detailed research project which will allow them to demonstrate what they have learned throughout the program. The research project will culminate in a formal presentation of results to members of the university community and also representatives from industry. Prerequisite(s): AVN 470 or AVN 480 with a grade of C or higher
Credits: 3
(3,0)

AVN 480 Air Cargo Operations-Advanced

The course will expand upon the introductory concepts learned in AVN 280. Students will be exposed to various in-class exercises that will address the importance of identifying the variables involved in the flow of typical air cargo operations. Students will gain expertise in "troubleshooting" and solving problematic situations such as flight delay due to mechanical and/or weather; late delivery of high priced cargo products; emergency response to live animal and/or perishable equipment; damage to aircraft and/or cargo ULDs or other equipment; and employee injury. The real world applications of Quality Work Programs (QWP) and current advances in air cargo automation and/or computer controlled processes will be explored. Communication skills in air cargo operations management will also be stressed. Prerequisite(s): AVN 280 Credits: 3
(3,0)

AVN 490 Aviation Internship

This course is designed to give students the opportunity to earn elective credit for acquiring hands-on industry experience. Prior work site approval by the Aviation Department is required before enrolling in this course. Prerequisite(s): Completion of 30 credits with an overall GPA of 2.5. Credits: 3
(1,0,6)

COMPUTER SYSTEMS

BCS 101 Programming Concepts and Problem Solving

This course will provide an introduction to programming logic and problem solving techniques using different programming languages. The topics covered in this course will provide the skills needed to learn languages such as Visual Basic, C+ + and JAVA. Topics include such items as constants and variables, data types, scope of variables, basic logic constructs, subroutines and functions. Students who have completed BCS 120 or equivalent cannot take BCS 101. Credits: 3
(3,0)

BCS 102 Computer Concepts and Applications

This is an introductory course in the use of personal computers in today's society. Students will receive instruction in basic computer concepts and terminology, the fundamentals of the Windows operating system and have hands on experience at the beginning to intermediate level using Microsoft Word, Excel, and PowerPoint. The Internet will be used to supplement textbook and lecture materials. Computer Systems students cannot use BCS 102 to meet a BCS Elective requirement.
Credits: 3
(3,0)

BCS 110-114 Introductory Special Topics in Computer Programming and Information Systems

This course will cover introductory topics that are not covered in the regular curriculum. Topics may vary from semester to semester and reflects the interests and needs of students, faculty and industry. Permission of Department Chair is required. Prerequisite(s): Permission of Department Chair Credits:3
(3,0)

BCS 120 Foundations of Computer Programming I

This course introduces the C++ Programming Language as a means of developing structured programs. Students will be taught to develop algorithms using top-down stepwise refinement. Students will be introduced to the concept of Object Oriented programming. In addition, students will get a thorough exposure to C++ syntax and debugging techniques. Credits: 3
(3,0)

BCS 130 Website Development I

In this course, students will use both HTML and CSS to modify the appearance of Web page content and layout. Hypertext Markup Language (HTML) is a standardized code used to format web pages. Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language, such as HTML. In addition, students will learn the principles of Responsive Web Design to create an optimal viewing experience irrespective of the device used to display the Web page. Credits: 3
(3,0)

BCS 160 Computers, Society and Technology

This is an introductory course that provides students with the knowledge to stay current and informed in a technology-oriented, global society. Students will receive instruction in basic computer concepts and terminology, the fundamentals of the Windows operating system and have hands-on experience at the beginning to intermediate level using Microsoft Excel and Access. The Internet will be used to supplement textbook and lecture materials. Note: Students taking this course may not receive credit for BCS 102 or 202. Credits: 3
(3,0)

BCS 208 Introduction to Networks

This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IPv4 and IPv6 addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. By the end of the course, students will be able to build simple LAN's, perform basic configurations for routers and switches, and implement IP addressing schemes. The laboratory component of this course will give the students hands-on experience configuring equipment needed to build a LAN. Prerequisite(s): Sophomore status Credits: 3
(2,2)

BCS 209 Routing and Switching Essentials

This course describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. The laboratory component of this course will give the students hands-on experience configuring routers, switches and basic WAN connectivity. Prerequisite(s): BCS 208 with a grade of C or higher
Credits: 3
(2,3)

BCS 215 UNIX Operating Systems

This course develops the fundamental knowledge of computer operating systems using UNIX. Topics include basic understanding of the UNIX system, utilizing the file system, programming language and security system. BCS 120 may be taken as a Prerequisite or Corequisite. Prerequisite(s): BCS 120 Corequisite(s): BCS 120 Credits: 3
(3,0)

BCS 230 Foundations of Computer Programming II

This course expands the knowledge and skills of Foundations of Computer Programming I. Among the topics covered are: arrays, pointers, strings, classes, data abstraction, inheritance, composition and overloading. Prerequisite(s): BCS 120 with a grade of C or higher
Credits: 3
(3,0)

BCS 232 Electronic Commerce

This cross-listed business management and business computer systems course covers electronic commerce (EC) foundations, retailing methodologies, and marketing research. Focus will be on the various forms, strategies, and implementations of EC including business-to-business (B2B), business-to-consumer (B2C), and consumer-to-consumer (C2C). Also covered will be social networking, electronic payment systems, and public policy issues including privacy and intellectual property matters as well as recent information technology advancements. Students completing BCS 232 may not receive credit for BUS 232. Prerequisite(s): BUS 109 and BCS 101 or BCS 102 Credits: 3
(3,0)

BCS 235 JavaScript and jQuery

This course introduces students to JavaScript and jQuery. Students will learn how to write their own scripts in JavaScript, learn jQuery syntax, and use the jQuery and jQuery UI libraries. Students will learn how to devise jQuery and jQuery UI scripting techniques such as effects, animation, tabbed panels, menus, accordions, content sliders, drag and drop, tooltips, date pickers, custom tooltips, dialogs and portlets, and interactive image sliders and carousels. Students who have taken BCS 250 cannot receive credit for this course. Prerequisite(s): BCS 130 with a grade of C or higher. Credits: 3
(3,0)

BCS 240 Website Development II

In this course, students will learn how to create websites that deliver a seamless experience across a diverse range of desktop, mobile, and handheld devices. In addition, students will learn how to perform forms validation, create navigation and menuing systems, build responsive layouts with flexible content, code media queries, and create and modify template and child pages. Students will use CSS 3 and a Content Management System to create user interfaces with toolbars, animations, buttons, forms, lists, events, and themes. Prerequisite(s): BCS 130 with a grade of C or higher Credits: 3
(3,0)

BCS 255 Operating Systems

This course develops the fundamental knowledge of computer operating systems. Topics included in this study are types of operating systems, facilities and features of the different systems and user techniques. Credits: 3
(3,0)

BCS 260 Introduction to Database Systems

This course provides the fundamental knowledge of database concepts. Topics studied will include the history and advantages of database systems, and the process of database design including entity-relationship diagrams and database normalization. Students will have hands-on experience using SQL (Structured Query Language). Prerequisite(s): BCS 120 and BCS 160 all with a grade of C or higher Credits: 3
(3,0)

BCS 262 Data Communications

This course is an introduction to the concepts and applications of computer networking and its role in the business world today. Topics include: history of networking and applications, voice and data communications, hardware, transmission, network topologies, network analysis, the OSI model, design, implementation and management issues. Credits: 3
(3,0)

BCS 300 Management Information Systems

Managers have increasing responsibility for determining their information system needs and for designing and implementing information systems that support these needs. Management information systems integrate, for purposes of information requirements, the accounting, finance, and operations management functions of an organization. This course will examine the various levels and types of software and information systems required by an organization to integrate these functions. Prerequisite(s): BUS 109 or BUS 111 Credits: 3
(3,0)

BCS 301 Systems Analysis and Design

This course explores the major issues in the analysis and design of a system, including methods of data collection, information requirements analysis, and the analysis process are discussed. Emphasis is placed on the importance of the user in the design process and focuses on approaches that improve the successful implementation of a computer system. Topics include general systems theory, Systems Development Life Cycle, data flow diagrams, data dictionary, hardware and software evaluation, feasibility analysis, CASE tools and prototyping. Students are required to demonstrate their skill in using project management and diagramming application software. Note: Credit cannot be given for both BCS 265 and BCS 301. Prerequisite(s): BCS 120 with a grade of C or higher and Junior Level Status. Credits: 3
(3,0)

BCS 302 Systems Analysis and Design II

This is an advanced course in Systems Analysis and Design. Students will utilize the tools covered in BCS 301 to analyze system designs. Topics covered in the design phase will include input, output, and database and user interface design. A CASE Tool and/or other rapid application development tools will be used to create the interfaces. Additional topics in the implementation and maintenance phases will include testing, implementation and maintenance. Object-oriented systems and UML will also be covered. Students will analyze and prepare various case projects and will present and document their results. Prerequisite(s): BCS 301 with a grade of C or higher. Credits: 3
(3,0)

BCS 303 XML

Students will be introduced to the basic intermediate concepts of XML, the Extensible Markup Language. Students will learn how to create the XML document, work with name- spaces, Document Type Definitions, and XML schemas. In addition, students will also use the advanced features of XML, such as XPath and the XSLT stylesheet language to transform XML documents. Prerequisite(s): BCS 130 and BCS 120 all with a grade of C or higher Credits: 3
(3,0)

BCS 305 Data Visualization

Data visualization describes any effort to help people understand the significance of data by placing it in a visual context. Patterns, trends and correlations that might go undetected in text-based or spreadsheet data are recognized using data visualization software. In this course, students will use data visualization software to display data using infographics, dials and gauges, geographic maps, spark lines, and heat maps, as well as creating detailed bar, pie, and fever charts. These maps and charts will include interactive capabilities, enabling users to manipulate the data or drill into the data for querying and analysis. Prerequisite(s): BCS 300 with a grade of C or higher Credits: 3
(3,0)

BCS 311 Local Area Networks and Server Administration

This course will provide an introduction to local area networking concepts. These ideas will be explored in conjunction with an introduction to the concepts and tools necessary to implement, administer and troubleshoot the Microsoft Windows network. Hands-on experience will be used in the presentation of system administration tools. Prerequisite(s): BCS 262 with a grade of C or higher Credits: 3
(3,0)

BCS 315 UNIX Operating Systems II

This course further develops the knowledge of UNIX with an emphasis on the practice skills required to deploy and administer modern Unix and Linux systems. Topics include selecting and installing operating systems, adding users, virtualization, and the configuration and management of storage, networks and servers. Particular stress is paid system administration practices that foster the creation and maintenance of scalable and secure systems. Prerequisite(s): BCS 215 with a grade of C or higher. Credits: 3
(3,0)

BCS 316 PERL Programming

This course provides an introduction to programming in the Perl language. Students will learn the Perl syntax, the basics of using regular expressions, how to use Perl data types, and how to access and manipulate files. Students are also introduced to database connectivity and debugging techniques. Prerequisite(s): BCS 215 and BCS 230 all with a grade of C or higher. Credits: 3
(3,0)

BCS 317 Enterprise Resource Planning

Enterprise Resource Planning (ERP) is an organizational and information systems approach that integrates planning, customer relationship management, decision making, master scheduling, material requirements planning, marketing, forecasting, sales, finance, electronic commerce, and human resources. The course will include lectures and extensive use of supporting ERP software. Note: Students who have previously completed IND 313 cannot receive credit for BUS/ BCS 313. Students completing this course cannot receive credit for BUS 317. Prerequisite(s): BUS 109 Credits: 3
(3,0)

BCS 318 Virtualization and Cloud Computing

This course explores installation, configuration, and management of VMware® vSphere™, which consists of VMware ESXi/ESX™ and VMware vCenter™Server. In addition, use of Virtualization Servers with Storage Area Networks and Network Attached Storage Technologies will be discussed. This advanced course prepares the student to understand OS virtualization, Storage Virtualization, and Cloud Computing. Prerequisite(s): BCS 215 and BCS 262 with a grade of C or higher Credits: 3
(3,0)

BCS 320 Scaling Networks

This course describes the architecture, components, and operations of routers and switches in a larger and more complex network. Students learn how to configure routers and switches for advanced functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, STP, and VTP in both IPv4 and IPv6 networks. Students will also develop the knowledge and skills needed to implement DHCP and DNS operations in a network. Note: Students who have completed BCS 330 or BCS 335 may not receive credit for BCS 320.
Prerequisite(s): BCS 209 with a C or higher. Credits: 3
(3,0)

BCS 321 Connecting Networks

This course discusses the Wide Area Network (WAN) technologies and network services required by converged applications in a complex network. The course enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Students will also develop the knowledge and skills needed to implement IPSec and virtual private network (VPN) operations in a complex network. Note: Students who have completed BCS 330 or BCS 335 may not receive credit for BCS 321. Prerequisite(s): BCS 209 with a grade of C or higher Credits: 3
(3,0)

BCS 332 Fundamentals of Assembly Language Programming

This course provides an introduction to assembly language programming. Concepts discussed include basic computer organization and architecture, instruction set design, the call stack, data representation, addressing, and I/O. A number of programming assignments give students the opportunity to practice assembly language on one or more architectures chosen by the instructor.
Prerequisite(s): BCS 230 Credits: 3
(3,0)

BCS 340 Introduction to Algorithms

This course provides an introduction to efficient solutions for a variety of algorithmic problems commonly encountered in application programming. Problems are discussed and students are guided through the discovery of progressively more efficient solutions. Areas to be discussed may include trees, graphs, sorting, searching, and testing. Advanced techniques, including recursion, dynamic programming, greedy algorithms and parallel programming may be used to solve some of the problems. Small programming assignments will be required to illustrate an understanding of the details of the algorithms.
Prerequisite(s): BCS 230 with a grade of C or higher. Credits: 3
(3,0)

BCS 345 JAVA Programming

This course is designed for students with some experience with programming. The syntax of the Java programming language, object-oriented programming, creating graphical user interfaces (GUI), exceptions, file input/output (I/O), and how to create Java applications and applets will be covered. Prerequisite(s): BCS 230 with grade of a C or higher. Credits: 3
(3,0)

BCS 350 Web Database Development

This advanced course prepares the student to use database management systems with web server software to develop and maintain the information content of a web site. Students in the course should have prior knowledge of programming and database management systems. Prerequisite(s): BCS 260 with a grade of C or higher.
Credits: 3
(3,0)

BCS 351 Web Frameworks

In this course, students will use web frameworks, such as Bootstrap and Angular JS, which are free, open-source front-end web frameworks for designing responsive, mobile-first websites and web applications. Students will gain experience using frameworks to design HTML, JavaScript, and CSS-based design templates for typography, forms, forms validation, buttons, navigation, site layout, and other interface components, as well as optional JavaScript extensions. Prerequisite(s): BCS 130, BCS 235 both with a grade of C or higher. Credits: 3
(3,0)

BCS 360 Programming in SQL

The second in a two course sequence applies the knowledge of BCS260 to administer and implement relational database systems. Topics covered may include: embedded SQL and other mixed language mechanisms; PL/SQL; advanced/optimized SQL queries; transaction management including concurrency and recovery; schema refinement; higher-level normal forms; integrity; security; and database administration. Prerequisite(s): BCS 230, BCS 260 with a grade of C or higher. Credits: 3
(3,0)

BCS 370 Data Structures

This course will present sequential and linked representations of various built-in and abstract data structures including arrays, records, stacks, queues and trees. Algorithms will be developed relating to various sorting and searching techniques, merging and recursion. A high-level structured programming language, such as C, using both static and dynamic storage concepts, will be used in exploring and developing these algorithms. Prerequisite(s): BCS 230 with a grade of C or higher.
Credits: 3
(3,0)

BCS 372 Foundations of Theoretical Computer Science

Computer science theory has implications both for what problems programmers choose to solve and for how they solve them. This course introduces students who are familiar with the craft of programming to the underlying theory. Topics discussed include selections from automata theory, computability theory, and complexity theory.
Prerequisite(s): BCS 230, MTH 130 and Junior or Senior Status
Credits: 3
(3,0)

BCS 375 Legal and Ethical Issues in Database and System Administration

In response to privacy concerns and the growth of big data, governments have instituted legal restrictions on access to and on storage of certain forms of data, for example health records. This course explores ethical and legal issues relating to computers, with a particular emphasis on the ethical and legal obligations of system administrators and others with extraordinary access to personal data stored on computers. Prerequisite(s): BCS 215, EGL 102 and Junior Status Credits: 3
(3,0)

BCS 378 Information Security

This course introduces students to the principles and practices of computer and network security. Topics covered include fundamental concepts and principles of computer security, basic cryptography, public key infrastructure, authentication and access control, threats and vulnerabilities, intrusion detection/prevention systems and network security, operating system security, software and data security, web security, and managerial and ethical issues in computer security. Prerequisite(s): BCS 262 and BCS 230 all with a grade of C or higher Credits: 3
(3,0)

BCS 380 Advanced Database Programming

This course will provide a detailed examination of a relational database management system and its procedural language such as Oracle and PL/SQL or SQL Server and T-SQL. General programming concepts such as conditional and iterative control, error handling and built-in exceptions will be discussed. Covered in more detail will be topics such as cursors, triggers, and the stored functions, procedures and packages. These topics will then be explored through laboratory assignments using a RDBMS such as Oracle or SQL server. Prerequisite(s): BCS 360 with a grade of C or higher Credits: 3
(3,0)

BCS 390 Database Administration and Security

This course provides the knowledge necessary to handle database administration and database security. Topics studied may include installation and configuration of a database, managing and securing user resources and privileges, data integrity, networking, optimization, and backup and recovery. Hands-on activities with a major commercial DBMS will be assigned to complement the lectures and written work and to develop practical skills. Prerequisite(s): BCS 260 and BCS 215 with a grade of C or higher. Credits: 3
(3,0)

BCS 405 IS Development Project Management

This course will cover Project Management tools and techniques for Systems Development projects. Students will learn Project Management, Scope Management, Time Management, Cost Management, Quality Management, Human Resource Management and Communications Management all in the context of running successful information systems development and implementation projects. MS project will be used as a tool to managing all of these areas. Prerequisite(s): BCS 300 with a grade of C or higher. Credits: 3
(3,0)

BCS 410 Computer Architecture

Computer Architecture is the study of hardware and software components of business information systems. Thorough understanding of the workings of the digital computer system is expected. Topics include: hardware components, the machine cycle, binary arithmetic, systems software, and assembly language. These topics are evaluated with respect to their impact on the development of business information systems. Two semesters of a programming language required. Prerequisite(s): Two semesters of a programming language required with a grade of C or higher and BCS 262 with a grade of C or higher. Credits: 3
(3,0)

BCS 413 Advanced Enterprise Resource Planning

This advanced-level Enterprise Resource Planning (ERP) course includes high-level information technology coverage of Scheduling, Planning, MRP, Logistics, Warehousing, Procurement, Quality, Vendor Management, Cost Accounting, Forecasting, KPI, Supply Chain, and Customer Resource Management. Also covered are concepts and software applications pertaining to product design, development, manufacturing (production), marketing, sales, and field service. This course emphasizes proficiency in the skill sets typically required within industry practices. Prerequisite(s): BUS 300 or BCS 300 and (BUS 317 or BCS 317) Credits: 3
(3,0)

BCS 415 Operating System Internals and Design

This course will involve the study of the fundamentals of operating systems design and implementation. The concepts covered include process management, memory management, file systems, I/O system management, distributed systems, and security. Students will examine how these concepts are found in several current open-source operating systems, including Vista, UNIX and/or Linux. Prerequisite(s): BCS 215 and BCS 230 all with a grade of C or higher Credits: 3
(3,0)

BCS 420 Client/Server Computing

Included in this course are a wide range of issues, methods, techniques and case examples for developing and managing client/server and distributed systems. These include client/ server development using (RAD) methodologies, transaction process monitors, types of aboveware and middleware, middleware standards (DCE,RPC and CORBA), managing client/server environments, software installation and distribution, electronic mail architectures in C/S products. Prerequisite(s): BCS 260 Credits: 3
(3,0)

BCS 421 Android Mobile Application Development

This course provides an introduction to Android mobile application development. Techniques for designing the user interface will be discussed. The Android application lifecycle and issues related to battery life will be covered. Storing application data using a database will be explored. Students will receive hands-on experience using the Android mobile application development platform. Prerequisite(s): BCS 230 and BCS 345 with a C or higher. Credits: 3
(3,0)

BCS 422 iOS Mobile Application Development

This course provides an introduction to iOS mobile application development for Apple devices. Students will be introduced to the Swift programming language. Emphasis will be placed on good programming practices, on object oriented techniques, and on using established design patterns for mobile applications. Students will receive hands-on experience using the Xcode development environment to build example apps. Basic instruction in Objective-C will provide students with the ability to read and reuse legacy iOS code. Prerequisite(s): BCS 345 or BCS 370 with a grade of C or higher. Credits: 3
(3,0)

BCS 425 Business Intelligence and Data Warehousing

Business Intelligence is the transformation of data into actionable information. This information is used by businesses to drive high-level decision making. This course is concerned with extracting data from the information systems that deal with the day-to-day operations and transforming it into data that can be used for decision making. Students will learn how to design and create a data warehouse, and how to utilize the process of extracting, transforming, and loading (ETL) data into data warehouses. Students will design and construct dynamic reports using the data warehouse and multi-dimensional online analytical processing (OLAP) cubes as the data source. Prerequisite(s): BCS 260 with a grade of C or higher. Credits: 3
(3,0)

BCS 426 C# Programming

This course is an introduction to the C# ("C-Sharp") programming language for students with existing programming experience. The course covers the syntax of the C# programming language, .NET ("dot net") infrastructure, creating graphical user interfaces, using databases, using web services, and multithreading. Students will be required to complete a number of practical programming assignments to solidify their knowledge of the language and its application. Prerequisite(s): BCS 345 with a grade of C or higher Credits: 3
(3,0)

BCS 427 Game Programming

This course provides an introduction to two-dimensional game programming. Students will learn how to draw and manage game objects. Techniques for adding sound to a game will be discussed. Creation of computer controlled game objects will also be covered. Students will receive hands-on experience with a current game development platform. Students will be expected to create their own two-dimensional game by the end of the course. Prerequisite(s): BCS 345 with a grade of C or higher. Credits: 3
(3,0)

BCS 428 Large Software System Development

This course introduces students to the tools and processes used in software development for large systems. Through the use of open source projects, the students will explore the build environment, version control, and the testing tools used to produce code involving large numbers of programmers and product managers. Programming project management techniques, such as Agile, and best practices for programming will also be introduced and discussed. Prerequisite(s): BCS 345 and BCS 370 Credits: 3
(3,0)

BCS 430W Senior Project (Writing Intensive)

The primary objective of this course is to give Computer Programming and Information Systems students an opportunity to integrate techniques and concepts acquired in their other courses. Elements will be drawn primarily from BCS301 (Systems Analysis and Design) and BCS260 (Database), in addition to other courses in the student's selected track of study. The course is experiential in nature i.e. the student will be required to produce results for use by real individuals and will be evaluated both on process and product. In addition to prerequisites, a second level programming course with a grade of C or better, and Senior level status is required. This is a writing-intensive course. Note: Students cannot get credit for BSC 430 and 430W; BCS 430W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the Computer Programming and Info Systems Department. Prerequisite(s): EGL 101, BCS 260, BCS 230 and BCS 301 all with a grade of C or higher Credits: 3
(3,0)

BCS 440 CPIS Internship

In this course, the student works under the tutelage of a professional who serves as site supervisor in an organization that provides information services. The work done by the student is guided by learning objectives agreed to by the site supervisor, the faculty member and the student. Students are required to submit a written proposal, progress reports, and a final report on their experience to the client and to the department. The course offers an ideal opportunity to test theory in practice and to gain experience in a realistic information provision situation. The experience is expected to be mutually beneficial for the organization and student. Prerequisite(s): Junior Status and GPA >=3.0. Credits: 3
(1,0,6)

BCS 450-451 Special Topics in Computer Programming and Information Systems

Courses that range from 450-451 will cover topics not covered in the regular curriculum. Topics may vary from term to term and reflect the interests of students, faculty and industry. Topics may include wireless communications, rapid application development and other emerging technologies. Prerequisite(s): Permission of Department Chair
Credits: 3
(3,0)

BCS 460 Independent Study

This is an independent study course designed to offer the student experience in research of a specialized area of interest. The student will have an opportunity to work individually or with a group in designing, developing and presenting a research project. The topic must be approved by a faculty member. Students will be required to submit full documentation and present their final results. Prerequisite(s): Permission of Department Chair Credits: 3
(3,0)

BIOLOGY

BIO 120 General Biology

A survey of life from the standpoint of humans, including structural and behavioral evolution, functional characteristics, and relationship to the natural world. Recent developments in Biology are explored, including applications of DNA analysis and recombinant DNA technology. The laboratory exercises involve simple investigations of the life processes by utilizing basic research tools. A range of life forms are studied in the laboratory, with particular emphasis on animals ranging from planaria to preserved frogs. Note: BIO 120 is approved in the Natural Sciences General Education Competency Area and can serve as a lower-level laboratory science elective within the Liberal Arts. However it does not satisfy Bioscience Core requirements and cannot be used as a substitute for either BIO 130 or BIO 131. Note: The laboratory course, BIO 120L is a part of your grade for this course. Corequisite(s): BIO 120L Credits: 4
(3,2)

BIO 121 Health, Heredity, and Behavior

Health, Heredity, and Behavior is a 3 credit, non-lab course. It focuses on the most common and clinically significant diseases and conditions that afflict modern developed societies, first building a foundation of the basic anatomy and physiology necessary to understand the disorder, then exploring the experiences of the people afflicted. The inherited and lifestyle risks associated with disorder are discussed and strategies to reduce those risks are investigated. This course is appropriate for non-science majors. Credits: 3
(3,0)

BIO 123 Human Body in Health and Disease

This course is an inquiry into the mechanism of diseases that plague human beings. A systemic approach is taken in which all the major systems of the human body and the significant diseases that affect those systems are studied. Emphasis is on failures of homeostasis as the basic mechanisms of disease. Included are discussions on available treatments and therapies, the impact of new technological developments, and maintaining health and avoiding disease. The laboratory component contains both traditional and computer-generated exercises, which illustrate the onset and development of a variety of diseases and pathological states. Note: BIO 123 is approved in the Natural Sciences General Education Competency Area and can serve as a lower-level laboratory science elective within the Liberal Arts. However it does not satisfy Bioscience Core requirements and cannot be used as a substitute for either BIO 130 or BIO 131. Note: The laboratory course, BIO 123L is a part of your grade for this course. Corequisite(s): BIO 123L   Credits: 4
(3,2)

BIO 125 Principles of Nutrition

This course provides a basic background in the nature and biochemical function of essential and non-essential nutrients, the molecular basis of metabolism and nutrient requirements of living cells and organisms. The role of nutrients in gene expression, genetically modified foods and the role of diet in the treatment of diseases.   Credits: 3
(3,0)

BIO 130 Biological Principles I

This course deals with biological processes primarily at the molecular and cellular level, and develops the foundations of evolutionary and ecological concepts. There is a study of cell structure, and an examination of cellular composition and metabolic processes including enzyme activity, respiration, and photosynthesis. Principles of genetics are studied at the cellular and molecular level, with reference to current techniques in molecular biology. Evolutionary mechanisms are introduced and ecological concepts are presented as a unifying theme. Note: BIO 130 is the first course in the required two-semester introductory sequence in the Bioscience Curriculum Core. It is also approved in the Natural Sciences General Education Competency Area and can serve as a lower-level laboratory science elective within the Liberal Arts. Note: the laboratory course, BIO 130L is a part of your grade for this course. Corequisite(s): BIO 130L Credits: 4
(3,3)

BIO 131 Biological Principles II

This course deals with biological processes primarily at the organismal level, and examines the diversity of living things. The origins and adaptations of the Prokaryota, Protista, and Fungi are explored, with emphasis on their ecological roles, economic value, and medical significance. Plant life cycles are introduced, and plant structure, physiology, and utilization are studied. The evolution and adaptations of various animal phyla are presented, with a consideration of structure and function in each; organ systems are studied with emphasis on humans as representative vertebrates. Note: BIO 131 is the second course in the required two-semester introductory in the Bioscience Curriculum Core. It is also approved in the Natural Sciences General Education Competency Area and can serve as a lower-level laboratory science elective within the Liberal Arts. Note: the laboratory course, BIO 131L is a part of your grade for this course. Prerequisite(s): BIO 130 Corequisite(s): BIO 131L Credits: 4
(3,3)

BIO 135 Marine Science

Marine Science is designed to give the student an appreciation and understanding of the dynamics and interactions of the various components (biological, chemical, physical, geological) of the world's oceans. Habitats studied will range from near shore estuarine systems to deep ocean systems. Special consideration will be given to the human use and manipulation of the Long Island coastal zone. Laboratory sessions will include methodologies used in oceanographic sampling and analysis as well as exercises reinforcing lecture material. Field trips will also play an important part of the course work supporting lecture topics. Note: The laboratory course, BIO 135L is a part of your grade for this course. Corequisite(s): BIO 135L Credits: 4
(3,2)

BIO 166 Principles of Human Anatomy and Physiology

This is a one semester integrated survey of human anatomy and physiology, covering the major physiological and morphological relationships of the human organ systems. The design of this course is appropriate preparation for Dental Hygiene, Medical Laboratory Technology, and certain other allied health professions, but it does not satisfy the requirements of the Nursing Curriculum. The major theme of the course is the integrative pathways and regulatory processes that maintain the homeostasis of the body. Note: BIO 166 does not satisfy the requirements of the Nursing Curriculum and cannot be used as a substitute for either BIO 170 or BIO 171. It is approved in the Natural Sciences General Education Competency Area and can serve as lower-level laboratory science elective within Liberal Arts. Note: the laboratory course, BIO 166L is a part of your grade for this course. Prerequisite(s): High School biology with a lab or BIO 120 or 123 or 130; High School or College chemistry recommended. Corequisite(s): BIO 166L Credits: 4
(3,2)

BIO 170 Human Anatomy and Physiology I

This is the first semester of a two-semester sequence in which human anatomy and physiology are studied using a body systems approach, with emphasis on the interrelationships between form and function at the gross and microscopic levels of organization. This sequence is appropriate preparation for nursing and other allied health professions. Topics included in Anatomy and Physiology I are: basic anatomical and directional terminology, fundamental concepts and principles of cell biology, histology, and the integumentary, skeletal, muscular, and nervous systems. Students may not receive credit for both BIO 170 and BIO 270. Note: the laboratory course, BIO 170L is a part of your grade for this course. Prerequisite(s): High School biology with a lab or BIO 120 or 123 or 130; High School or College chemistry recommended Corequisite(s): BIO 170L   Credits: 4
(3,3)

BIO 171 Human Anatomy and Physiology II

This is the second semester of a two-semester sequence in which human anatomy and physiology are studied using a body systems approach, with emphasis on the interrelationships between form and function at the gross and microscopic levels of organization. This sequence is appropriate preparation for nursing and other allied health professions. Topics include Anatomy and Physiology II are: the endocrine system, the cardiovascular system, the lymphatic system and immunity, the respiratory system, the digestive system, metabolism, the urinary system, fluid/electrolyte and acid/base balance; and the reproductive systems. Note: students may not receive credit for both BIO 171 and BIO 271. Note: the laboratory course, BIO 171L is a part of your grade for this course. Prerequisite(s): BIO 170 Corequisite(s): BIO 171L   Credits: 4
(3,3)

BIO 192 Botany

An introduction to the biology of plants and their ancestors. Topics include cell structure and function, cell chemistry, photosynthesis and cellular respiration. The tissues, roots, stems and leaves are studied covering such topics as conduction, absorption, translocation and reproduction. A phylogenetic comparison among plant groups and their ancestors is the underlying theme. Note: the laboratory course, BIO 192L is a part of your grade for this course. Attendance is the laboratory course is required. Corequisite(s): BIO 192L Credits: 4
(3,2)

BIO 193 Zoology

An introduction to the biology of animals and their ancestors. Topics include structure and function of cells, tissues, organs and organ systems in animals. Genetics, development, behavior, ecology, and the evolution of major phyla are covered. A comparative approach is taken in studying the invertebrates and vertebrates including man. Note: the laboratory course, BIO 193L is a part of your grade for this course. Attendance in the laboratory course is required. Corequisite(s): BIO 193L Credits: 4
(3,3)

BIO 197 Human Biology

An introductory course that teaches biological principles by emphasizing the structural and functional aspects of the human body, especially as they relate to everyday existence. Includes discussion of important collateral issues such as the nature and course of disease, smoking and health, drug abuse, immunity and allergy, human genetics, birth-control, over-population, and sexually transmitted disease. Credits: 3
(3,0)

BIO 198 Entomology

The nature, structure, growth, and habits of insects and related forms are discussed. The beneficial and injurious effects of insects are covered. Recent breakthroughs and developments in the field of entomology are discussed. Skills are developed which enable the student to identify insect plant pests, diseases and injuries. Control measures and application equipment are discussed. Emphasis is placed on the various pest management options available to the homeowner and professionals in the field. IPM (integrated pest management) involves an understanding of pesticides, physical and mechanical controls, biological controls, cultural controls, and legal controls. Laws regulating the activities of pest control operators and the application of hazardous pesticides are discussed. A collection of insects and related forms is required. Note: the laboratory course, BIO 198L is a part of your grade for this course. Corequisite(s): BIO 198L Credits: 4
(3,2)

BIO 210 Introduction to Bioscience

Moving beyond the basic concepts of general biology, this class explores how biology is used in both academic and commercial settings within the fields of biotechnology, pharmaceutical and clinical sciences. Topics will include: applications of biotechnology in microbes, plants, and animals, the human genome project and its relation to medical biotechnology, DNA forensics, and pharmaceutical drug discovery, delivery, and FDA approval. The debate surrounding subjects such as cloning, stem cells, and genetically modified foods will also be discussed. Prerequisite(s): BIO 130 with a grade of C- or higher Credits: 3
(3,0)

BIO 212 Bioscience Laboratory Practices

This course is designed to enable students to develop understanding of and proficient technical ability in basic bioscience laboratory practices. There is an in-depth presentation of laboratory safety standards, utilization of material safety data sheets, and the theoretical basis for a full range of preparatory and analytical methods and the opportunity to develop expertise in these methods with a variety of laboratory equipment. Students are required to maintain a laboratory notebook, analyze and display data in graphic form, and report results in a standard format. Prerequisite(s): BIO 130 with a grade of C- or higher Corequisite(s): BIO 212L Credits: 2
(1,2)

BIO 220 Medical Microbiology

The role of microbes as causative agents of disease in human hosts; the morphological characterization of pathogenic species, classification of communicable diseases and epidemiological aspects. Host-parasite relationship, infection, and host-resistance mechanisms; sero-diagnostic methods in medical practice. Chemotherapy, mode of action of antibiotics, sterilization, disinfection methods and contamination control. Note: the laboratory course, BIO 220L is a part of your grade for this course. Prerequisite(s): BIO 166 or 170 or 171 or 130 or 131 Corequisite(s): BIO 220L Credits: 4
(3,3)

BIO 235 Marine Biology

The ecological principles of the marine environment will be examined. There will be an emphasis on the classification, identification and economic importance of both the animals (Protozoa-Chordata) and the algae (microscopic and macroscopic). The flora and fauna of the Long Island region will be stressed with field trips and collections being an integral part of the course. Note: the laboratory course, BIO 235L is a part of your grade for this course. Prerequisite(s): BIO 130 or 131 or 192 Corequisite(s): BIO 235L Credits: 4
(3,3)

BIO 240 Bioethics

This course will cover ethical issues raised as a result of modern advances in biotechnology which directly affect the quality of human life. Bioethics comprises every possible aspect of health care: medical, moral, political, religious, legal and financial. It scrutinizes outmoded laws and deals with the enormous growth in available medical services. It takes into account our views of ourselves as members of a humane society. Note: This course is also offered as a writing intensive course at the discretion of the department. Students cannot get credit for BIO 240 and BIO 240W. Prerequisite(s): One course of college biology with a C- or higher; for the writing intensive version, EGL 101 with a grade of C or higher is also required. Credits: 3
(3,0)

BIO 256 Environmental Sampling & Analysis

Proper field techniques for sampling the water, land, and air environments will be emphasized. Laboratory procedures will involve the analysis of both chemical and biological parameters, including wastewater analysis, using New York State approved methodology. Vegetative transecting and beach contouring will also be included. Data presentation and report writing will be emphasized. Field trips and study will be an integral and required part of this course. Discussion of environmental laws and impact statements will be included. Note: The laboratory course, BIO 256L is a part of your grade for this course. Prerequisite(s): One course of college biology with a laboratory and one semester of college chemistry with a laboratory. Corequisite(s): BIO 256L Credits: 3
(2,3)

BIO 270 Anatomy and Physiology I

BIO 270 is a course in which human anatomy and physiology are studied using a body systems approach, with emphasis on the interrelationships between form and function at the gross and microscopic levels of organization. This sequence is appropriate for students with a strong foundation in basic biological principles. Anatomy and Physiology I includes: anatomical and directional terminology, histology, and the integumentary, skeletal, muscular, nervous, and endocrine systems. Note: The required course sequence for nursing students is BIO 170 and 171. Students may not receive credit for both BIO 170 and BIO 270. Note: the laboratory course, BIO 270L is a part of your grade for this course. Prerequisite(s): BIO 130 or equivalent with a C- or higher Corequisite(s): BIO 270L Credits: 4
(3,3)

BIO 271 Anatomy and Physiology II

BIO 271 is a course in which human anatomy and physiology are studied using a body systems approach, with emphasis on the interrelationships between form and function at the gross and microscopic levels of organization. This sequence is appropriate for students with a strong foundation in basic biological principles. Anatomy & Physiology II includes: the cardiovascular, respiratory, digestive, urinary, reproductive, and immune systems, metabolism, and acid-base balance. Note: The required course sequence for nursing students is BIO 170 and 171. Students may not receive credit for both BIO 171 and BIO 271. Note: the laboratory course, BIO 271L is a part of your grade for this course. Prerequisite(s): BIO 130 or equivalent with a C- or higher Corequisite(s): BIO 271L Credits: 4
(3,3)

BIO 290 Entomology II

Methods of greenhouse pest and disease control, including identification of major families of pests, diagnosis of diseases, principles of cultural and chemical control, and a survey of pests and diseases associated with economically important greenhouse crops. Note: The laboratory course, BIO 290L is a part of your grade for this course. Prerequisite(s): BIO 198 or 192 Corequisite(s): BIO 290L Credits: 3
(2,2)

BIO 294 Vertebrate Physiology

This course investigates the principles of physiology in vertebrates with emphasis on mechanism of integration and homeostasis at the cellular, organ and system level. It explores the comparative, experimental and evolutionary aspects of all vertebrate classes and surveys the impact of recent advances in cellular and molecular biology on this branch of the biological sciences. Corequisite(s): BIO 295L Credits: 3
(3,0)

BIO 295L Vertebrate Physiology (Lab)

This laboratory course is an inquiry into the experimental methods and models for understanding vertebrate physiology. It will explore the comparative, experimental and evolutionary aspects of the mechanisms of integration and homeostasis among select vertebrate classes. Laboratory exercises incorporate computer software-based exercises with classic physiology experiments designed to illustrate both the basic concepts of physiology as well as the comparative nature of these events in a number of vertebrate species. Corequisite(s): BIO 294 Credits: 1
(0,3)

BIO 330 Principles of Ecology

The course introduces the student to the nature of ecosystems, community organization and dynamics, and population growth and regulation through the understanding and use of modern ecological techniques. The laboratory will be primarily focused on the analysis of field data collected by students. Note: the laboratory course, BIO 330L is a part of your grade for this course. Prerequisite(s): MTH 110, BIO 131 with a C- or higher and Junior Status Corequisite: BIO 330L Credits: 4
(3,2)

BIO 335 Plant Systematics

An introduction to systematics using vascular plants as the model organisms. Lecture material for this course will cover all aspects of systematics from basic nomenclature, taxonomy and systematic methods through modern molecular systematics and cladistics. Lab material will cover plant morphology and the identification of characteristics across plant lineages and their relationship to systematics. Note: The laboratory course, BIO 355L is a part of your grade for this course Prerequisite(s) BIO 131 or BIO 192 or BIO 198 with a C- or higher and Junior Status. Corequisite(s): BIO 335L Credits: 4
(3,3)

BIO 340 Biopharmaceutical Regulation

This course introduces the student to Current Good Laboratory Practice (cGCP), Current Good Clinical Practice (cGCP) and Current Good Manufacturing Practice (cGMP) as defined in the Code of federal Regulations Title 21. These regulations apply to all aspects of testing, clinical trials and manufacturing of Biopharmaceutical products under the authority of the Food and Drug Administration. The course will examine the application of these regulations to the bioprocessing, pharmaceutical, nutraceutical, cosmeceutical and allied industries. Prerequisite(s): BIO 210 with grade of a C- or higher Credits: 3
(3,0)

BIO 343 Principles of Genetics

A thorough study of Genetics intended for majors in the Bioscience Curriculum. Topics to be covered include cytogenetics, immunogenetics, molecular genetics, population genetics and quantitative genetics. Computer simulations and demonstrations will present genetic principles. Students will utilize computerized databases to complete independent genomic search assignments. Note: Bioscience and/or MLT students taking BIO 343 must also take BIO 344L either during the same semester or after completion of BIO 343. Prerequisite(s): BIO 130, BIO 131, BIO 210, BIO 212, and MTH 110 all with a grade of C- or higher or BIO 130, MLT 227, and MTH 110 all with a grade of C- or higher. Credits: 3
(3,0)

BIO 344L Principles of Genetics Lab

Laboratory exercises include both computer simulations and the use of living organisms to illustrate genetic principles and techniques. Students will collect data utilizing standard genetics investigational techniques. Note: BIO 343 is a prerequisite OR a corequisite for this course. BIO 343 must be taken either prior to or during the same semester as BIO 344L. Prerequisite(s): BIO 130, BIO 131, BIO 210 and BIO 212 and MTH 110 all with a grade of C- or higher or BIO 130, MLT 227 and MTH 110 all with a grade of C- or higher. Corequisite(s): BIO 343 Credits: 1
(0,3)

BIO 345 Introduction to Bioinformatics

This course is intended to teach the basic tools used in bioinformatics in order to investigate biological questions. Students will conduct independent projects utilizing existing computer programs and databases for gene searches, sequence comparisons, and phylogenetic analysis. Prerequisite(s): BIO 343, BIO 344L and BCS 101 or BCS 102 all with a grade of C- or higher Credits: 3
(3,0)

BIO 348 Cell Biology

This course investigates how cells develop, work, communicate, and control their activities. Topics include basic biochemistry and metabolism, DNA structure and function, membrane/organelle function and transport, cell communication, the cytoskeleton, and cell division. At the completion of this course the student should be able to engage in the broad themes of cell and molecular biology, and to relate these concepts to other studies in biology and other disciplines. Note: Bioscience and/or MLT students taking BIO 348 must also take BIO 349L either during the same semester or after completion of BIO 348. Prerequisite(s): BIO 130, 131, 210 and 212 or (BIO 130 and MLT 227) all with a grade of C- or higher. Credits: 3
(3,0)

BIO 349L Cell Biology (Lab)

This course introduces students to the theory and methodology of protocols routinely used in research laboratories investigating cell structure and function. Students have the opportunity to use both common and high tech instruments to perform weekly laboratory exercises. Experimental design, controls and data presentation and analysis are emphasized. Note: BIO 348 is a prerequisite OR a co-requisite for this course. BIO 348 must be taken either prior to or during the same semester as BIO 349L. Prerequisite(s): BIO 130, 131, 210 and 212 or (BIO 130 and MLT 227) all with a grade of C- or higher Corequisite(s): BIO 348 Credits: 1
(0,3)

BIO 353 Essentials of Plant Pathology

The study of the development of plant diseases caused by Plants, Animals, Fungi, Protists, Bacteria, Viruses and Virolds. Major diseases of economically important plants are emphasized. The disease process and disease cycles for representative pathogens are covered in relation to plant disease control methods. Prerequisite(s): BIO 192 with a grade of C- or higher and Junior Status Corequisite(s): BIO 354L Credits: 3
(3,0)

BIO 354L Essentials of Plant Pathology (Lab)

The laboratory is designed to enable the student to acquire skills in collection and examination methods used for the diagnosis of plant diseases produced by biotic and abiotic agents, using microbial isolation and culturing techniques where applicable. The student will learn to recognize and identify (directly or indirectly) biotic plant pathogens among the Plants, Animals, Fungi, Protists, Bacteria, Viruses and Viroids. Prerequisite(s): BIO 192 with a grade of C- or higher and Junior Status Corequisite(s): BIO 353 Credits: 1
(0,2)

BIO 355 Ecological Topics: The Structure and Function of Nature

This course introduces students to basic ecological concepts as they relate to the biotic and abiotic environment. It stresses the diversity of life and the impact that man, other organisms and environment have on each other. Laboratory exercises and field work will investigate the effects organisms have on each other as well as the effects of environmental conditions on growth and development. Students will also characterize the nature of selected site(s) in terms of species diversity using plot sampling techniques. Seminar type discussions require individuals or small groups to explore environmental issues. Topics for these discussions will be submitted to the instructor for appropriateness and approval. Students will be required to research and prepare a paper as well as make a presentation to the class. The class will be given the opportunity to question each speaker following that individual's presentation. Note: the laboratory course, BIO 355L is a part of your grade for this course. Prerequisite(s): BIO 131 or BIO 192 or BIO 198 with a grade of C- or higher and Junior Status. Corequisite(s): BIO 355L Credits: 4
(3,3)

BIO 365 Neurology of Pain

BIO 365 is a comprehensive study of the various neurogenic mechanisms central to the study and understanding of pain is the focus of this lecture-based course. In addition, Clinical neuroanatomy and physiology will be reviewed. Emphasis will be placed on organic/root causes of pain pertaining to symptom specific generators. Also, a broad base review will be aimed at exploring the psychodynamic components of pain. This includes, but is not limited to topics in addiction, brain reward cascades, and arousal mechanisms. The final portion of this course includes discussion of the various methods of pain mitigation and measurement. Strong clinical applications will be emphasized throughout the course. Prerequisite(s): (BIO 130 or BIO 170 with a grade of C- or higher) and (Junior Status or BIO 220 with a grade of C- or higher) Credits: 3
(3,0)

BIO 380 Pre-Professional Experience I

Recommended students will engage in one of the following for at least 135 hours: 1) health care volunteer work that involves patient assistance in the health care environment; 2) shadowing of a health care professional (physician, physician assistant, physical therapist, occupational therapist, dentist, veterinarian etc...). The final grade is assigned by the Internship Coordinator based on consultation with the supervisor/health professional and evaluation of reports, logs and a final report prepared by the student. Students must submit a resume to the internship coordinator at least 3 months before registering for the course. Prerequisite(s): Junior Status in Bioscience and (BIO 130 and 131) or BIO 166 or (BIO 170 and BIO 171) or BIO 220 or BIO 414 with a grade of C- or higher, recommendation by two Biology faculty members, submission of a resume to the Internship Coordinator at least 3 months prior to registering for the course, approval of the Internship Coordinator; additional courses in Human Anatomy and Physiology and/or Medical Microbiology recommended for some sites. Credits: 3
(0,9)

BIO 381 Pre-Professional Experience II

Recommended for students engaged in one of the following for at least 135 hours: 1) health care volunteer work that involves patient assistance in the health care environment; 2) shadowing of a health care professional (physician, physician assistant, physical therapist, occupational therapist, dentist, veterinarian, etc.) The final grade is assigned by the Internship Coordinator based on consultation with the supervisor/health professional and evaluation of reports, logs, and a final report prepared by the student. Prerequisite(s): BIO 380 with a grade of B or higher. Credits: 3
(0,9)

BIO 414 Microbiology

Based on contemporary applications of microbiology, this course is designed to present both fundamental concepts of microbial physiology and growth as well as microbial control measures ranging from asepsis to antibiosis. The role of microorganisms in natural ecosystems, research, manufacturing and human infection will be explored, with emphasis on prokaryotic genetics and metabolism. Mechanisms of evolution will be discussed within the context of emerging pathogens and novel bioengineered organisms. The dynamics between the human microbiome and resistance to infection will be presented along with basic epidemiological models. Note: the laboratory course, BIO 414L is a part of your grade for this course. Prerequisite(s): BIO 210, 212 and (343 and 344L) with a grade of C- or higher Corequisite(s): BIO 414L Credits: 4
(3,3)

BIO 415 Human Virology

This course will focus on specific human viruses, including papilloma, herpes, smallpox, polio, measles, HIV, influenza, SARS, and hepatitis viruses. Lecture will cover viral strategies of invasion, viral lifecycles, viral offense and host defense, prevention and control of viral diseases, approaches for studying viruses and public health. Prerequisite(s): BIO 348 and 349L with a grade of C- or higher Credits: 3
(3,0)

BIO 420 Principles of Immunobiology

Immunobiology is a course in human immunology covering the concepts of innate and adaptive immunity and descriptions and functions of cellular and soluble factors involved in the immune response to eliminate infectious organisms. Concepts include mechanism for regulation of the immune response, how the immune system learns to discriminate between self and non-self, induction and maintenance of immunological tolerance and the development of immunological memory.
Prerequisite(s): BIO 348 and BIO 349L with a grade of C- or higher Credits: 3
(3,0)

BIO 441 Introduction to Molecular Biology

A detailed introduction to molecular biology, the course covers the techniques common to all molecular biology such as nucleic acid separation and visualization, PCR blotting, and sequencing. In addition, the course focuses on topics such as transcriptional regulation, RNA processing, DNA replication, DNA repair, and DNA recombination. Each is presented from both the view of prokaryotes as well was eukaryotes. Scientific journal articles highlighting class topics will be used to supplement class lectures. Note: the laboratory course, BIO 441L is a part of your grade for this course. Prerequisite(s): BIO 343 and 344L and BIO 348 and BIO 349L all with a grade of C- or higher.
Corequisite(s): BIO 441L (3,4) Credits: 5
(3,4)

BIO 444 Forensic Molecular Biology

This course explores advanced molecular biological techniques and concepts as they apply to the study of forensic investigation. The course will cover background information on body fluid identification, DNA structure and function, analytical DNA techniques, and review advancements in the field of DNA typing. The primary focus will be the molecular biological technique known as short tandem repeats (STR) testing. Other topics covered include case studies, sample handling, DNA databanking (CODIS), mass disaster identification, Y chromosomal analysis, paternity testing, and validation procedures. The laboratory component of this course will give the students hands-on experience in techniques and experiments that are currently being employed by forensic biology laboratories across the country. Note: Students who have completed BIO 430 or CRJ 430 may not receive credit for this course. Note: the laboratory course, BIO 444L is a part of your grade for this course. Prerequisite(s): BIO 348, 349L and CRJ 201 all with a grade of C- or higher. Corequisite(s): BIO 444L Credits: 4
(3,3)

BIO 455 Validation and Regulatory Affairs

An introduction is provided to governmental oversight of drugs, devices and biotherapeutics, and the laws and regulations that apply to development, testing and validation of methods and equipment. There is a survey of the history of US food and drug law, the creation of the FDA, and the current organization and responsibilities of the FDA. Specific US laws and regulations applicable to drugs, devices and biologics and international regulations and import/export concerns are examined. Prerequisite(s): BIO 343 or BIO 348 with a grade of C- or higher Credits: 3
(3,0)

BIO 460 Topics in Biology

A study of current discoveries and applications of biology, with emphasis on student participation and written assignments. Critical thinking will be developed concerning the validity of popular reports and extraordinary claims. Ongoing discoveries in biology will be analyzed according to their contributions to the advancement of knowledge, their possible commercial medical, or agricultural applications, and ethical issues that they may arise. Resources that will be utilized include current scientific literature, guest lectures, and the internet. Prerequisite(s): BIO 343, 344L, 348 and 349L with a grade of C- or higher.   Credits: 3
(3,0)

BIO 470 Bioscience Senior Seminar

The capstone course in the Bioscience Program, utilizes guest speakers and student literature searches to explore the state of the entire field of Bioscience. Each student is required to write a paper on an approved topic in the field of Bioscience based on primary sources in the scientific literature, and to present a seminar at which the student will defend his or her correlations and conclusions about the topic. Note: this course is also offered as a writing intensive course at the discretion of the department. Students cannot get credit for BIO 470 and BIO 470W. Prerequisite(s): BIO 343, 344L, 348 and 349L with a grade of C- or higher; for the writing intensive version, EGL 101 with a grade of C or higher is also required. Corequisite(s): BIO 441 Credits: 3
(3,0)

BIO 476L Bioscience Internship A1

Bioscience majors may be recommended for or invited into one or more assignments in the Bioscience Internship Series, with the course number selected according to the length of the internship and whether it is a first or subsequent internship. Bioscience Internships A1 and A2 (BIO 476 and 477) represent short preliminary projects for 45 hours earning 1 credit. Note: Students seeking credit for health care shadowing/assisting and/or volunteer work should register for BIO 380 and/or BIO 381 instead. Prerequisite(s): Submission of resume 3 months in advance; Biology faculty recommendation or invitation and BIO 343 and BIO 344L or BIO 348 and BIO 349L all with a grade of C- or higher. Credits: 1
(0,0,3)

BIO 477L Bioscience Internship A2

Bioscience majors may be recommended for or invited into one or more assignments in the Bioscience Internship Series, with the course number selected according to the length of the internship and whether it is a first or subsequent internship. Bioscience Internships A1 and A2 (BIO 476 and 477) represent short preliminary projects for 45 hours earning 1 credits. Note: Students seeking credit for health care shadowing/assisting and/or volunteer work should register for BIO 380 and/or BIO 381 instead. Prerequisite(s): Previous Internship with a grade of B or higher, Biology faculty recommendation or invitation. Credits: 1
(0,0,3)

BIO 478L Bioscience Internship B1

Bioscience Internships B1 and B2 (BIO 478 and 479) represents intermediate projects for 90 hours earning 2 credits. Note: Students seeking credit for health care shadowing/assisting and/or volunteer work should register for BIO 380 and/or BIO 381 instead. Note: Submission of resume 3 months in advance; Biology faculty recommendation or invitation. Prerequisite(s): (BIO 343 and BIO 344L) and (BIO 348 and 349L) Credits: 2
(0,0,6)

BIO 479L Bioscience Internship B2

Bioscience Internships B1 and B2 (BIO 478 and 479) represent intermediate projects for 90 credits hours earning 2 credits Note: Students seeking credit for health care shadowing/assisting and/or volunteer work should register for BIO 380 and/or BIO 381 instead. Prerequisite(s): BIO 478L with a grade of B or higher Credits: 2
(0,0,6)

BIO 480L Bioscience Internship I

Bioscience Internship I, represents substantial projects or work experiences for 135 hours earning 3 credits Note: Students seeking credit for health care shadowing/assisting and/or volunteer work should register for BIO 380 and/or BIO 381 instead. Prerequisite(s): (BIO 343 and BIO 344L) and (BIO 348 and 349L). Submission of resume 3 months in advance; Biology faculty recommendation or invitation Corequisite(s): BIO 441 Credits: 3
(0,0,9)

BIO 481L Bioscience Internship II

Bioscience Internships II represents substantial projects or work experiences for 135 hours earning 3 credits. Note: Students seeking credit for health care shadowing/assisting and/or volunteer work should register for BIO 380 and/or BIO 381 instead. Prerequisite(s): BIO 480L with a grad of B or higher Credits: 3
(0,0,9)

BIO 482L Bioscience Internship III

Bioscience Internship III represents intermediate projects for 135 hours 3 credits. Note: Students seeking credit for health care shadowing/assisting and/or volunteer work should register for BIO 380 and/or BIO 381 instead. Prerequisite(s): BIO 481L with a grade of B or higher Credits: 3
(0,0,9)

BIO 483L Bioscience Internship IV

Bioscience Internship IV represents substantial projects or work experiences for 135 hours earning 3 credits. Note: Students seeking credit for health care shadowing/assisting and/or volunteer work should register for BIO 380 and/or BIO 381 instead. Prerequisite(s): BIO 482L with a grade of B or higher Credits: 3
(0,0,9)

BIO 484L Bioscience Internship V

Bioscience Internship V represents longer and more extensive projects or work experiences of 180 hours earning 4 credits. Note: Students seeking credit for health care shadowing/assisting and/or volunteer work should register for BIO 380 and/or BIO 381 instead. Prerequisite(s): (BIO 343 and BIO 344L) and (BIO 348 and 349L). Submission of resume 3 months in advance; Biology faculty recommendation or invitation. Credits: 4
(0,0,12)

BIO 485L Bioscience Internship VI

Bioscience Internship VI represents longer and more extensive projects or work experiences of 180 hours earning 4 credits. Note: Students seeking credit for health care shadowing/assisting and/or volunteer work should register for BIO 380 and/or BIO 381 instead. Prerequisite(s): BIO 484L with a grade of B or higher Credits: 4
(0,0,12)

BIO 486L Bioscience Internship VII

Bioscience Internship VII represents longer and more extensive projects or work experiences of 180 hours earning 4 credits. Note: Students seeking credit for health care shadowing/assisting and/or volunteer work should register for BIO 380 and/or BIO 381 instead. Prerequisite(s): BIO 485L with a grade of B or higher Credits: 4
(0,0,12)

BIO 490 Bioscience

An intensive bioscience research experience for selected student in a research laboratory under the supervision of faculty engaged in current investigations in the field of bioscience. The student will be expected to commit himself / herself to a full weekly schedule of laboratory research activity and tutorials for a semester or summer to gain professional expertise in laboratory procedures, record keeping, operation of laboratory equipment, experimental design, and preparation of data for scientific publication presentation and oral presentation. Technical Elective for Bioscience majors. Prerequisite(s): Senior status and recommendation of faculty. Credits: 8
(4,0,12)

BUSINESS

BUS 101 Accounting I

Fundamental accounting concepts and principles are covered through an understanding of the following topics: accounting as an information system; analyzing a transaction; the accounting cycle; accounting for both service enterprises and merchandising businesses; deferrals and accruals; reversing entries; systems design; accounting for cash, receivables, temporary investments and inventory; payroll accounting. Students apply concepts to the preparation of special journals, subsidiary ledgers, worksheets and financial statements. Credits: 3
(3,0)

BUS 102 Accounting II

Continued development of the principles and concepts introduced in Accounting I. The following topics are included: emphasis on further understanding of generally accepted accounting principles; plant assets; intangible assets; determination of depreciation, depletion and amortization; accounting for partnerships and corporations; long term liabilities; investments in bonds and stock; statement of cash flows; managerial accounting; accounting for manufacturing operations; budgeting and standard costs systems. Prerequisite(s): BUS 101 with a grade of C or higher Credits: 3
(3,0)

BUS 109 Management Theories and Practices

This introductory course covers management principles pertaining to human resources, individual behavior in organizations, employee motivation and performance, and business ethics. Topics also include managing and the manager's job; planning and decision making; employee performance appraisal and feedback; leadership and influence processes; interpersonal relations and communication; and managing work groups and teams. Credits: 3
(3,0)

BUS 111 Introduction to Business

This course introduces the student to the fundamentals of American Business and its contemporary environment. It provides an overview of organizational, national, and international trends and their impact on enterprises both large and small. The course develops an understanding of important business concepts, principles, and practices that explain how businesses are formed, how they operate to accomplish their goals, and why/how their success depends on effective management, production, marketing and finance/accounting. Credits: 3
(3,0)

BUS 121 Business Mathematics

The fundamentals of applied mathematics in the field of accounting, finance, marketing, and selling. Topics include interest, bank discount, insurance, and annuities. The use of arithmetic as a managerial tool is stressed. Credits: 3
(3,0)

BUS 131 Marketing Principles

This course provides the student with a sound knowledge of the basic elements of the marketing process. Major topics include the features of consumer and organizational markets, market segmentation, and target market strategies. Product planning and development, brands, packaging and other product features are covered. Price determination and the use of various pricing strategies are discussed. The factors in the selection of channels of distribution and the features of wholesaling and retailing are considered. Elements of the promotional process such as sales, advertising, and sales promotion are included. Ethical and legal issues in marketing, marketing of services, global marketing, and marketing on the Internet are also covered. Credits: 3
(3,0)

BUS 141 Contemporary Business Communications

An introduction to the role and importance of effective communications in business. Key topics include the familiarization and practice in preparing common types of internal and external business communications; contemporary issues in business communication relating to technology, ethics, and nondiscriminatory language; memo and report writing with proper mechanics, style, and appropriate tone/attitude; and business presentations. Prerequisite(s): EGL 101 and BCS 102 Credits: 3
(3,0)

BUS 188 Advertising Art and Applications

This course will combine basic advertising principles with practical media application. This course shall introduce students to the business of advertising in a contemporary global environment. The course will explore concepts of advertising, including elements of media selection and copywriting within the parameters of internal budgets, management and the application of actual advertising creation. In addition, students will create advertising, integrating the roles of the creative director and marketing manager. Note: Students completing this course may not receive credit for VIS 188. Credits: 3
(3,0)

BUS 201 Corporate Finance

The overall aim of this course is to help students develop an understanding and appreciation of Finance as a business discipline - an analytical approach in assessing the financial worthiness of a business entity is stressed. Topics covered include time value of money; financial statement analysis; valuation models; risks and rates of return; calculating beta coefficients; working capital management; capital budgeting; the cost of capital leverage and dividend policy; and financial forecasting. Prerequisite(s): BUS 101 and 102 Credits: 3
(3,0)

BUS 202 Business Law I

An introduction to the nature and sources of law; the role the legal system; the law of torts and crimes; the law of contracts; and real and personal property. Credits: 3
(3,0)

BUS 209 Teamwork and Team Building

The following topics will be discussed and analyzed: teams in organizations, understanding team building and development, working in groups and teams, team roles and processes, being a team leader, and handling team conflict. The culmination of these concepts and functions, referred to as "team forming, storming, norming, and performing," will also be covered. Case studies will be used extensively. Prerequisite(s): BUS 109 Credits: 3
(3,0)

BUS 220 Financial Information Systems

This course will further the understanding of accounting theory and will provide the opportunity to achieve competency in the use of computerized applications. The course will introduce students to internal control theory within a computerized financial information system. Use of the Web for accessing relevant information will also be introduced. Prerequisite(s): BUS 101 Corequisite(s): BUS 102 Credits: 3
(3,0)

BUS 230 Environmental Law

This elective course addresses concerns pertaining to the business environment, instructing students as to the unified ecological approach to which affect management. The political approach to business environmental concerns in the context of constitutional, common law and administrative law theories and case and statutory analysis are examined, referencing basic natural science technology. Designed as a first law course it introduces the business, horticulture and industrial technology student to the legal process applying relevant components of environmental law studies. A nationally adopted text of a major law publisher and contemporary business periodical articles on assigned topics are to be used extensively. Credits: 3
(3,0)

BUS 232 Electronic Commerce

This cross-listed business management and business computer systems course covers electronic commerce (EC) foundations, retailing methodologies, and marketing research. Focus will be on the various forms, strategies, and implementations of EC including business-to-business (B2B), business-to-consumer (B2C) and consumer-to-consumer (C2C). Also covered will be social networking, electronic payment systems, and public policy issues including privacy and intellectual property matters as well as recent information technology advancements. Students completing BUS 232 may not receive credit for BCS 232. Prerequisite(s): BUS 109 or Management course and BCS 101 or BCS 102 Credits: 3
(3,0)

BUS 240 Business Statistics

This course provides an understanding of statistical concepts and tools that are critical in business decision-making. The discussion and development of each topic is presented in an application setting, with the statistical results providing insights and solutions to real world problems. Students will be able to calculate and perform various analyses, including but not limited to: Interval Estimation, Hypothesis Testing, Test of Goodness of Fit, and Independence and Regression Analysis. The coursework requires extensive use of commercially available statistical software. Prerequisites: MTH 117 or MTH 129 Credits: 3
(3,0)

BUS 250 Consumer Behavior

This course recognizes the central role of consumers in determining the fate of a firm's marketing efforts. Topics covered include the understanding of consumer motivation, perception, and learning, as well as the recognition of social influences on consumer behavior such as reference groups, opinion leadership, culture, and subcultures. Emphasis will be on the consumer's decision making process so that students can make more informed choices in the marketplace. Topics also include the methods marketers use to influence consumer behavior and corresponding ethical and legal issues. Prerequisite(s): BUS 131 or Department approval. Credits: 3
(3,0)

BUS 251 Retailing

This course helps students develop an understanding of the relationship of retailing to the marketing process and describes the fundamentals of modern retailing. A study is made of modern retail institutions. Credits: 3
(3,0)

BUS 253 Industrial Marketing

This course focuses on the marketing of industrial goods and services to industrial markets. Industrial product planning, channels of distribution, promotional activities and pricing strategies are emphasized. Other topics such as understanding industrial buying and evaluating potential markets are also covered. Prerequisite(s): BUS 131 Credits: 3
(3,0)

BUS 254 Salesmanship

This course emphasizes the creative selling techniques used by professional salespeople. It covers all the important elements of the personal selling process with special emphasis placed on determining prospects' needs, translating features into benefits, overcoming objections and closing methods. Participants will demonstrate their ability to apply the techniques discussed by delivering sales presentations. Prerequisite(s) BUS 131 or Department approval. Credits: 3
(3,0)

BUS 256 Sales Management

The major problems of sales management in the distribution of products and services; the selection, recruitment, and training of sales personnel; measurement of the effectiveness of salespeople, supervision and compensation of salespeople; sales quotas and budgets. Prerequisite(s): BUS 254 or Department approval Credits: 3
(3,0)

BUS 257 Advertising Principles

This course uses practical concepts to examine the role of advertising in the marketing process. Topics covered include: ethical issues involved in advertising, various types of advertising used by marketers, services performed by ad agencies, the creative side of advertising including basic elements of copywriting and design, how to prepare an ad budget, and the elements of media selection. Also covered are the various types of advertising media including magazines, newspapers, outdoor, transit, yellow pages, and direct mail as well as the features of advertising on television, radio and the Internet. Prerequisite(s): BUS 131 or Department approval Credits: 3
(3,0)

BUS 258 Production Management

Presents a survey which informs the student about the development of modern industry and scientific management and will enable him/her to grasp the operating principles. Credits: 3
(3,0)

BUS 259 Public Relations

Principles and practices of building good public relations between industry and employees, stockholders, consumers, suppliers and the press. The development of public relations as a top-management function. Credits: 3
(3,0)

BUS 266 Personnel Human Resource Management

This course develops an understanding of the important functions and tasks performed by the modern human resource department such as staffing, training, employee safety and compensation. Emphasis throughout will be on the partnership to ensure a motivated work force. Prerequisite(s): BUS 109 or Department approval Credits: 3
(3,0)

BUS 267 Small Business Management

This course helps students develop an understanding of the relationship of small business management to the management process. It describes the fundamentals of small business management. A study is made of major problems and pitfalls faced by managers of small businesses. Credits: 3
(3,0)

BUS 268 Industrial Purchasing

The principles and techniques of purchasing as they apply in actual practice today. The purchasing area will be treated as a specialized function in the business organization. Constructive aspects of purchasing with emphasis on long-term policies and profit-making opportunities. Credits: 3
(3,0)

BUS 271 Intermediate Accounting I

An in-depth study of the principles related to financial accounting topics and a study of recent developments in financial accounting required by the Financial Accounting Standards Board. Topics include the following: development of accounting standards; nature of the conceptual framework, assumptions and principles; review of the accounting process; continued study of the Income Statement, Balance Sheet and Statement of Cash Flows; time value of money; cash and receivables, inventories; acquisition and disposal of property, plant and equipment; depreciation and depletion; intangible assets; long-term investment in Equity Securities and other assets. Prerequisite(s): BUS 101 and 102 Credits: 3
(3,0)

BUS 272 Intermediate Accounting II

A continuation of the study of the principles related to financial accounting. This study will include a presentation of the following topics: stockholders' equity; dilutive securities; revenue recognition; accounting for income taxes; accounting for pensions and for leases; accounting changes and error analysis, full disclosure in financial reporting; financial reporting and changing prices; liabilities-current and contingent; liabilities-long term. Prerequisite(s): BUS 271 Credits: 3
(3,0)

BUS 273 Cost Accounting

Principles of cost accounting applied to manufacturing industries. The use of cost data and procedures under job order, process cost, and standard cost accounting systems as a tool of management. Prerequisite(s): BUS 101 and 102 Credits: 3
(3,0)

BUS 278 Business Project

This is an independent study course designed to offer a student experience in research and performing special projects in business and/ or related area of interest. A faculty member shall act as a Project Advisor. The project selected will utilize skills and knowledge acquired in previous business administration and related courses. The number of credits received will be determined by the complexity of the project and agreed upon prior to the student's starting the course. Credits: 1 or 3
(1 or 3,0)

BUS 280 International Business

This course examines the international integration of socio-cultural, political, and economic aspects of business. It explores the impact of globalization on countries, organizations, and individuals. The course will also discuss key issues in ethics, corporate social responsibility, and technology in the global context. Students will develop a broad understanding of the global marketplace and learn how the global environment affects business functions and performance. Credits: 3
(3,0)

BUS 291 Investments

To familiarize students with financial literature and facilities that are available as guides to the proper selection of securities and other types of investments. The course is covered from the perspective of the individual investor. As such, a logical portfolio commensurate with the financial goals of the individual is stressed. Financial information available both in published as well as Internet access format are covered. Credits: 3
(3,0)

BUS 300 Operations Management

This course undertakes an examination of the role of operations within manufacturing and service organizations. Emphasis is placed upon recognizing operational opportunities and tradeoffs, and employing quantitative and qualitative tools and decision support systems to assist strategic and operational decision-making. The general functions of operations management as applied to the transformation process are covered. Some of the important topics include but not limited to Forecasting, Statistical Quality Control, Inventory Management, Linear Programming, and Transportation Models. Note: Students who have previously completed IND 301 cannot receive credit for BUS 300. Prerequisite(s): BUS 240 or MTH 110 Credits: 3
(3,0)

BUS 303 Planning and Controlling Operation

This course is an introduction to the concepts and techniques of sales and operations planning; managing inventory; master scheduling; material requirements planning; production activity control; supply chain information systems; process mapping; JIT/Lean production; and Kanban systems. Case studies covering these topics will be included. Note: Students cannot receive credit for both BUS 303 and IND 303. Prerequisite(s): BUS 109 Credits: 3
(3,0)

BUS 304 Business Law II

An introduction to the law of sales and lease contracts, letters of credit, commercial paper and secured transactions under the UCC and creditor's rights and remedies, including surety ship and guaranty, insurance, wills, trusts, elder law and consumer protection. Prerequisite(s): BUS 202 or Department approval Credits: 3
(3,0)

BUS 305 Entrepreneurship

This course covers the process of creating and growing a new business venture through the introduction and development of a business idea. Also covered are the nature and importance of entrepreneurs, international entrepreneurship opportunities, and the development of business and marketing plans. Methods for financing the new venture through the use of case studies and practical applications will be discussed and covered in assignments. Prerequisite(s): Managerial course or Department approval. Credits: 3
(3,0)

BUS 306 Project and Contract Management

This course covers the processes encountered in choosing, planning, controlling, and negotiating of projects and contracts in technologically based firms. Topics include project and contract; feasibility; risk analysis; selection; portfolio optimization; cost estimation and controls; capital budgeting; performance relating to negotiation, adjustments, and benchmark standards; and awareness and appreciation for ethical practices. Note: Students completing this course may not receive credit for IND 306. Prerequisite(s): BUS 109 Credits: 3
(3,0)

BUS 310 Principles of Taxation

This course covers fundamental principles of income taxation under the Internal Revenue Code, related Regulations and court cases. Tax treatment of the individual is stressed, with emphasis on filing status, income and business deductions, and realization and recognition of capital gains and losses. Corporate and partnership taxation are introduced. Students are taught to recognize tax issues and gain the skills necessary to solve those issues. Prerequisite(s): BUS 102 or permission of department chair Credits: 3
(3,0)

BUS 311 Organizational Behavior

This upper-division course presents the concepts of organizational behavior and structure as well as topics relating to motivation content and process theories; group communication and dynamics; decision making; causes and resolutions of organizational conflicts; and factors pertaining to influence, power, and politics in organizations. Note: Students completing this course may not receive credit for PSY 311. Prerequisite(s): BUS 109, or PSY 101 or permission of department chair. Credits: 3
(3,0)

BUS 312 Purchasing and Supply Chain Management

This course covers the purchasing and movement of materials into, through, and out of a firm; fundamentals of domestic and international transportation systems; distribution center, warehouse, and plant location; and management of multinational organizations and supply networks. Note: Students who previously took IND 311 cannot receive credit for this course. Prerequisite(s): BUS 109 Credits: 3
(3,0)

BUS 316 Customer Relations and Quality

This course covers the basics of customer relations and quality in industry. The course includes discussion of quality management principles and standards as well as feedback techniques to measure and assure customer satisfaction. The American Customer Satisfaction Index, J.D. Power and Associates Reports, Malcolm Baldrige National Quality Award, and International Organization for Standardization (ISO) Automotive Quality System QS-9000 registration criteria will also be discussed. Note: Students completing this course cannot receive credit IND 316. Prerequisite(s): BUS 300 or IND 301 Credits: 3
(3,0)

BUS 317 Enterprise Resource Planning

Enterprise Resource Planning (ERP) is an organizational and information systems approach that integrates planning, customer relationship management, decision making, master scheduling, material requirements planning, marketing, finance, electronic commerce, and human resources. The course will include lectures and extensive use of supporting ERP software. Note: Students who have previously completed BUS/IND 313 cannot receive credit for BUS 317. Students completing this course cannot receive credit for BCS 317. Prerequisite(s): BUS 109 Credits: 3
(3,0)

BUS 320 International Marketing

As the interconnectedness of the global economy grows, marketing managers are faced with an imperative to understand and face the challenges posed by the international marketplace, including the challenge of selling goods and services in markets abroad. This course focuses on marketing management within international settings and will cover topics and issues such as international market selection, adaptation of products, international promotion and pricing strategies, and differences in distribution channels, all within the context of national differences in culture, consumer behavior, levels of development, and political, legal, and economic systems. Prerequisite(s): BUS 131 Credits: 3
(3,0)

BUS 321 International Law

This course provides study in the basic concepts and processes of the international legal system. The interaction of state, federal, and international law as well as the relationship of international law and the American legal system are explained. Particular attention is given to current problems faced by managers and to the dominant political, social economic, and technological forces influencing the evolution of international law. Prerequisite(s): BUS 202 Credits: 3
(3,0)

BUS 322 International Management

This course will examine the critical issues and practices of international management. Emphasis will be placed on the multicultural workforce and worldwide developments. Topics will include planning, political risk, organizing, decision-making, and controlling as pertaining to international management and operations. Students will study human resource/personnel issues concerning selection and repatriation, communication skills, and labor relations in a global context. Ethics and social responsibility as well as future trends of international management will be explored. The course will include student assignments and case studies examining the issues affecting small businesses expanding operations into foreign markets. Prerequisite(s): BUS 109, BUS 280 Credits: 3
(3,0)

BUS 327 Risk Management and Insurance

This course is designed to assist the student in the identification and analysis of the major types of financial risk management and insurance. The course will analyze the needs and problems faced by individuals and corporations regarding risk management exposure and how these exposures to risk are addressed through various forms of insurance. Case studies involving risk management, insurance, and relevant ethical factors will be covered. Prerequisite(s): BUS 201 or department approval Credits: 3
(3,0)

BUS 330 Cost Management Systems

This upper-level course pertains to the key elements of cost management systems of manufacturing and service organizations. Topics covered include: using cost drivers and activity based costing; eliminating non-value added activities; costing product (service) life cycles; and justifying capital expenditures for computer integrated manufacturing systems. Prerequisite(s): Two semesters of accounting. Credits: 3
(3,0)

BUS 340 Advanced Business Statistics

This course covers advanced statistical concepts and techniques as applied to decision making and business applications. Topics include: estimating population values, hypothesis testing for one and two populations, analysis of variance, linear regression and correlation analysis, multiple regression analysis and model building, statistical process control, analyzing and forecasting time-series data, and decision-making analysis. Prerequisite(s): BUS 240, statistics course or Department approval. Credits: 3
(3,0)

BUS 350 American Business History

The course focuses on major developments in American business history, covering the period from the early colonial period through the present time. Students will describe and summarize significant historical developments to American industry and business practice, and will analyze and classify major factors influencing business and economic change, including technology, natural resource exploitation, and government policy, with special focus on monetary policy, the gold standard, and tariffs. Students will also interpret modern policy and business practice through the lens of historical business developments. Students will also develop and analyze profiles of American financial and industrial leaders and the companies and industries they created. Note: Students cannot get credit for BUS 350 and 350W. Note: Offered at the discretion of the Business Management Department. Prerequisite(s): BUS 109 Credits: 3
(3,0)

BUS 352 Employment Law

This course reviews the field of law governing employment. Topics covered include the following: Employment relationship and procedure, selection, testing, privacy, termination, and arbitration; employment discrimination regarding the Civil Rights Act, Affirmative Action, racial discrimination, sex discrimination, family leave and pregnancy discrimination, sexual orientation, religious discrimination, national origin discrimination, age discrimination and disability discrimination. Also covered are employment regulations regarding unions and collective bargaining agreements, wage and hour regulations, occupational safety and health, workers' compensation, and employee benefits. Prerequisite(s): BUS 202 Credits: 3
(3,0)

BUS 360 Leadership Theories Practices

The following will be covered: definition and significance of leadership; global and cultural contexts of leadership; early theories and practices: the foundations of modern leadership; individual differences and traits and the ability to lead; leadership and "emotional intelligence;" leadership and "the moral compass;" power, influence, and leadership; new models of leadership; leadership of non-profits; and leading change. Prerequisite(s): BUS 109 Credits: 3
(3,0)

BUS 366 International Human Resource Management

The importance of managing cultural diversity is a critical component to deriving successful outcomes for the workplace endeavor as well as the criteria for individual advancement in one's career in the global arena. The rapidly expanding involvement of the United States in global business activities has created a critical need for international business talent in all areas of business, and in particular, successful management of cultural differences to advance the team and the entity. This course addresses the understanding of cultural differences in global business and the art of negotiation to gain a win/win. Prerequisite(s): BUS 109 Credits: 3
(3,0)

BUS 367 Negotiation and Conflict Resolution

This experiential course is intended to help students understand the theory, processes, and practices of negotiation, and also the cross-cultural issues facing negotiation, so they can be more effective negotiators in a variety of situations. This course is highly participatory, and utilizes various types of one-on-one and group-based negotiation simulations. Prerequisite(s): BUS 109 Credits: 3
(3,0)

BUS 379 Business Internship

This upper division course is designed to give students an opportunity to gain in-depth work experience and skills under the tutelage of a business professional. The work done by the student is guided by objectives agreed to by the work supervisor, Internship Coordinator, and the student. Students are required to submit a written proposal, progress reports in the form of a weekly work experience journal, and a final report to be presented to the Internship Coordinator and work supervisor. Note: No more than 15 credits may be earned in total from BUS 379 and BUS 479 Business Internship II. Prerequisite(s): Junior-level status, Department approval, GPA of 3.0 or better Credits: 3-12
(1,0,6)

BUS 380 Business Internship

This upper division course is designed to give students an opportunity to gain in-depth work experience and skills under the tutelage of a business professional. The work done by the student is guided by objectives agreed to by the work supervisor, Internship Coordinator, and the student. Students are required to submit a written proposal, progress reports in the form of a weekly work experience journal, and a final report to be presented to the Internship Coordinator and work supervisor. Note: No more than 15 credits may be earned in total from BUS 379 and BUS 479 Business Internship II. Prerequisite(s): Junior-level status, Department approval, GPA of 3.0 or better Credits: 3-12
(1,0,15)

BUS 381 Business Internship

This upper division course is designed to give students an opportunity to gain in-depth work experience and skills under the tutelage of a business professional. The work done by the student is guided by objectives agreed to by the work supervisor, Internship Coordinator, and the student. Students are required to submit a written proposal, progress reports in the form of a weekly work experience journal, and a final report to be presented to the Internship Coordinator and work supervisor. Note: No more than 15 credits may be earned in total from BUS 379 and BUS 479 Business Internship II. Prerequisite(s): Junior-level status, Department approval, GPA of 3.0 or better. Credits: 3-12
(1,0,24)

BUS 382 Business Internship

This upper division course is designed to give students an opportunity to gain in-depth work experience and skills under the tutelage of a business professional. The work done by the student is guided by objectives agreed to by the work supervisor, Internship Coordinator, and the student. Students are required to submit a written proposal, progress reports in the form of a weekly work experience journal, and a final report to be presented to the Internship Coordinator and work supervisor. Note: No more than 15 credits may be earned in total from BUS 379 and BUS 479 Business Internship II. Prerequisite(s): Junior-level status, Department approval, GPA of 3.0 or better Credits: 3-12
(1,0,33)

BUS 390 Special Topics in Business Management

This course will provide students the opportunity to learn about contemporary issues in business. Topics covered may include one or more specific areas within business such as Marketing, Leadership, Ethics, and Finance. Methods of teaching and assessment may include the use of seminars, speaker series, simulations, field trips, experiential learning, and the implementation of business ideas and plans. The subject for a particular semester will be announced prior to registration. Prerequisite(s): BUS 109 Credits: 3
(3,0)

BUS 391 Selected Topics in Bus Mngmt

This course will provide students the opportunity to learn about contemporary issues in business. Topics covered may include one or more specific areas within business such as Marketing, Leadership, Ethics, and Finance. Methods of teaching and assessment may include the use of seminars, speaker series, simulations, field trips, experiential learning, and the implementation of business ideas and plans. The subject for a particular semester will be announced prior to registration. Prerequisite(s): BUS 109 Credits: 3
(3,0)

BUS 400 Quality Techniques

This course covers quality tools and techniques used in problem solving and decision making. Topics include: Pareto charts; cause and- effects diagrams; check sheets; histograms; scatter diagrams; quality function deployment; statistical process control; continuous improvement; Goldratt's theory of constraints; benchmarking; just-in time manufacturing; and implementing total quality. A written assignment will be required that integrates quality topics with problem solving and decision making tools and techniques. Note: Students completing this course may not receive credit for IND 400. Prerequisite(s): BUS 240 or MTH 110 Credits: 3
(3,0)

BUS 401 Quality Management

This course covers quality philosophies and concepts. Topics include: quality and global competitiveness; human resources and technology; total quality approach; strategic management; quality management and ethics; partnering for competitiveness; quality culture; customer satisfaction and retention; employee empowerment; leadership and change; team building and teamwork; communication and interpersonal relations; education and training; overcoming politics and negativity toward quality in the workplace; relationship of ISO 9000 and Total Quality Management. A written assignment will be required that integrates quality philosophies and concepts with management and human resources issues. Note: Students completing this course may not receive credit for IND 401. Prerequisite(s): BUS 300 or IND 301 Credits: 3
(3,0)

BUS 404 Financial Markets and Institutions

This senior level course describes the various financial markets and the financial institutions that serve those markets. Specific topics include financial intermediaries, primary and secondary financial markets, treasury and agency securities markets, municipal securities markets, financial futures markets, and stock markets in the U.S. and worldwide. Also included are evolving technologies, especially e-Business and the Internet, and their effect on financial markets and institutions. The course contains oral and written case study analyses utilizing electronic database research techniques. Prerequisite(s): BUS 201 or department approval Credits: 3
(3,0)

BUS 406 Business Organization Law

An introduction to the law of agency, partnerships, corporations, limited liability companies, securities, regulations, bankruptcy, employment and anti-trust laws. Prerequisite(s): BUS 202 or Department approval. Credits: 3
(3,0)

BUS 409 Strategic Management

This course covers key strategic management topics including internal and external scanning for SWOT (strengths, weaknesses, opportunities, and threats) analysis, competitive advantage, cost versus differentiation, horizontal and vertical integration, strategic alliances, strategy implementation, as well as many other important topics. Special attention will be paid to international contexts, issues of ethics and governance, and measurements of strategic success. Students will be required to present oral and/or written case studies and analyses. Students who have previously completed IND 409 cannot receive credit for BUS 409. Note: Students cannot get credit for BUS 409 and 409W; BUS 409W can be used to fulfill the writing intensive requirement. Prerequisite(s): BUS 300, Senior Level status   Credits: 3
(3,0)

BUS 410 Senior Project

This is an independent study course. Students must obtain permission from a Project Advisor before registering for this course. Although there is some flexibility, most senior projects will involve student participation onsite in a company. The topic for the senior project will utilize skills and knowledge acquired in previous Management Technology and related courses. Note: Students completing this course may not receive credit for IND 410 Prerequisite(s): BUS 409 Credits: 3
(3,0)

BUS 411 Financial Statement Analysis

This course covers the main reasons for and techniques used in financial statement analysis. This analysis uses the historical record of companies, as presented in financial statements, to answer questions regarding a firm's credit worthiness and risk; current and projected financial performance; strengths and weaknesses in financial position; and strategy development for future operations. The course includes analysis tools and techniques such as common size financial statements, trend statements, and financial ratios. Also covered will be sources of financial information embodied in corporate annual reports such as the auditor's report; footnotes and supplemental schedules; and SEC Forms 10-K and 10-Q. Prerequisite(s): BUS 201 or department approval Credits: 3
(3,0)

BUS 412 Business, Government and Society

This course covers the interrelationships among business, government, and society. Included also are the ethical, economic, political, and social issues managers face regarding consumers, employees, suppliers, the environment, government laws and regulations, and stockholders. These interrelationships and issues are discussed and analyzed in a managerial context employing stakeholder, historical, and global perspectives. Individual and group case study presentations both in oral and written formats are a major focus of the course. Credits: 3
(3,0)

BUS 413 Advanced Enterprise Resource Planning

This advanced-level Enterprise Resource Planning (ERP) course includes high-level information technology coverage of Scheduling, Planning, MRP, Logistics, Warehousing, Procurement, Quality, Vendor Management, Cost Accounting, Forecasting, KPI, Supply Chain, and Customer Resource Management. Also covered are concepts and software applications, pertaining to product design, development, manufacturing (production), marketing, sales, and field service. This course emphasizes proficiency in all the skill sets typically required within industry practices. Prerequisite(s): BUS 300 or BCS 300 and BUS 317 or BCS 317 Credits: 3
(3,0)

BUS 421 Advanced Topics in Corporate Finance

This advanced corporate financial management course covers topics taken from the Institute of Management Accountants Certified in Financial Management program Part 2CFM examination. Topics covered include working capital policy and management; strategic issues in finance; portfolio and risk management; external financial environment; and employee benefit and pension plans. Prerequisite(s): BUS 201 or department approval Credits: 3
(3,0)

BUS 431 Managerial and Internal Controls Within The Business Enterprise

This senior level course has a strategic orientation and is intended for future managers with responsibilities in the areas of finance, operations, management, information technology, and financial and managerial accounting. The course objectives focus on the appropriate use of internal controls in effectively managing and controlling processes across the business enterprise. In addition, the importance of both the internal and external audit functions are reviewed in conjunction with management's fiduciary responsibilities to the stakeholders of the enterprise. Specific topics include the overall control environment, corporate culture, business ethics and management's responsibilities for implementing, monitoring and reporting on the adequacy of internal operating controls. Prerequisite(s): BUS 201 or department approval Credits: 3
(3,0)

BUS 460 Leadership and Ethics

This advanced-level business management course covers theories, case studies, and skill development applications relating to effective leadership and ethics. Emphasis will be on the interrelated role of laws, cultural norms, attitudes, moral development, situational circumstances, and technologies as determining effects on ethical leadership. Coursework includes leadership-and ethics related research literature and databases. Note: Students cannot get credit for BUS 460 and 460W; BUS 460W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the Business Management Department. Prerequisite(s) BUS 109 or Management course, Senior-level status. Credits: 3
(3,0)

BUS 470 Advanced Accounting

This course covers accounting for partnerships: formation, operation, dissolutions, and liquidation. Also covered are analysis of business combinations; statutory mergers, consolidations, acquisition of subsidiaries, preparation of consolidated financial statements including the equity method and elimination entries. Additionally, the course includes an introduction to foreign currency translation and transactions, the SEC, and the Sarbanes-Oxley Act. Prerequisite(s): BUS 272 or Department approval. Credits: 3
(3,0)

BUS 471 Auditing

This course covers professional ethics and possible legal liability of the auditor. Emphasized are Generally Accepted Standards (GAAS) and other standards related to attestation engagements and skills needed to apply that knowledge in and other attestation engagements; the role of internal control; uses of sampling; effects of information technology the reports rendered by auditors; and the methods for preparing communications to satisfy engagement objectives. Prerequisite(s) BUS 272 Credits: 3
(3,0)

BUS 473 Global Finance

Introduces students to financial management in the context of international and global market and firm activities. Topics presented include international financial markets, foreign exchange markets, exchange rates, portfolio management from a global perspective, risk management, international banking, and multinational financial management. Prerequisite(s): BUS 201, 280 Credits: 3
(3,0)

BUS 479 Business Internship II

This senior-level course is designed to give students who have completed BUS 379 an opportunity to continue to gain in-depth work experience and skills under the tutelage of a business professional. The work done by the student is guided by objectives agreed to by the work supervisor, Internship Coordinator, and the student. Students are required to submit a written proposal, progress reports in the form of a weekly work experience journal, and a final report to be presented to the Internship Coordinator and work supervisor. Note: No more than 15 credits may be earned in total from Business Internships, BUS 379 and BUS 479. Prerequisite(s): BUS 379, or BUS 380 or BUS 381 or BUS 382, Senior-level status, Department approval, GPA 3.0. Credits: 3-12
(1,0,6)

BUS 480 Business Internship II

This senior-level course is designed to give students who have completed BUS 379 an opportunity to continue to gain in-depth work experience and skills under the tutelage of a business professional. The work done by the student is guided by objectives agreed to by the work supervisor, Internship Coordinator, and the student. Students are required to submit a written proposal, progress reports in the form of a weekly work experience journal, and a final report to be presented to the Internship Coordinator and work supervisor. Note: No more than 15 credits may be earned in total from Business Internship, BUS 379 and BUS 479. Prerequisite(s): BUS 379, or BUS 380 or BUS 381 or BUS 382, Senior-level status, Department approval, GPA 3.0. Credits: 3-12
(1,0,15)

BUS 481 Business Internship II

This senior-level course is designed to give students who have completed BUS 379 an opportunity to continue to gain in-depth work experience and skills under the tutelage of a business professional. The work done by the student is guided by objectives agreed to by the work supervisor, Internship Coordinator, and the student. Students are required to submit a written proposal, progress reports in the form of a weekly work experience journal, and a final report to be presented to the Internship Coordinator and work supervisor. Note: No more than 15 credits may be earned in total from Business Internship, BUS 379 and BUS 479. Prerequisite(s): BUS 379, or BUS 380 or BUS 381 or BUS 382, Senior-level status, Department approval, GPA 3.0. Credits: 3-12
(1,0,24)

BUS 482 Business Internship II

This senior-level course is designed to give students who have completed BUS 379 an opportunity to continue to gain in-depth work experience and skills under the tutelage of a business professional. The work done by the student is guided by objectives agreed to by the work supervisor, Internship Coordinator, and the student. Students are required to submit a written proposal, progress reports in the form of a weekly work experience journal, and a final report to be presented to the Internship Coordinator and work supervisor. Note: No more than 15 credits may be earned in total from Business Internship, BUS 379 and BUS 479. Prerequisite(s): BUS 379, or BUS 380 or BUS 381 or BUS 382, Senior-level status, Department approval, GPA 3.0. Credits: 3-12
(1,0,33)

BUS 483 Business Internship II

This senior-level course is designed to give students who have completed BUS 379 an opportunity to continue to gain in-depth work experience and skills under the tutelage of a business professional. The work done by the student is guided by objectives agreed to by the work supervisor, Internship Coordinator, and the student. Students are required to submit a written proposal, progress reports in the form of a weekly work experience journal, and a final report to be presented to the Internship Coordinator and work supervisor. Note: No more than 15 credits may be earned in total from Business Internship, BUS 379 and BUS 479. Prerequisite(s): BUS 379, or BUS 380 or BUS 381 or BUS 382, Senior-level status, Department approval, GPA 3.0. Credits: 3-15
(1,0,42)

BUS 494 Seminar in Global and International Business

This capstone course for global business management majors will cover a wide range of current issues in strategy and policy and integrates concepts from across the core global business courses. Students will be required to synthesize and apply these methods and concepts to case studies and case write-ups. The course will culminate with students developing and completing a research project and presentation based upon their personal interest in global/international business. Prerequisite(s): BUS 280, 320, 322, and 409 Credits: 3
(3,0)

BUS 502 Project Management

This course covers the core knowledge of the project management professions. It includes the creation of the project charter and scope statement, establishment of the Work Breakdown Structure (WBS), and communication of the overall plan including risk planning, resource planning, creation of the project schedule and budget, development of the project team, and measurement and control of project implementation. Course content is aligned with Project Management Professional Certification requirements, such that the course serves as a preparation for the PMP examination (PMP examination is not part of the course). Prerequisite(s): Graduate Status in ETM and permission of the graduate coordinator. Credits: 3
(3,0)

BUS 504 Technology Management Ethics and Policies

This course defines ethics in the context of engineering technology management and its application in the context of the profession and licensure. It also covers the role of ethics during the bidding stage. This course addresses ethics for union and management, the role of ethics in the event of a change order, and ethics in private versus public ventures. Other topics covered are ethics in domestic versus international markets, the application of ethics in a twenty-first century global market, individual responsibilities and values, cultural background and its effect on ethics, peer review and peer attitudes toward s ethics, and leadership, power and the politics of ethics. This course uses real-life case studies as recorded by the National Society of Professional Engineers (NSPE). Prerequisite(s): Graduate Status in ETM and permission of the graduate coordinator. Credits: 3
(3,0)

BUS 532 Legal Aspects of Construction Management

This course covers the complexity of legal environments in construction. It includes principles of contract, standard forms of contract, contractual relationships, bidding documents, dispute resolution, red-flag clauses, labor agreements, insurance and surety bonds, change order management, differing site conditions, delays, suspensions and terminations, liquidated damages, allocating responsibility for delays, constructive acceleration, and associated documentation. Prerequisite(s): BUS 504 with a grade of C or higher, and Graduate Status in ETM and permission of the graduate coordinator. Credits: 3
(3,0)

BUS 630 Decision Making and Risk Management

This course covers concepts and methods for making complex decisions in Technology Management. Students will identify criteria and alternatives, set priorities, and engage in allocating resources, strategic planning, resolving conflict, and making decisions. Students will select the most effective decision making approaches to evaluate multiple alternatives in scenarios with conflicting objectives and different levels of uncertainty. Students will also learn how to generate risk management plans, appraise mitigating risk options and revise decision making failures Prerequisite(s): Graduate status in ETM and permission of the graduate coordinator. Credits: 3
(3,0)

BUS 670 Master's Project

This is a Capstone course for students who do not plan to take the thesis option. The course is designed as an independent study in which the student utilizes their knowledge in the field to evaluate a series of case studies. A complete oral and written presentation is required of each student detailing his/her work. In each case study the student must clearly demonstrate their ability to understand, analyze and solve technical and/or managerial problems by applying their knowledge gained through their course work. Students completing this course will not receive credit for ETM 670. Prerequisite(s): Completion of twenty-one (21) credits of required Core and Track Specific Courses in the ETM program and permission of graduate coordinator. Credits: 3
(3,0)

BUS 671 Master's Thesis

This is an independent study performed by the students to utilize their knowledge in engineering technology management. This practice-oriented work contributes to the enhancement of productivity, the improvement of quality, and the achievement of an industry's cost effectiveness. The master's thesis draws on students' individual interests, stimulating their critical thinking, and sharpening their problem-solving abilities. A literature survey, analysis, discussion, and conclusions are documented in the thesis under the direction of a faculty mentor and presented by the student at the completion of the work to demonstrate his/her professional competency in their field of study. Students completing this course will not receive credit for ETM 671. Prerequisite(s): Completion of twenty-one (21) credits of required Core and Track Specific Courses in the ETM program and permission of graduate coordinator. Credits: 1-6
(1 to 6,0)

BUS 680 Special Topics in Tech Mgmnt

This special topics course is designed to inspire students to study a specific topic or several related topics that address a special interest in technology management. It will require students to research, investigate, and analyze design, manufacturing, quality, or production issues. The course strategy is established by the instructor and adjusted to respond to students' interest to achieve the class goal of enhancing in-depth understanding of the subject matter. Students taking ETM 680 cannot get credit for BUS 680. Prerequisite(s): Graduate status in Technology Management and permission of the graduate program coordinator. Credits: 3
(3,0)

CHINESE

CHI 151 Chinese I

A beginning course in Chinese emphasizing the gradual development of the four language skills: listening, speaking, reading and writing with stress on communicative competence and cultural awareness.
Credits: 3
(3,0)

CHI 152 Chinese II

A continuation of Chinese 151. This course emphasizes the gradual development of the four language skills: listening, speaking, reading and writing with stress on communicative and cultural awareness. Prerequisite(s): CHI 151 or 2-3 years of high school Chinese. Credits: 3
(3,0)

CHEMISTRY

With the exception of CHM 111 and CHM 112, both theory and laboratory components must be completed simultaneously in order to receive credit for any chemistry course.

CHM 111 Chemistry and the Public Interest

An abridged course in General Chemistry which presents the ideas and methods of chemical science in a qualitative and conceptual fashion. This course assumes no previous science background and will emphasize the fundamentals of measurement, atomic theory, bonding, solutions, acids and bases, salts, equations, chemical arithmetic and energy transfer. Illustrations and applications of concepts will be drawn from everyday life. (This course is intended to fulfill the science requirements of non-science majors and is NOT OPEN to science, health science, or pre-health majors). Prerequisite(s): MP2 or MTH 015
Credits: 3
(3,0)

CHM 112L Chemistry and Public Interest Lab

A one semester laboratory course for non-science majors designed to provide students with experience in the methods of chemistry. Students will investigate the properties of substances, perform chemical analysis and substance identification, synthesize a drug and a natural product, and test manufacturers' claims for consumer products. Prerequisite(s): MP2 or MTH 015 Credits: 1
(0,2)

CHM 124 Principles of Chemistry

A one semester survey of general chemistry. Emphasis is placed on quantitative applications of chemical concepts. Topics include: measurement, matter and energy, atomic structure, periodic table, chemical bonding, nomenclature, chemical stoichiometry, chemical equations, gases, liquids and solids, solutions, acids and bases, equilibrium and kinetics. This course will fulfill the requirement of certain science, health science, or pre-health programs that have an introductory chemistry course as a prerequisite. Note: the laboratory course CHM 124L is a part of your grade for this course. Attendance in the laboratory course is required. Approved eye-protection and a laboratory coat are required materials. A student must pass the laboratory course to receive a passing grade in the entire course. Prerequisite(s): MP2 or MTH 015 Credits: 4
(3,3)

CHM 140 Introduction to General, Organic and Biochemistry

A one semester course with laboratory designed primarily for Dental Hygiene students. Basic principles of general, organic and biochemistry are presented with emphasis on their applications to health science. Topics include measurement, states of matter, bonding theory, solutions, acids, buffers and pH, and the structure and function of carbohydrates, lipids, sterols, amino acids and proteins and a molecular approach to enzymatic action, digestion, metabolism and nutrition. Note: the laboratory course CHM 140L is a part of your grade for this course. Attendance in the laboratory course is required. Approved eye-protection and a laboratory coat are required materials. A student must pass the laboratory course to receive a passing grade in the entire course. Prerequisite(s): MP2 or MTH 015 and High School chemistry with Laboratory or CHM 124. Credits: 4
(3,2)

CHM 152 General Chemistry Principles I

The first part of a two semester sequence in General Chemistry Principles with laboratory. This course covers the qualitative and quantitative aspects of scientific measurement, the nature of matter, gases, liquids and solids, energy, atomic theory, properties of elements, chemical bonding, molecular structure and properties, stoichiometry, thermochemistry and solutions. Note: the laboratory course CHM 152L is a part of your grade for this course. Attendance in the laboratory course is required. Approved eye-protection and a laboratory coat are required materials. A student must pass the laboratory course to receive a passing grade in the entire course. Prerequisite(s): (MP3, RMAT, RMTB, or MTH 116) and (Regents Chemistry or an equivalent High School Chemistry with Laboratory or CHM 124) Credits: 4
(3,3)

CHM 153 General Chemistry Principles II

A continuation of General Chemistry Principles I, which includes laboratory. Topics include: solutions and their colligative properties, acids and bases, chemical equilibrium, ionic equilibrium, pH, buffers, titration curves, oxidation and reduction balancing, electrochemistry, chemical kinetics, the covalent bond and the shape of molecules. Note: the laboratory course CHM 153L is a part of your grade for this course. Attendance in the laboratory course is required. Approved eye-protection and a laboratory coat are required materials. A student must pass the laboratory course to receive a passing grade in the entire course. Prerequisite(s): CHM 152 Credit: 4
(3,3)

CHM 260 Fundamentals of Organic Chemistry

A one semester course in organic chemistry designed to provide background in the fundamentals of nomenclature, mechanisms, structures, and synthesis of carbon based compounds. This course is designed for science and health science majors who desire a general rather than a detailed knowledge of the compounds of carbon. Topics to be covered include: structure and bonding, acid/base chemistry, isomerism, stereochemistry, and structure determination. Functional groups to be covered include: hydrocarbons, alcohols, ethers, aldehydes and ketones, carboxylic acids, carboxylic acid derivatives and amines. Laboratory work will include common organic techniques and experiments supporting the principles covered in lecture. Note: the laboratory course CHM 260L is a part of your grade for this course. Attendance in the laboratory course is required. Approved eye-protection and a laboratory coat are required materials. A student must pass the laboratory course to receive a passing grade in the entire course. Prerequisite(s): CHM 153 Credits: 4
(3,3)

CHM 270 Organic Chemistry I

A study of the compounds of carbon involving a thorough integration of observation and theory and emphasizing the relationships between structures, properties, mechanisms and reactions. This course, intended for science and pre-professional majors, covers topics such as bonding and structure, alkanes, alkenes, alkynes, cycloaliphatic hydrocarbons, stereochemistry, dienes, benzene, electrophilic aromatic substitution, arenes, spectroscopy and structure determination. Note: the laboratory course CHM 270L is a part of your grade for this course. Attendance in the laboratory course is required. Approved eye-protection and a laboratory coat are required materials. A student must pass the laboratory course to receive a passing grade in the entire course. Prerequisite(s): CHM 153 Credits: 5
(3,4)

CHM 271 Organic Chemistry II

A continuation of CHM 270. Topics covered include: alkyl and aryl halides, alcohols and phenols, ethers and epoxides, carboxylic acids, esters, anhydrides, aldehydes, ketones, amines, amino acids, carbohydrates, heterocycles and polymers. Note: the laboratory course CHM 271L is a part of your grade for this course. Attendance in the laboratory course is required. Approved eye-protection and a laboratory coat are required materials. A student must pass the laboratory course to receive a passing grade in the entire course. Prerequisite(s): CHM 270 with a grade of C- or higher Credits: 5
(3,4)

CHM 380 Biochemistry

A one semester course covering the fundamentals of biochemistry. Topics covered include: the structure and function of important biomolecules such as carbohydrates lipids, amino acids, proteins and nucleic acids; enzyme kinetics and the use of cofactors and coenzymes; and metabolic pathways including glycolysis, TCA, electron transport system, fatty acid and amino acid pathways. Laboratory work includes current biochemical laboratory techniques such as chromatography and electrophoresis, application of specific topics described above, and analysis of data from laboratory experiments. Note: the laboratory course CHM 380L is a part of your grade for this course. Attendance in the laboratory course is required. Approved eye-protection and a laboratory coat are required materials. A student must pass the laboratory course to receive a passing grade in the entire course. Prerequisite(s): CHM 260 or CHM 271 Credits: 4
(3,3)

CHM 381 Advanced Biochemistry

A continuation of the concepts covered in Biochemistry. Students will examine the pathways, enzymes, and organic chemical mechanisms involved in the metabolic pathways of carbohydrates, lipids, amino acids, nucleic acids, and photosynthesis. Additional emphasis will be placed on the unique coenzymes that are required for these metabolisms. Students will also be trained in reading and interpreting research publications in biochemistry. Prerequisite(s): CHM 271 and CHM 380 Credits: 3
(3,0)

CHM 480 Chemistry Research I

Chemistry Research I represents substantial projects or work experiences for 135 hours earning 3 credits. Students will work alongside chemistry faculty in their professional research. Registration requires submission of resume three months in advance, chemistry faculty invitation or recommendation, and department chair approval. Prerequisite(s): CHM 270 and Permission of Department Chair. Credits: 3
(0,0,9)

CHM 481 Chemistry Research II

Chemistry Research II represents substantial projects or work experiences for 135 hours earning 3 credits. Students will work alongside chemistry faculty in their professional research. Registration requires submission of resume three months in advance, chemistry faculty invitation or recommendation, and department chair approval. Prerequisite(s): CHM 480 with a grade of B or higher and Permission of Department Chair. Credits: 3
(0,0,9)

CONSTRUCTION MANAGEMENT

CON 101 Introduction to Technology and Applied Programming
A survey of technological concepts, terminology and a brief review of mathematical concepts. This course introduces concepts of vector and its applications. It introduces hands-on programming and its applications, and reviews problem-solving techniques with technological applications. Credits: 2
(1,2)

CON 103 Surveying
The development of skills in the use of the basic surveying instruments-tape, level, transit. Trigonometric and differential leveling and cross-sectioning. Azimuth, bearing and angle determination by repetition procedures. Angular closures. Stadia and stadia reduction of inclined sights, topographic mapping by transit stadia and plan table methods. This course will include a field laboratory assignment. Credits: 3
(2,3)

CON 106 Statics
This is a basic course in Statics. The main objective of this course is to provide the student with a basic understanding of the principles of statics. Topics such as resultant of a force, equilibrium of forces, moments, couples, analysis of simple trusses, centroids, center of gravity, moments of inertia and friction are covered in this course. Prerequisite(s): MTH 129 Credits: 3
(2,2)

CON 111 Graphics I
To develop student's abilities in lettering, technical sketching, drafting and the use of drafting instruments. The fundamentals of orthographic projection and pictorial drawings develop the student's abilities to visualize and describe objects and structures graphically. Credits: 2
(1,2)

CON 121 Graphics II
To continue the development of the graphic skills from Graphics I to include one and two point perspective drawing and the introduction of descriptive geometry. Also included is an extensive use of computer-aided drawing on AutoCad. Prerequisite(s): CON 111 Credits: 2
(1,2)

CON 161 Materials and Methods of Construction I
An introduction to the engineering properties and the uses of construction materials including soils, concrete, masonry, steel and wood. Classroom testing demonstrations of several materials are included. Conventional construction systems are studied. The student is also given an orientation to the construction industry, the associated professions, and the varieties of employment available. Note: Students cannot get credit for CON 161 and 161W; CON 161W can be used to fulfill the writing intensive requirement which is offered at the discretion of the Architectural/Construction Management Department Credits: 3
(3,0)

CON 162 Materials and Methods of Construction II
A continuation of CON 161 extended to include the study of architectural properties of selected materials, methods of construction, and building components. Class work includes technical problem solving using quantitative and graphic analysis of specific building construction systems. Prerequisite(s): CON 161   Credits: 3
(3,0)

CON 207 Elements of Strength of Materials
Introduces to the concepts of stress, strain, bending and shear stresses, including elasticity, shear and moment diagrams for beams, moment of inertia of unsymmetrical sections, thermal and combined stresses. Laboratory demonstration of experiments and testing equipment are included. Prerequisite(s): CON 106 or MET 201 Credits: 3
(2,2)

CON 251 Architectural Design I
Drafting standards, techniques and creative design principles related to the field of architecture. Freehand drawing design problems with the development of research notes, preliminary studies and architectural presentation drawings. Credits: 3
(2,3)

CON 299 Construction/Architecture Internship
A program of practical experience and independent study to supplement and enrich classroom learning. It is a fully faculty supervised structured industrial experience. Periodical written reports and end of the assignment employer report required. Prerequisite(s): 3rd Semester status, and Department Chair approval Credits: 3
(1,0,6)

CON 302 Soils, Foundations and Earth Structure
This course introduces soil mechanics, foundation and earth structure to the engineering technology students. It includes soil classification, soil properties, soil stresses, earth pressures, bearing capacity, slope stability. It also discusses principles of foundation analysis and design, retaining walls, etc. Laboratory experiments to test behavior of soils included. Prerequisite(s): CON 207 Corequisite(s): CON 302L Credits: 3
(2,2)

CON 303 Hydraulics
This course provides a broad understanding of the basic principles of engineering hydraulics and hydrology. The emphasis is on application of the theories. It involves basic principle of hydraulics, flow in closed conduits, flow in open channels, hydraulic structures, principles of hydrology, groundwater hydraulics, and related laboratory experiments. Computer application included. Prerequisite(s): CON 207 and PHY 136 Corequisite(s): CON 303L Credits: 3
(2,2)

CON 350 Introduction to Construction Engineering
This course introduces construction engineering principles and methods and equipment used in heavy and commercial construction. It includes earthmoving excavating, loading and hauling, rock excavation, compressed air and water systems, tunneling, and some selected topics from building construction. Prerequisite(s): CON 162 and CON 207 Credits: 3
(3,0)

CON 355 Construction Management Financial and Accounting Principles
This course covers basic construction financing and cost accounting systems, job costing approaches, project budgeting, financial reporting procedures, forecasting financial needs, time value of money, evaluating investments, construction loans and credit, the impact of taxes and life cycle analysis. Computers applied as required. Prerequisite(s): BUS 109 and Junior level status Credits: 3
(3,0)

CON 357 Quantity Surveying and Costing

This course focuses on fundamentals of quantity survey and costing of residential and commercial facilities. Quantification of materials from construction drawings is covered in this course. Topics also covered range from site work, forms, concrete, metals and masonry, plumbing and electrical to wood framing and steel framing. The course also introduces fundamentals of computer assisted estimating.
Prerequisite(s): CON 162 Credits: 3
(3,0)

CON 361 Government Building, Environmental Codes and Regulations

This course studies the concepts in preparation of an environmental impact statement. It also reviews state and local building and land use controls. Attention will be given to governmental regulations required to obtain building permits for particular construction projects.
Prerequisite(s): CON 162 Credits: 3
(3,0)

CON 365 Highway Design and Construction

Design criteria for roadways including arterial signalization speed considerations, visual constraints and reaction criteria. Superelevation and spiral curve criteria. Construction quantification, haul considerations and mass curve analysis. Traffic considerations, destination surveys and road saturation criteria. Intersection analysis, striping, signage and lighting. Barriers, types and design considerations. Economic analysis and environmental constraints. Appurtenant structure consideration such as drains, curbing, curb cuts and ramps. Pavement stability. Prerequisite(s): CON 303 Credits: 3
(3,0)

CON 399 Applied Research Topics

A program of applied research and independent study on topics a faculty member is currently working on. This course is meant to enrich the learning experience by introducing the student to methods and analysis in applied research. This is a fully faculty directed and supervised structured research experience. Applied research work will be presented in an appropriate forum. Prerequisite(s): Associate degree in Construction Technology or third year standing in a Construction Technology program. Credits: 3
(1,0,6)

CON 401W Construction Project Management and Scheduling (Writing Intensive)

This course gives an in-depth introduction and orientation to construction project management. This includes professional construction management in practice and methods in professional construction management. Some of the areas this course will cover are: Bidding and Award, Application of Controls, Scheduling, Planning and Control of Operations and Resources, Procurement Quality Assurance, Safety and Health in Construction, Industrial Relations. Computer Applications included. This is a writing-intensive course. Note: Students cannot get credit for CON 401 and 401W; CON 401W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the Construction/Architectural Management Department Prerequisite(s): CON 162 and EGL 101 with a grade of C or higher Credits: 3
(3,0)

CON 402 Civil Engineering Materials

This course covers a study of the materials used for Civil Engineering construction purposes. The materials to be studied are concrete, steel, asphalt and wood. The physical parameters which contribute to material performance are studied. Appropriate laboratory tests are included. Documents from the American Concrete Institute and the American Society of Testing material will be used. Prerequisite(s): CON 162 Corequisite(s): 402L Credits: 3
(2,2)

CON 405 Advanced Estimating

This course attempts to give the students a broader perspective based on the various roles an estimator may play that requires preparation or interpretation of cost data. It provides an understanding of the importance of accurate estimating in controlling project cost and in determining project budgets. It includes references and examples that cover the wide range of project types. It also covers present computer technology in the field of estimating. Prerequisite(s): CON 357 Credits: 3
(3,0)

CON 406 Advanced Project Planning and Scheduling

CON 406 Advanced Project Planning and Scheduling. Topics include introduction to advanced project planning concepts and terminology, development of schedule activities and preparing and maintaining computerized schedules. Introduction to Building Information Modeling (BIM). Prerequisite(s): CON 401W Credits: 3
(3,0)

CON 407 Building Commissioning

This course provides various aspects of Building Commissioning process that includes verifying all the subsystems of a building such as HVAC, plumbing, electrical, fire/life safety, building envelopes, lighting etc. Students will develop an understanding of the relationships between new construction and LEED Building Commissioning credits. Laboratory tests on start up and optimization of energy uses of HVAC, Electrical and Plumbing components are included. Prerequisite(s): ARC 263 Credits: 3
(2,2)

CON 408 Structures

This course introduces fundamentals of structural analysis for beams, trusses, frames, etc. It includes statically determinate as well as indeterminate structures. This course also introduces fundamentals of reinforced concrete design including strength design for beams, columns, footings, and two way slabs. Computer application included. Prerequisite(s): CON 207 Credits: 3
(2,0,2)

CON 409 Structural Design

This course introduces fundamentals of structural steel design with basic frame analysis. This includes design of tension members, compression members, beams, columns, and various connections. This course also teaches the basic principles of wood design, which includes formwork design and frame construction. Computer application is included. Prerequisite(s): CON 207 Credits: 3
(2,0,2)

CON 496 Capstone Project

This is a capstone course. It utilizes skills and knowledge acquired in various courses in the curriculum and general education courses to produce a real life project. In this course, students follow a faculty driven structured process to integrate various components of a project. This course introduces very little new material, rather it helps the student to synthesize skills and knowledge learned in other courses to apply in real-life situations. Prerequisite(s): Department Approval, Upper Division Status and substantial completion of the program. Credits: 3
(2,0,3)

CON 497 Senior Project I

Part I of a two part capstone course. Involves writing the proposal and researching background for Part II of Senior Project CON 498. It will utilize skills and knowledge acquired in various curriculum and non curriculum courses to solve a real life construction problem. It will involve an independent investigation of a technical problem of interest to both the student and a faculty member who shall act as Project Advisor.
Credits: 1
(0,3)

CON 498 Senior Project II

Part II of two part capstone course. Involves investigation of proposed problem, including test, analysis, design, etc. along with formal report and presentation to senior project faculty committee. It will utilize skills and knowledge acquired in various curriculum and non curriculum courses to solve a real life construction problem. It will involve an independent investigation of a technical problem of interest to both the student and a faculty member who shall act as Project Advisor. Credits: 2
(0,6)

CON 499 Senior Project

This is a capstone course. It will utilize skills and knowledge acquired in various curriculum and non curriculum courses to solve a real life construction problem. It will involve an independent investigation of a technical problem of interest to both the student and a faculty member who shall act as Project Advisor. Credits: 3
(0,9)

COMPUTER SECURITY TECHNOLOGY

CPS 201 Digital Systems & Security

The course will examine the security threats to digital information, computer systems and networks. Students will learn about the principles of digital systems, including computer architecture and programming, digital information, and techniques to maintain the confidentiality, integrity and availability of information. Topics will include risk assessment, security awareness, security policy, security auditing, and legal and ethical aspects. The course will prepare the students with background knowledge in cryptography, biometrics, software security and network security. Prerequisite(s): EET 105
Credits: 3
(3,0)

CPS 203 Data Security & Privacy

In this course, students will learn about the security issues with data that relates to personal and organizational privacy. The students will develop the skill to identify and address critical security and privacy issues involved in the design, development and deployment of information systems. Students will be able to design and maintain the security of database containing the confidential information such as Electronic Medical Records and Biometric Data. Topics will also include legal and policy perspectives of privacy in the digital age. Prerequisite(s): CPS 201 Credits: 3
(3,0)

CPS 205 Digital Signal & Image Proecessing

This course will examine the fundamental concepts of digital signals and image in relation to security applications. Topics will include signal and image characteristics, acquisition, quantization, filtering, enhancement, spectral analyses, feature extraction, segmentation, and morphological transformation. Students will be trained on algorithm and mathematical tools, and practical applications of Digital Signal and Image Processing techniques. The course will also examine the digital video and its applications to security field. Prerequisite(s): CPS 201 Credits: 3
(3,0)

CPS 301 Biometric Recognition

This course will examine the concepts of automated human recognition with anatomical biometrics and behavioral biometrics. It focuses on biometric system design, biometric image and signal processing, biometric sensor technology, and anti-spoofing technology. Students will learn how each biometric works, how to process non-ideal biometric signals and images, and how to choose the right biometrics for different applications. The course also covers the security and privacy issue of biometrics. Prerequisite(s): CPS 205 Credits: 3
(3,0)

CPS 303 Operating System & Security

This course presents the state of the art of OS security to students. It covers OS-level mechanisms, and how they relate to mitigating and defending against malware attacks on computer systems, such as buffer overflow, remote access Trojan, self-propagating worms, large-scale botnets, etc. Basic OS security techniques such as logging, system call auditing, address space randomization, memory protection, virtual machine introspection (VMI) will be discussed. Other techniques, such as host-based intrusion and detection, system randomization, vulnerability fingerprinting, and virtualization, will also be introduced. Prerequisite(s): CPS 201 Credits: 3
(3,0)

CPS 305 Foundations of Cryptography

This course examines the mathematical principles underlying encryption and cryptanalysis. It covers cryptology-related concepts in Number Theory, Group Theory, Linear Algebra, and Probability Theory. It introduces algebraic structures such as groups and fields, and covers fundamental algorithms for integer arithmetic such as primality testing and integer factorization. Upon successful completion, students will have a solid foundation to learn a variety of cryptographic algorithms. Prerequisite(s): (MTH 130 or MTH 150) and CPS 201 Credits: 3
(3,0)

CPS 401 Applied Cryptography

This course examines the inner workings of modern symmetric and public-key cryptosystems and algorithms, including DES, AES, MD5, SHA-1/2/3, RSA, multi-party computation, and elliptic curve cryptography (ECC), and the constructions of Message Authentication Code (MAC) and Digital Signature (DS). It examines the privacy applications of cryptography supporting anonymous credentials and private database lookup. Lattice-based cryptography will also be examined. Prerequisite(s): CPS 305 Credits: 3
(3,0)

CPS 405 Senior Project

This capstone course will require students to employ the technical knowledge they gathered throughout the curriculum in order to carry out an independent research project on a topic related to computer security technology. Under supervision of a Faculty member, students will produce creative projects, generate research papers, and present their work. Prerequisite(s): CPS 401 Credits: 3
(3,0)

CPS 460 Network Security

This course will examine the security threats to computer networks and techniques to secure network. Topics will include network components and protocols, access control, firewall, honeypot, intrusion detection, virtual private network, vulnerability assessment, malware propagation, denial of service attacks, investigation of network data, and security protocols. At the conclusion of the course, students will have a full understanding of security design, network monitoring, and response to network attacks. Prerequisite(s): CPS 303 Credits: 3
(3,0)

CPS 461 Penetration Testing

This course will cover a broad base of topics in ethical hacking, network defense, and offensive security. It aims to immerse students into an interactive environment where they will learn how to scan, test, and secure information systems. Students will gain in-depth knowledge and practical experience with network systems. By gaining a thorough understanding of how hackers operate, a student will be able to set up strong countermeasures and defensive systems to protect an organization's critical infrastructure and data. The students will discuss the various legal issues associated with the pen-testing and ethical hacking. Prerequisite(s): CPS 460 Credits: 3
(3,0)

CPS 462 Smart Grid Security

The course examines the fundamentals of smart power grid and the necessary background in computer security. It covers both cyber security and physical security across operational aspects of smart grid and discusses a variety of secure solutions to the smart grid, including identity management and access control, threat defense, datacenter security, WAN security, security monitoring and management, physical safety and security, generation plant security, substation security, and utility regulatory compliance. Prerequisite(s): CPS 460 Credits: 3
(3,0)

CPS 463 Distributed Systems & Security

This course explores the design and implementation of secure distributed systems. The main goal focuses on the techniques for creating functional, usable, scalable, and high-performance distributed systems with security as a built-in factor. It covers the principles and techniques behind the design of distributed systems, such as locking, concurrency, scheduling, remote procedure call and transparency, distributed shared memory, update conflicts, and the security components, such as cryptographic primitives, user authentication, secure-socket layer, imperfect communication and other types of failure, software vulnerabilities and exploits, intrusion detection and prevention. Other topics may be covered including cluster-based IP Router, Onion routing, Distributed systems at Data Center, Cloud computing and Google File System. Prerequisite(s): CPS 303 and CPS 401 Credits: 3
(3,0)

CRIMINAL JUSTICE

CRJ 100 Introduction to Criminal Justice

Philosophical and historical background of policing throughout the free world; special emphasis is placed on the heritage of British and American policing, the governmental role of law enforcement in society; administration of American justice at all levels of government. The role of technology in law enforcement and crime prevention; history, modes and impact. Credits: 3
(3,0)

CRJ 101 Law Enforcement and Community Relations

Emphasis will be placed on the numerous and complex factors involved in the areas of human relations as they affect law enforcement. An examination of prejudices, myths, and discrimination, how to control them, and their impact in law enforcement. The use of information management tools for classifying cases with respect to issues of bias. Credits: 3
(3,0)

CRJ 102 Juvenile Delinquency

An introduction and an orientation to the causes and treatment of juvenile delinquency; an examination of the methods of handling juvenile offenders, including interviewing techniques, screening, and referrals to social agencies. Credits: 3
(3,0)

CRJ 105 Corrections in America

This course will discuss the history of the US correctional systems as a series of penal reforms. It will also explore the theoretical principles and critiques that direct and influence correctional policies and practices, past and present. In addition, it will investigate the populations and operations of various correctional institutions and programs: inmates and offices, jails, prisons, and community forms of correction. It will further assess the problems and challenges of current correctional practices: aging populations, mental illness, and HIV/AIDS. Moreover, it will consider the future of corrections in the context of what has been called "a culture of control". Credits: 3
(3,0)

CRJ 115 Computer Forensics

This course is an orientation to the study of computer forensic methods. The course will include an analysis of computer hardware that is utilized in forensic investigations such as motherboards, BIOS settings, hard and floppy disk drives and controllers, SCSI controllers and drives and implementations, RAID controllers, boot sequences and related components. Also, this course will introduce the student to methods used in analyzing data storage devices and will include an examination of the physical structures, surfaces and formats of hard disks and other media. Credits: 3
(3,0)

CRJ 200 Criminal Investigation

Introduction to criminal investigation, technical methods used at the crime scene; development of clues, identification of suspects; criminal investigation procedures including the theory of an investigation; conduct at crime scenes; collection and preservation of physical evidence, analysis of the elements that constitute all crimes.   Note: The course may be offered as a writing intensive course at the discretion of the Criminal Justice Department. Students cannot get credit for both CRJ 200 and CRJ 200W. Prerequisite(s): CRJ 100 Credits: 3
(3,0)

CRJ 201 Criminalistics

The role of the Crime Laboratory in the law enforcement organization; scope of a criminalistic operation; organizational orientation of the criminalistics laboratory. Reconstruction of the crime scene through computer animation methods. Prerequisite(s): CRJ 100 and CRJ 200 Credits: 3
(3,0)

CRJ 203 Criminology

This course introduces anthropological, biological and economical, ecological, philosophical, psychological, psychiatric and sociological theories of criminal behavior as well as research evidence on the basic patterns of crime and crime trends. Computer-based data analysis of index crimes selected from the Uniform Crime Reports compiled by the Federal Bureau of Investigation and National Crime Victimization Survey. Prerequisite(s): CRJ 100 Credits: 3
(3,0)

CRJ 204 Criminal Law

Elements and proof of frequent concern in law enforcement, with reference to principal rules of criminal liability. Importance of criminal law at the enforcement levels is considered from crime prevention to courtroom appearance. Particular emphasis will be placed on the New York State Penal Law. Case analysis method is employed to study case precedents. Computer software for rapid information retrieval will be introduced. Prerequisite(s): CRJ 100 Credits: 3
(3,0)

CRJ 205 Criminal Procedure Law

Rules of evidence of particular importance at the operational level in law enforcement with emphasis on criminal procedure in areas such as arrest, force, and search and seizure. Particular emphasis will be placed on the New York State Criminal Procedure Law. The use of case tracking tools within prosecution and court units and systems; the use of case outcome analytical techniques to determine trends in practice and effectiveness. Prerequisite(s): CRJ 204 Credits: 3
(3,0)

CRJ 211 Law Enforcement Administration

Principles of organization and management in law enforcement and public safety. Analysis of the major problems in police organization and administration. Developing, maintaining and using complex and multiple information systems for crime trends as well as internal organizational operations; use of management control systems and associated computer information analysis and simulation tools for police patrol planning and evaluation. Examination of the role of technology in the police crime prevention function. Credits: 3
(3,0)

CRJ 217 Computer Forensics II

Computer Forensics II is a continuation of CRJ 115. This course covers topics such as disk geometry and organization. Master boot sector record and volume record creation and organization, file signatures for data type identification, cyclic redundancy checksum for data integrity validation, and RSA's MD5 hash values for file authentication. Other subjects introduced include the UNIX "grep" search utility, search string techniques and file signature matching, and recovery of files that are intentionally deleted, hidden, or renamed. The course examines advanced computer-based evidentiary and "discovery" data methodologies, and includes a study of evidence identification, documentation, and chain of custody procedures. Prerequisite(s): CRJ 115 Credits: 3
(3,0)

CRJ 218 Computer Forensics III

This course examines federal, state, and local computer fraud statutes to provide the student with a legal foundation to approach computer investigations. The course includes lecture elements that provide the student with the skills necessary to conduct successful computer-related investigations, and includes an examination of the processes involved in preparing an affidavit for a search warrant. Prerequisite(s): CRJ 217 Credits: 3
(3,0)

CRJ 230 Biometrics and Identity Theft

This course will introduce the history of biometrics, physiological/anatomical biometrics (fingerprint, iris, face hand geometry, DNA, ear, vascular, etc), behavioral biometrics (speech/voice, signature, gait, keyboard typing, human biosignal, etc), biometric sensor technology and anti-spoofing, and soft biometrics. Students will learn how each biometric works, and how and why different biometrics should be chosen for different applications, such as online banking, surveillance and transportation security. It also covers the security and privacy issue of biometrics. The course will provide students with an understanding of the nature and scope of Identity Theft and Computer-Related Fraud. Prerequisite(s): CRJ 115 Credits: 3
(3,0)

CRJ 300 Forensic Psychology

This course introduces the student to the study of forensic psychology, a discipline that applies psychology to the law and the criminal justice system. Topics to be covered include: the psychologist's role in the criminal courts, ethical dilemmas of psychologists working in the criminal justice system, psychological perspectives on the nature of criminality and the investigation of crime, criminal profiling, the effects of psychological empirical research on the outcome of criminal trials, and the psychology of the police, witnesses, offenders, and victims. Other new research topics in the field, such as the use of brain fingerprinting technology to determine criminal culpability will also be explored. Students completing this course cannot receive credit for PSY 300. Prerequisite(s): CRJ 100 or PSY 101 Credits: 3
(3,0)

CRJ 307 Criminal Justice Data Base Operations

The course introduces students to the meaning and structure of criminal justice data, the design of and security for criminal, legal and classified databases, the management of competing information security and confidentiality concerns, and the rights to access criminal justice records on the part of the public, corporate interests and the media. The course examines criminal justice data collection throughout the legal lifecycle (complaint, arrest, prosecution, court, corrections, probation and parole); understanding all through the prism of authenticity, value, timeliness, accountability, integration and prevention. Prerequisite(s): CRJ 115 Corequisite(s): CRJ 307L Credits: 4
(3,2)

CRJ 308 Forensic Technology

The course will introduce the student to photographic and video equipment and methods that are used for crime scene documentation and police surveillance operations, including forensic imaging analysis. The course will include a study of camera design and operation, lens selection and functions, role of light and illumination technologies, digital image editing software, and a review of the chain of custody procedures in recording and archiving images for courtroom presentation. Prerequisite(s): CRJ 201 Corequisite(s): CRJ 308L Credits: 4
(3,2)

CRJ 310 Computer Security I

This course focuses on security threats to an organization's data network such as hackers, intruders, industrial espionage and sabotage, fraud and theft. The components of computer security architecture are studied as well as the principles of security networking protocols, encryption, fault tolerance techniques, and file system protection. Additional topics covered include the protection of computer hardware and software. Prerequisite(s): CRJ 115 Credits: 3
(3,0,1)

CRJ 311 Computer Security II

This course is a continuation of CRJ 310, and includes an analysis of the security features of computer operating systems. The course will review the OSI model and describe how systems communicate with one another. Also included in the course is a detailed study of authentication technologies and how they are used to secure an organization's assets and electronic transactions. Prerequisite(s): CRJ 310 Credits: 3
(3,0,1)

CRJ 312 Computer Security III

The course examines computer software threats which include the birth, life and termination of computer viruses, their modes of operation, detection techniques, virus signatures and virus removal methods as well as other "virus like" threats which are delivered by e-mail and internet/intranet packets. Prerequisite(s): CRJ 311 Credits: 3
(3,0)

CRJ 314 Security Law and Policy

This course introduces students to the study of security law and security policies. Topics include crimes and offenses encountered by security personnel, application of criminal, civil and administrative law in the security field, employment liability, workplace violence and legal issues in security services. The course will also discuss the security policy formulation process. Students will learn how to develop security policy by incorporating federal regulatory requirements and business demands. Other topics examined are the National Information Infrastructure Protection Act, the Communications Decency Act, and the Communications Privacy Act. Prerequisite(s): CRJ 100 Credits: 3
(3,0)

CRJ 323 Network Defense

This course will discuss the security issues in computer networks and different security mechanisms to protect the secure internal networks and systems. It will involve a study of firewall technologies, including packet filtering, proxying, network address translation, and virtual private networks. An analysis of firewall architectures, such as screening routers, screened hosts, hosts, screened subnets, perimeter networks, and internal firewalls, will be included. It will also discuss the architecture, monitoring strategies, and analysis engines of an intrusion detection system. An analysis of information transformation processes for intrusion detection, such as misuse and anomaly detection, will be covered. Additional topics will include a study of technical issues in intrusion detection such as scalability, interoperability, sensor control, reliability, integration, and user interfaces. Prerequisite(s): CRJ 115 Credits: 3
(3,0,1)

CRJ 406 Crime Analysis and Mapping

Students will learn how to analysis and apply sampled data distributions to crime patterns. Digital tools will allow students to identify trends and patterns in order to determine police service allocations based on collected data The science and foundation principles of geographical information systems design and operation will be reviewed. Homeland Security implications as well as publicly available geospatial information will also be covered as specific applications for mapping techniques. Prerequisite(s): CRJ 307 Corequisite(s): CRJ 406L Credits: 4
(3,2)

CRJ 407 Crime Prevention Systems

This course will introduce the student to the theory and practice of crime prevention and examine topics such as the relationship of the built environment to crime, designing out crime, threat assessment, target hardening, and the like. The course will also focus on residential and commercial crime prevention systems. In addition, an analysis of false alarms from the perspective of the environment, end-user errors, and equipment malfunctions will be conducted. The course concludes with a review of police studies that have examined the nature and extent of the false alarm problem as well as the laws that regulate the use of crime prevention systems by public and private agencies. Prerequisite(s): CRJ 406 Corequisite(s): CRJ 407L Credits: 4
(3,2)

CRJ 410 Senior Project

Independent study of a Security Systems or related area of interest to both the student and a faculty member who shall act as project Advisor. The project selected will utilize competencies acquired in previous Security Systems and related courses. Credits: 3
(1,0,6)

CRJ 420 Physical Security I

A study of the theory and practice of managing the movement of people in organizational settings. This lecture course examines the operating principles and applications of access control readers, card encoding technologies, locking assemblies, and system functions such as fail-safe, fail-secure, access levels, time zones, limited and unlimited access privileges, and the like. Also, the course focuses on the role of alarm systems in an organization's overall protection plan, from the control of violence in the workplace to preventing theft of company property. Sensor technologies as well as controls and signaling systems are analyzed and evaluated with applications in the following areas: perimeter, interior, occupant, and object protection. Prerequisite(s): CRJ 323 Credits: 4
(4,0,1)

CRJ 421 Physical Security II

A continuation of CRJ 420. Advanced topics include a study of camera and lens types, monitors, video signaling systems, scanners, pan and tilt positioning devices, video motion detectors, camera housings and enclosures, switchers, multiplexers, time-lapse VCRs, digital video recorders, and their interactive role in the design of CCTV systems. Analysis of illumination technologies, including fluorescent, high and low pressure sodium, metal halide, ultraviolet and infrared light sources. Other topics include the application philosophy as well as the hardware and software components of video surveillance computers, and the analysis of video field and frame compositions with reference to identification issues in criminal cases. An inquiry into the legal and ethical dimensions of surveillance, including Fourth Amendment guidelines, Plain View Doctrine cases, the Expectation of Privacy court cases and directives, and the Exclusionary Rule. Prerequisite(s): CRJ 420 Credits: 3
(3,0,1)

CRJ 430 Forensic DNA Analysis

This course will introduce the student to modern molecular biological techniques that are used in a crime laboratory. The student will be taught the theory of forensic DNA testing as well as gain practical forensic field experience. The course will cover background information on body fluid identification, DNA structure and function, analytical of DNA typing. The primary focus will be the molecular biological technique known as short tandem repeats (STR) testing. Other topics covered include sample handling, DNA databanking, results reporting, criminal cases, and case preparation and courtroom presentation. Prerequisite(s): CRJ 201 Corequisite(s): CRJ 430L Credits: 3
(2,3)

CRJ 440 Bitcoin and Cryptocurrency

This course introduces the technologies associated with bitcoin and cryptocurrency, including their cryptographic building blocks and security, bitcoin's consensus mechanism, individual components of bitcoin protocol, storage and usage of bitcoin, bitcoin mining, anonymity, community, politics, and regulation, alternative mining puzzles, bitcoin as a platform, altcoins and cryptocurrency ecosystem, and the future of bitcoin. Prerequisite(s) CRJ 311 with a grade of C or higher Credits: 3
(3,0)

CRJ 490 Topics in Criminal Justice

A study of specific applications of Criminal Justice/Security Systems, with emphasis on student participation and written assignments. Critical thinking will be developed and demonstrated through understanding and interpreting the theory and practical concepts presented. Policies and advancements in the criminal justice field will be analyzed according to their advancement of knowledge and tactics used in various types of investigations and analyses. Prerequisite(s): Contingent on selected topic Credits: 3
(3,0)

DENTAL HYGIENE

DEN 015 Skills Refresher Course

This course is designed to assist students in maintaining their clinical skills following a break in their clinical sequence. Demonstration of clinical competency prior to re-entering the clinical sequence is necessary to ensure proper patient treatment. Additionally students who have not acquired sufficient clinical skills in their clinical course work will have the opportunity to remediate in this course. Credits: 2
(2 to 5,0)

DEN 102 Dental Materials and Expanded Functions

This course is concerned with the study of dental materials that are employed in dentistry for the fabrication of dental appliances and tooth restorations. It will provide the student with a basic understanding of the various procedures, materials, and devices commonly used in dental practice. Emphasis will be placed on the physical and chemical properties of dental materials and how these properties affect the care and manipulation of the materials. Basic laboratory techniques, as well as expanded functions, will be performed in the lab. Spring. Prerequisite(s): DEN 105 Corequisite(s): DEN 102L   Credits: 3
(2,2)

DEN 105 Dental and Oral Anatomy

The study of the anatomy of the oral, facial complex and the morphology of the dentitions. Emphasis is placed on technical dental terminology as well as occlusion. This course includes a co-requisite laboratory designed to provide experience in mastering tooth morphology and occlusion. Prerequisite(s): Admission to the Dental Hygiene Program. EGL 101, CHM 124 (or High School Chemistry/Lab) and BIO 166, all with a minimum grade of C Corequisite(s): DEN 105L Credits: 3
(2,3)

DEN 106 Oral Radiology I

This course acquaints the student with the nature of ionizing radiation, the history of x-rays, and their production and properties. The theory and practice of exposing, processing, mounting, and analyzing dental radiographs and digital images are covered as well as radiation dosage, radiation hazards, and protective devices for patient and operator. Emphasis is placed on the identification of anatomic landmarks and the differentiation of these from conditions which indicate abnormality or disease. This course includes a co-requisite laboratory which includes two hours per week of laboratory activity. Prerequisite(s): DEN 105, with a minimum grade of C or higher. Corequisite(s): DEN 106L Credits: 3
(2,2)

DEN 108 Oral Histology and Embryology

This course reviews basic histological tissues. Microscopic structures of the oral tissues are studied and include the hard palate, soft palate, tongue, lips, salivary glands and tonsils. Emphasis is on the development of the face, the oral cavity and, in specific, the tooth and its surrounding tissues. Spring. Prerequisite(s): DEN 105   Credits: 2
(2,0)

DEN 110 Preventive Oral Health Concepts I

This course is an introduction to the study of Dental Hygiene. It includes an overview of the dental hygiene profession to include current and future roles of the dental hygienist. Special emphasis is placed on the hygienist as periodontal co-therapist, the responsibility of the dental hygienist to the profession and the development and strengthening of values that pertain to the profession of dental hygiene. Other topics to be covered include: principles of instrument design and use; disease transmission control; etiology and role of dental biofilm and calculus; importance of medical histories; measuring and recording of vital signs; office emergencies and planning implications for the medically compromised patient. Fall. Corequisite(s): DEN 105, 105L, 115
Credits: 2
(2,0)

DEN 115 Clinical Dental Hygiene I

This is a clinical course in the practical application of dental hygiene techniques with supplemental discussions related to the clinical practice of the dental hygienist. Emphasis is placed on proper patient and operator positioning, use of dental equipment, maintenance of an aseptic environment, intra and extra oral exams, measuring and recording of vital signs, instrumentation principles and techniques, recognizing and removing hard and soft deposits. Polishing and sharpening of instruments along with techniques and theory are included. Fall. Corequisite(s): DEN 105, 105L and 110   Credits: 3
(1,0,8)

DEN 126 Periodontology

A basic understanding of the principles and concepts associated with periodontology, including a detailed study of the periodontal tissues in both health and disease. Special emphasis is placed on the role of the dental hygienist as a periodontal co-therapist in the development of skills necessary to provide initial non-surgical and supportive periodontal therapy within the framework of a comprehensive dental hygiene care plan. Spring. Prerequisite(s): DEN 105,110, 115 and BIO 220   Credits: 2
(2,0)

DEN 201 Pain Management

This course is designed to provide an in depth study of anesthesia and pain control as it is used in Dentistry. The mechanism of actions of anesthetic agents as well as other methods of pain control will be studied, demonstrated, and practiced. This course has a co-requisite laboratory that allows students the opportunity to practice the administration of local anesthesia. Prerequisite(s): DEN 102, 105, 106, 120, 126, 220 and 225 all with a grade of C or higher Credits: 2
(1,2)

DEN 203 Principles of Nutrition for Oral Health Professionals

This course is designed to educate the dental hygiene student in basic principles of nutrition, metabolism and digestion. There is an emphasis on the biochemical function of carbohydrates, protein, lipids, vitamins, and minerals as they relate to health and wellness, nutrition and disease, energy balance, eating disorders, and the oral manifestations of nutritional deficiency. Nutrition labeling, nutrition guidelines and dietary analysis of a client's diet and review of pertinent nutrition literature is essential to the dental hygiene process of care and therefore, is an important component to the scope of this course's requirements. Fall. Prerequisite(s): CHM 124 (or High School Chemistry/Lab)   Credits: 2
(2,0)

DEN 205 Oral Pathology

The study of the fundamentals of microscopic and gross pathology. Discussion of general pathologic processes with emphasis on pathology of the oral, dental, and periodontal tissues and their etiology and prevention. Fall. Prerequisite(s): BIO 166 Minimum Grade: C and BIO 220 Minimum Grade: C and DEN 220 and 225   Credits: 3
(3,0)

DEN 207 Oral Radiology II

Laboratory activities and experiences are designed to provide students with further practice in developing skills with intra-oral radiographic techniques. In addition, students will learn supplemental techniques that are not limited to, but include occlusal, extra-oral, digital, panoramic and specialized patients. Interpretations of radiographs will be emphasized, with integration of the role radiographs play in the dental hygiene diagnosis and treatment planning. Fall. Prerequisite(s): DEN 106   Credits: 1
(0,2)

DEN 212 Pharmacology

This course is designed to educate the dental hygiene student in the principles of pharmacology as they pertain to dentistry. In particular, the student will be taught the basics of organic compound structure, classification and nomenclature by the IUPAC system. The course will cover prescription writing, drug uptake, synthesis and elimination by the body, and the Krebs Cycle. Drugs studied will include, opioids, non-opioids, anti-infective agents, local and general anesthetics, anti-anxiety and psychotherapeutic agents, autonomic drugs, cardiovascular drugs, corticosteroids, hormones, histamines and fluoride. Students will learn how to think critically about a patient's health history and how the patient's medications may affect or be affected by dental office procedures. Prerequisite(s): CHM 124 (or High School Chemistry/Lab), BIO 166, 220 and DEN 220, 225 Credits: 2
(2,0)

DEN 220 Preventive Oral Health Concepts II

This course is a continuation of the study of Dental Hygiene. This course includes a detailed study of such preventive dental hygiene techniques as fluorides, nutritional counseling, patient motivation and management, oral physiotherapy techniques. Also covered are discussions on dental hygiene care planning, dental biofilm, calculus, caries, dental products, desensitization, periodontal and restorative charting. A research paper on an aspect of preventive dentistry will be expected from each student. Spring Prerequisite(s): DEN 105, DEN 110, DEN 115 Corequisite(s): DEN 225 Credits: 2
(2,0)

DEN 221 Community Oral Health I

This course is an introduction to the concepts and core principles of community oral health and provides the student with an orientation to the role of the dental hygienist as educator, resource person and consumer advocate in the field of dental public health. An introduction to epidemiology and research principles will promote a better understanding of scientific literature. In addition, the student will develop the skills necessary to assess various target populations and select educational strategies that will effectively provide culturally appropriate oral health education programs. Fall Prerequisite(s): DEN 110 and 115 Credits: 2
(2,0)

DEN 222 Community Oral Health II

This course is a continuation of the study of Community Oral Health I. Public health concepts, theories and their application at the federal, state and local levels will be explored. In addition, students will develop the skills necessary to complete a community oral health needs assessment. Participation in public health education projects is required. Spring Prerequisite(s): DEN 221W Credits: 2
(2,0)

DEN 225 Clinical Dental Hygiene II

A continuation of the practical applications of dental hygiene techniques with supplemental lectures and discussions related to the clinical practice of the dental hygienist. Spring Prerequisite(s): DEN 105, DEN 110, DEN 115 Corequisite(s): DEN 220 Credits: 3
(1,0,8)

DEN 230 Preventive Oral Health Concepts III

This course is a continuation of the development, assessment and evaluation of dental hygiene practice and knowledge through a variety of classroom techniques. Values' clarification, new advancements/ technology, and current preventive methods will be discussed. Preventive oral health techniques and treatment care in association with special needs patients will be emphasized. It is intended that the student will utilize this information to assist him or her clinically to develop a patient specific protocol and comprehensive treatment plan for the child, adolescent, adult, geriatric and medically compromised patient. Fall Prerequisite(s): DEN 220, 225 and BIO 220 Corequisite(s): DEN 235 Credits: 2
(2,0)

DEN 235 Clinical Dental Hygiene III

A continuation of the development of and application of dental hygiene skills and knowledge through clinical practice in hospitals and clinics both on and off campus. Clinical participation with new innovations, and current preventive techniques in the practice of dental hygiene and application of the expanded roles of the dental hygienist will be emphasized. Fall Prerequisite(s): DEN 220, 225 and BIO 220 Corequisite(s): DEN 230 Credits: 4
(1,0,12)

DEN 240 Dental Practice Management, Ethics and Jurisprudence

Through a variety of classroom techniques, the development assessment and evaluation of dental hygiene practice will be continued. Lectures and discussions will focus on current issues in dental hygiene including ethics, jurisprudence, dental law, practice management and alternative practice settings. Presentations will be held on resume writing and role playing for job interviewing. Spring Prerequisite(s): DEN 230, 235 and BIO 220 Corequisite(s): DEN 245 Credits: 2
(2,0)

DEN 245 Clinical Dental Hygiene IV

A continuation of the development of and application of dental hygiene skills and knowledge through clinical practice in hospitals and clinics both on and off campus. Clinical participation with new innovations and current preventive techniques in the practice of dental hygiene and application of the expanded roles of the dental hygienist will be emphasized as well as dental practice management concepts. Spring Prerequisite(s): DEN 201, 230, 235 and BIO 220 Corequisite(s): DEN 240 Credits: 5
(1,0,16)

DEN 301W Current Issues in Dental Hygiene (Writing Intensive)

This course is designed to provide an overview of the current issues facing oral health care professionals as they approach the new millennium. The course will cover topics ranging from the changing role of the dental hygienist and the policies needed to support the American Dental Hygienists' Association's strategic goals, to information on trends in population demographics, self regulation/independent practice for the registered hygienist, along with government and managed care's alliance with political, economic, technological influences and its effect on the profession of dental hygiene. The course will also review the professional code of ethics and standards for dental hygienists along with gender as an issue. This is a writing intensive course. Fall Note: DEN 301W can be used to fulfill the writing intensive requirement. Prerequisite(s): Associate degree in Dental Hygiene and EGL 101 with a C or higher Credits: 2
(2,0)

DEN 302 Principles of Dental Anesthesia

This course is designed to provide an in depth study of anesthesia and pain management through the use of local anesthetic agents and the administration of nitrous oxide and oxygen sedation. The mechanism of actions of anesthetic agents as well as indications and contraindications for use, and the treatment of complications and emergencies are stressed. Other methods of pain control will be discussed through research and presentations. This course meets the New York State Education's Department's requirements for certification in the administration and monitoring of local infiltration anesthesia and nitrous oxide analgesia in the practice of dental hygiene. This course has a co-requisite laboratory that allows students the opportunity to practice efficient techniques of pain management through local anesthesia on clinical partners under the direct supervision of clinical faculty. Prerequisite(s): DEN 102, DEN 105, DEN 106, DEN 126, DEN 212, DEN 220, and DEN 225 with a grade of C or higher. Corequisite(s): DEN 302L Credits: 2
(1,3)

DEN 303 Practice Management for Quality Assurance

This course will involve students with concerns related to practice management. Emphasis will be placed on assuring quality care while focusing on the principles and concepts of a client-centered practice environment in our evolving health delivery system. Economics for the practice, office management, comprehensive care plans, and the use of new technology will be explored to support the practice goals. Fall Prerequisite(s): Associate Degree in Dental Hygiene   Credits: 3
(2,2)

DEN 309 Oral Epidemiology in Public Health

Oral epidemiology in public health will explore the distribution and determinants of oral health-related conditions such as dental caries, periodontal disease, and oral cancer in specified populations. An in depth view on the uses of epidemiology, as it relates to the health of the public, will enable the student to document oral health needs, evaluate existing oral health programs and interventions. Students will be introduced to the role of oral epidemiology in controlling oral health problems in the community. Fall. Prerequisite(s): Associate Degree in Dental Hygiene.   Credits: 3
(3,0)

DEN 310 Teaching Strategies for Health Care Educators

The Principles of education, teaching, methodology, and instructional design utilized by health care educators in schools, community outreach, hospitals, other skilled nursing facilities, and/or higher education institutions are covered in this course. Topics include performance objectives, competencies, lesson planning, syllabi construction, analysis, and formative evaluation of instruction; traditional and non-traditional teaching methodologies; academic course development; current issues in dental health and dental hygiene education. Spring Prerequisite(s): DEN 220 and DEN 322 or Associate Degree in Dental Hygiene.   Credits: 3
(3,0)

DEN 322 Dental Public Health Planning

This course will provide the students with the concepts of dental public health. These principles include health literacy, oral epidemiology, and methods used to measure dental disease in a given population. Emphasis will be placed on the process of program assessment, planning, implementation, and evaluation to design an intervention program to improve oral health in the community. Evidence-based prevention and research principles will be explored. In addition, students will be involved in statistical analyses that will prepare them to become patient advocates and resource persons in the dental public health setting. Prerequisite(s): DEN 220 with a grade of C or higher. Credits: 3
(3,0)

DEN 330 Essentials of Clinical Practice Theory

This course is designed to increase the knowledge of dental hygiene practice. It is a continuation of the development, and assessment of the dental hygiene process of care. This course combines the integration of theory with clinical experience in a variety of oral hygiene preventive and therapeutic procedures. New advancements in patient care as well as the introduction of new technology and current preventive methods will be analyzed and discussed. Students will apply the knowledge gained and utilize the information to develop patient specific protocols and comprehensive treatment plans in the provision of care for the child, adolescent, adult, geriatric and special needs patient. Prerequisite(s): DEN 220, DEN 225 BIO 220T with a grade of C or higher Corequisite(s): DEN 335 Credits: 2
(2,0)

DEN 335 Essentials of Clinical Practice I

This clinical course is designed to build on the foundational knowledge of dental hygiene care. There is a concentration on the development of clinical skills through the application and delivery of oral health services. A case based approach is implemented, with emphasis on dental hygiene concepts, to foster critical thinking and problem solving abilities. Clinical experiences focus on advanced instrumentation techniques and innovative advancements that include diagnostic, therapeutic and treatment technologies. Prerequisite(s): DEN 126, DEN 220, DEN 225 and BIO 220 with a grade of C or higher. Corequisite(s): DEN 330 Credits: 2
(0,0,6)

DEN 340 Dental Hygiene Law & Practice Management

This course will focus on the professional responsibility of dental hygienists. Emphasis will be placed on dental law, the professional code of ethics, core values, and standards. Situations focusing on integrity and ethical decision making will be highlighted. Additionally, topics ranging from non-traditional career paths, the changing role of the dental hygienist in alternative practice opportunities including self-regulation and independent practice will be reviewed. Relevant aspects of the political and economic influences of managed care and its impact on the profession of dental hygiene will be discussed. Prerequisite(s): DEN 302, DEN 330, DEN 335, and BIO 220 with a grade of C or higher. Corequisite(s): DEN 345 Credits: 2
(2,0)

DEN 345 Essentials of Clin Practice II

This course is a continuation of the development and application of dental hygiene skills and knowledge through clinical practice in hospitals and clinics both on and off campus. Clinical participation with new innovations and current preventive techniques in the practice of dental hygiene and application of the expanded roles of the dental hygienist will be emphasized. Prerequisite(s): DEN 302, DEN 330, DEN 335, BIO 22O all with a grade of C or higher. Credits: 3
(0,0,9)

DEN 401W Health Science Research: Principles and Methods (Writing Intensive)

A profession seeking to enhance its professional stature strives for the continual development of a scientific body of knowledge fundamental to its practice. Dental hygiene research involves a systematic search for knowledge about issues of importance to the dental hygiene profession. This course is designed to develop skills in scientific research. Emphasis is placed on the research process which includes problem identification, hypothesis writing, research design data collection, and data analysis and data interpretation. This is a writing-intensive course. Fall Note: DEN 401W can be used to fulfill the writing intensive requirement. Prerequisite(s): Associate Degree in Dental Hygiene and MTH 110 or EGL101 with a C or higher and DEN 220 and DEN 322 Credits: 3
(3,0)

DEN 402 Gerontology

Gerontology is the study of aging. This course is designed to promote an understanding of the social, psychological, and biological aspects of the aging process and the relationship to health. The course will examine current theories of aging, demographic profiles of the older adult population, and the increased incidence of oral health problems as we age. Close examination of the aging process will enable the student to gain insight into the fastest growing portion of our population and recognize the needs of the elderly and the concerns of the 77 million baby boomers coming of age. Spring Prerequisite(s): Associate Degree in Dental Hygiene or DEN 220, DEN 322 and DEN 330. Credits: 3
(3,0)

DEN 406W Proposals and Grant Management for Health Programs (Writing Intensive)

This course will introduce the student to the fundamentals of proposal writing and researching grant funding sources. Students will demonstrate the preparation of supporting documentation of need, implementation, evaluation, and budgeting. The culminating project of the course will be assembling the segments of a program proposal or grant application into a final document that is worthy of submission. This is a writing-intensive course. Spring Note: DEN 406W can be used to fulfill the writing intensive requirement. Prerequisite(s): Associate Degree in Dental Hygiene and EGL 101 with a C or higher and DEN 309
Credits: 3
(3,0)

DEN 407 Dental Hygiene Practicum Seminar

This course is designed as a pre-requisite to DEN 409 Dental Hygiene Practicum. Students will have the opportunity to research and explore areas of special interest for their field placement practicum experience. Fall Prerequisite(s): Associate Degree in Dental Hygiene. Completion of at least 4 of the core DEN courses, or permission of the Department. Credits: 1
(1,0)

DEN 409 Dental Hygiene Practicum

This course provides a foundational experience and will involve students in a 40-hour self-directed practicum that is multidimensional in its scope. The specialized areas of interest are expanded to include, but are not limited to, education, research, corporate/business, health care delivery systems, and specialized practice interests. Spring. Prerequisite(s): Associate Degree in Dental Hygiene and DEN 407, with a minimum grade of C or higher.   Credits: 3
(3,0)

DEN 410 Dental Hygiene Study Abroad

Bachelor degree Dental Hygiene students are afforded the opportunity to expand their international perspective of the profession. The course explores the health care delivery system and practices of dental hygiene. Students will experience the role of the Dental Hygienist in various practice settings, develop a deeper understanding of the profession, participate in research investigations and explore areas of interest. Prerequisite(s): Associate Degree in Dental Hygiene, Permission of the Department. Credits: 4
(2,10)

DEN 430 Senior Seminar I

This course will enable students to explore the role of the dental hygienist in a multidisciplinary setting while examining the principles of leadership and professional development. The course will provide information on leadership styles, qualities, traits, and virtues, mentoring, advocacy, self-reflection, and team approach healthcare. In addition, the students will identify their leadership strengths and behavioral profile. The course will encourage students to consider opportunities for professional development and team based collaborative healthcare relative to dental hygiene. Prerequisite(s): DEN 340 and DEN 345 with a grade of C or higher. Corequisite(s): DEN 435 Credit: 1
(1,0)

DEN 435 Advanced Dental Hygiene Practice I

This course will provide students the opportunity to advance their instrumentation and patient management skills through the participation in a dental hygiene residency program at various health care settings. Additionally, this course will emphasize the treatment of the periodontally involved patient including assessment, treatment planning, implementation of care and maintenance. Students will apply the concepts of peer evaluation and interprofessional education to prepare them for the demands of treating the more complicated patient in today's healthcare environment. Time management skills will be enhanced in order to prepare students for demanding patient schedules in the workplace. Prerequisite(s): DEN 340 and DEN 345 with a grade of C or higher. Corequisite(s): DEN 430 Credits: 4
(0,0,12)

DEN 440 Senior Seminar II

This course will allow students to master the concepts of dental hygiene production in a dental healthcare setting. Students will investigate alternative practice settings and the emerging roles of the dental hygienist. Additionally, students will examine the role of financial planning, maximizing resources and career management, in order to gain the necessary skills for a successful dental healthcare practice. Prerequisite(s): DEN 430 and DEN 435 with a grade of C or higher. Corequisite(s): DEN 445 Credit: 1
(1,0)

DEN 445 Advanced Dental Hygiene Practice II

This course is a continuation of Advanced Dental Hygiene Practice I. This capstone course will require students to present case studies utilizing advanced dental hygiene practice skills. Additionally, students will spend time in a healthcare facility dental hygiene residency program. Students will also provide care to patients in the Dental Hygiene Care Center at Gleeson Hall. Prerequisite(s): DEN 430 and DEN 435 with a grade of C or higher. Corequisite(s): DEN 440 Credits: 4
(0,0,12)

ECONOMICS

ECO 110 Introduction to Personal Finance

Students will learn how to navigate the financial decisions they must face and how to make informed decisions related to budgeting, banking, credit, insurance, spending, taxes, saving, investing, inheritance, and living independently. The course will develop financial literacy skills, an understanding of economic principles, and will provide a basis for responsible citizenship and career success. Credits: 3
(3,0)

ECO 120 The Global Economy

This course provides an overview of current global economic issues. Basic economic concepts are introduced in order to explain differences in the level of development among countries, the direction of trade, the causes and effects of international financial crises, and the motivations of some countries to transition to a market economy. The course also discusses the way in which countries coordinate efforts to deal with matters of international concern such as pollution and global warming. Topics also include the role of international institutions including the World Bank, the international Monetary Fund, the World Trade Organization, and the United Nations. Credits: 3
(3,0)

ECO 156 Principles of Economics (Macroeconomics)

This course is designed to introduce classic macroeconomic issues such as unemployment, inflation, national income and economic growth. The course will provide a unified framework to address these issues and to study the impact of different policies, such as monetary and fiscal policies, on the aggregate behavior of the economy. Analytical tools will be used to understand the experiences of the United States and other countries, and to address how current policy initiatives affect their macroeconomic performance. Credits: 3
(3,0)

ECO 157 Principles of Economics (Microeconomics)

This course introduces students to fundamental economic concepts and theory, including demand, supply, and the formation of equilibrium prices in product and resource markets. Students will learn a specific set of analytical tools as well as how to apply them to current policy issues. In addition, the course offers an introduction to applied fields such as industrial organization (market structures), labor economics, international trade, and market failure. Credits: 3
(3,0)

ECO 205 Introduction to Social Science Modeling

This course introduces students to the technique of social science modeling by learning and applying a variety of different models of individual and social behavior. It will use basic concepts in probability and simple economic models (including, but not limited to, supply and demand, two-person prisoners' dilemma, and indifference curves) to understand issues such as competition, purchasing/investment decisions, risk-taking and risk-avoiding behavior, diversity, and collective action. This course is designed for all students interested in getting a deeper exposure to economics than is available at the 100 level, and economics majors preparing to take more advanced classes in economics. Prerequisite(s): ECO 156 or ECO 157 Credits: 3
(3,0)

ECO 250 Quantitative Analysis for Economics

This course introduces students to basic mathematical techniques used in economic analysis. It applies differential calculus and linear algebra to economic analysis. Topics include: functions, equations in economics, constrained optimization, partial differentiation, and linear algebra. Prerequisite(s): ECO 156 or ECO 157 and (MTH 117 or MTH 129) Corequisite(s): MTH 117 or MTH 129 (to be taken before ECO 250 or simultaneously) Credits: 3
(3,0)

ECO 255 Money and Banking

A description of American central banking, the structure and development of commercial banks and non-bank financial intermediaries, the nation's money and capital markets, bank regulation and supervision, monetary theory and its policy implications, and the operation of the system in international payments. Prerequisite(s): ECO 156 Credits: 3
(3,0)

ECO 259 Contemporary Economic Issues and Problems

Explores and analyzes the problems and issues of inflation, unemployment, and the necessity of urban renewal, the growth of corporate conglomerates, and the social and political ramifications in the world's money markets, together with the reasons giving rise to these occurrences. Prerequisite(s): ECO 156 Credits: 3
(3,0)

ECO 260 Intermediate Microeconomics

This course provides students with a critical examination and introduction to the analysis of markets, demand theory, production, theory of the firm, market structure, general equilibrium and welfare analysis, and introductory game theory. The course introduces students to introductory modeling and mathematical methods used in microeconomics to model and estimate demand relationships, production functions, market behavior, and risk and uncertainty. Prerequisite(s): ECO 157 and (MTH 117 or 129) Credits: 3
(3,0)

ECO 262 Managerial Economics

This course introduces students to the use of economic methods for managerial decision-making. The focus of the course is on the practical application of economic techniques to business problems, including: the theory of the firm, demand estimation, production functions, cost estimation, market structure, pricing strategy, and game theory. Note: Students completing this course may not receive credit for ECO 260 Prerequisite(s): ECO 157 and (MTH 117 or 129) Credits: 3
(3,0)

ECO 270 Intermediate Macroeconomics

Study of aggregate economic analysis. With attention to the determination of the level of income, employment, and inflation (IS-LM); Fiscal and monetary stabilization policies critically examines both theories, and the policies associate with them; the macroeconomic implications of fixed and flexible exchange rates in the presence of international capital mobility supply-sided economics. Prerequisite(s): ECO 156 and (MTH 117 or MTH 129) Credits: 3
(3,0)

ECO 303 Arts and Entertainment Economics

An analysis and in-depth study of the economics and economic impact of the arts and entertainment activities. Topics include arts demand and supply, live performing and cultural arts, profit and non-profit entertainment industries, music and film industry (recorded arts) arts venues, museums, and performing arts centers and economic models of nonprofit cultural organizations. Prerequisite(s): ECO 156 and ECO 157 Credits: 3
(3,0)

ECO 304 Sports Economics

An analysis and in-depth study of the economics and economic impact of professional and amateur sports. Topics include team and league structures, labor relations, stadium financing, consumer demand for sports, and the role and impact of public and private subsidies. The student should be able to: identify and explain the economic principles and problems associated with sports team ownership, stadium economics, as well as the impact and effects of radio and television broadcast rights on sports economics. Prerequisite(s): ECO 156 or ECO 157 Credits: 3
(3,0)

ECO 310 Health Economics and Policy

The aim of this course is to introduce students to the application of economic thinking to the analysis of health policy and health systems. Specifically, we will survey the organization, financing and delivery of health services, the economic evaluation of alternative methods of providing health care, priority setting and resource allocation and the health behaviors of individuals. Prerequisite(s): ECO 156 or ECO 157 and junior level status Credits: 3
(3,0)

ECO 312 Economics of Non-Profit Organizations

This course provides an overview of the regulatory and legal constraints that nonprofit organizations face in the global economy. Students will analyze the strategies nonprofits use in adapting to fluctuating economic and political circumstances. The course will focus on the development of national, international, and transnational nonprofit organizations and the challenges embedded in the regions and industries in which they operate.   Prerequisite(s): ECO 156 or ECO 157 and junior level status Credits: 3
(3,0)

ECO 320 Internet and Network Economics

A study of the economic structure and growth of the modern economy focusing on the effect and impact of emerging technologies on industry, employment, financial markets and market structure. Prerequisite(s): ECO 156 or ECO 157 Credits: 3
(3,0)

ECO 321 Engineering Economics

This course will provide students with a basic understanding of the economic aspects of engineering in terms of the evaluation of engineering proposals with respect to their worth and cost. Topics include: introduction to Engineering Economics; interest and interest formulas; equivalence and equivalence calculations; evaluation of replacement alternatives and operational activities; basic fundamentals of cost accounting. Prerequisite(s): Admission to a Tech Program or approval of this Department chair. Credits: 3
(3,0)

ECO 330 Modern Economic Thought

The purpose of this course is to study the most important economic theories of the recent past in order to gain a better understanding, not only of these earlier economic theories, but also of the nature of economic theory in general and of the strengths and weaknesses of modern micro and macro-economics and policymaking. We will study the major schools of Modern Economic Thought -Neo-Classical, Austrian, Keynesian, Monetarist, etc. We will examine these theories to trace the long term thought on economic problems like value theory, money and inflation, free trade, macro- economics stability, etc. Prerequisite(s): ECO 156 and ECO 157 Credits: 3
(3,0)

ECO 340 International Trade

First of a two semester offering to provide a comprehensive exposition of the theory and principles of international trade, the importance of international trade in interdependent economics, and a knowledge of international trade institutions and how they relate to U.S. commercial policy. The material will employ an analytical as well as historical and institutional approach. Prerequisite(s): ECO 156 or ECO 157 Credits: 3
(3,0)

ECO 341 International Finance

Second half of a two semester offering to provide theoretical and practical knowledge of international finance, its relationships to financial markets, and the international monetary system as it relates to the U.S. economy. The course work will focus on balance of payments, foreign exchange markets and the international monetary system. Prerequisite(s): ECO 156 or ECO 157 Credits: 3
(3,0)

ECO 342 Financial Economics

This course introduces students to the basic mathematical models, techniques and forms of analysis used in financial economic analysis. Topics covered include uncertainty and financial decision-making, mean-variance model of portfolio selection, Black-Scholes option pricing formula, utility functions, computational techniques and stochastic volatility. Prerequisite(s): ECO 156 or ECO 157 Credits: 3
(3,0)

ECO 350 Economics of Global Disasters

This course focuses on the inter-relationship between natural and manmade hazards and disasters and the economy. Disasters within the economic and sociology literature arise when an event impacts the physical, social and economic infrastructure beyond its normal absorptive capacity. Topics covered and examined include natural hazards and their effects on regional development, manmade disasters, methods of hazard analysis, impact estimation techniques, and disaster planning and mitigation, public policy and issues. Prerequisite(s): ECO 156 and ECO 157 Credits: 3
(3,0)

ECO 358 Economics of Labor

Economics of Labor explores how individuals enhance their economic well-being through their work behavior and examines the role of labor markets in explaining disparities of wealth. Topics include the static labor market and its internal structure, the composition of the labor force, the nature of a job search, the life cycle human capital model, determination and classification of wages and wage structure, the American labor movement and the role of labor unions. Prerequisite(s): ECO 156 or ECO 157 Credits: 3
(3,0)

ECO 360 Introduction to Experimental Economics

This course will introduce students to the intersection of two research programs: behavioral economics and analytic game theory. Students will leave this class able to make predictions using game theory and will understand how bounded rationality affects those predictions. Prerequisite(s): ECO 156 or ECO 157 Credits: 3
(3,0)

ECO 372 Eco of Games & Strat w Bus App

This course is an overview of strategic interaction presented in the context of game theory. The course will prepare students for analyzing and solving problems where the outcome of an interaction depends directly on the decisions of all the individuals involved. After developing the analytical tools required to understand strategic interactions, students will apply these tools to problems in business management related to marketing, managerial decision-making, business law, pricing strategy, and the dynamics of competition. Prerequisite(s): ECO 157 and (MTH 116 or MTH 117 or MTH 129 or ECO 250) and junior level status Credits: 3
(3,0)

ECO 380 Econometrics

Students will learn and apply statistical methods used in empirical economic analysis. The course will cover the following topics: the fundamentals of probability and statistics, hypothesis testing, multivariate linear regression using Ordinary Least Squares (OLS), the statistical properties of OLS under less than ideal circumstances, the use of dummy variables, and specification analysis. Prerequisite(s): MTH 110 and (MTH 117 or MTH 129) and (ECO 156 or ECO 157) and Junior level status. Credits: 3
(3,0)

ECO 390 Special Topics in Economics

This course enables students to explore a range of diverse topical and current issues in economics and will require extensive readings, analysis, and written work. Students should consult with the department prior to registering for this course. Prerequisite(s): ECO 156 or ECO 157
Credits: 3
(3,0)

ECO 401 Industrial Organization

This course teaches students how to apply industrial organization theory to data. The course will cover strategic models of firm competition and analyze industrial policy issues. Students will gain a deeper understanding of the microeconomic and game theoretic frameworks necessary to study simplified models in industrial organization. Students will analyze topics including monopoly, oligopoly, cartels and collusion, market structure, price discrimination, product differentiation, technological change, advertising, and auction mechanisms. Prerequisite(s): ECO 250 and (ECO 260 or ECO 262) and Senior Level status Credits: 3
(3,0)

ECO 410 Public Finance

This course introduces students to the issues, interactions and inter-relationships arising between the market and government policy-making. Topics covered include: tools of public finance, budget analysis, externalities, political economy, cost-benefit analysis, taxation and policy, social insurance, income distribution and welfare. Prerequisite(s): (ECO 260 or ECO 262) and (ECO 255 or ECO 270)
Credits: 3
(3,0)

ECO 412 Cost-Benefit Analysis

This course will focus on the principles of applied economic and welfare analysis. The basic theory of cost-benefit analysis is presented and its relevance for social policy analysis is established. Applications of cost-benefit analysis are examined in the light of management decision making, theoretical grounding in finance, accounting, marketing, investment and planning. The applications of cost-benefit analysis in the health care, non-profit, entertainment, transportation and information technology sectors are also examined. Prerequisite(s): (ECO 260 or 262) and (ECO 255 or 270) Credits: 3
(3,0)

ECO 420 Economics of Science and Technology

This course is an examination of technology based growth and development both in historical and current contexts. Topics include technology-based economic development, the role of human capital, technology transfer, intellectual property rights and patents, and network economics. Prerequisite(s): (ECO 260 or ECO 262) and (ECO 255 or ECO 270) Credits: 3
(3,0)

ECO 430 Urban and Regional Economics

This course will focus on the economics of cities and regions as well as the challenges faced by economic agents in urban areas. Students will gain an understanding of the economic forces that lead to the development of cities and their cohesion within regional economies. The course will enrich the typical spaceless economic analysis by introducing a spatial dimension. Students will focus on analyzing and prescribing policy to address the challenges of crime, transportation, firm location, housing, education, and local government in the local and regional economies. Prerequisite(s): (ECO 260 or 262) and (ECO 255 or 270) Credits: 3
(3,0)

ECO 435 Environmental Economics and Policy

This course provides a survey of the fundamental concepts underlying economic approaches to environmental policy, illustrates applications of these concepts in the real world and offers students the opportunity to apply their new knowledge toward understanding a current environmental problem. Prerequisite(s): (ECO 260 or ECO 262) and (ECO 255 or ECO 270) Credits: 3
(3,0)

ECO 440 Topics in Applied Economics

A treatment of diverse topics chosen by the department for their importance in current economics. The course will require extensive reading, analysis and written work depending on the topic. Students should check with the department before registering for this course regarding anticipated topics for the semester. Prerequisite(s): (ECO 260 or ECO 262) and (ECO 255 or ECO 270) Credits: 3
(3,0)

ECO 441 Economics of Gender

In this class economics theory and analysis will be used to address questions on gender differences in education, career choices, household decisions, and earnings. Models of labor supply and demand, allocation of resources within household, human capital, earning equation, and discrimination will be introduced and data will be examined to test these economic theories. Gender-related policy issues and applications will also be discussed. Prerequisite(s): (ECO 260 or ECO 262) and (ECO 255 or ECO 270) Credits: 3
(3,0)

ECO 450 International Development Economics

This course will introduce some of the fundamental questions and issues surrounding the development process including topics such as: economic structure, economic growth models dual sector models, export led growth, as well as a range of applied and historical examples including an overview of African, Asian, and Latin American development experiences, and current issues in economic development. Prerequisite(s): ECO 255, ECO 260, ECO 262 or ECO 270
Credits: 3
(3,0)

ECO 480 Forecasting

This course the methodology and applications of econometric forecasting and time series analysis. Topics include linear regression model, stationarity, modeling seasonality, arima models, and volatility. Prerequisite(s): (ECO 380 and 260) or (ECO 262 and 255 or ECO 270)
Credits: 3
(3,0)

ECO 489 Economic Internship

Advanced third and fourth year applied economics students will be placed in a public or private sector setting in which the student will be able to gain work experience in applied economics analysis. A written report on the internship experience is required of the student at the conclusion of the internship. Students may not repeat this course for credit. Prerequisite(s): (ECO 262 and ECO 260) or (ECO 250) and (255 or ECO 270) Credits: 3
(1,0,6 to 33)

ECO 490W Economic Research and Reporting (Writing Intensive)

This course introduces students to the methods and techniques of economic analysis, data and statistical analysis, interpretation of results, documentation, article preparation, and the report presentation. This is a writing-intensive course. Note: Students cannot get credit for ECO 490 and 490W; ECO 490W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the Economics Department Prerequisite(s): ECO 260 or ECO 262 and (ECO 270 or ECO 255) and ECO 250 and ECO 380 and EGL 101 with a grade of C or higher Credits: 3
(3,0)

ECO 491 Applied Economic Analysis

This course is a follow-up to the economic research and reporting course. Its goal is to prepare the student to conduct independent research in consultation with their advisor, students will develop a senior project in an area of current economic interest. They will participate in seminar and present their research, culminating in a completed report and presentation on their research topic. Prerequisite(s): ECO 490 or 490W Credits: 3
(3,0)

ELECTRICAL ENGINEERING TECHNOLOGY

EET 104 DC/AC Circuits

An introductory course to the fundamentals and basic principles of DC and AC circuits. Topics covered include: The definition of current, voltage and passive circuit elements such as, resistors, capacitors, and inductors, through their I-V characteristic relationships. Ohm's Law Power, Kirchoff's Current and Voltage Laws, Voltage and Current Divider Rules, and their basic applications in the analysis of series, parallel and series-parallel circuits. The fundamental Network Theorems, Superposition, Thevenin's and Norton's equivalent circuits and Maximum Power Transfer. AS signal waveforms and their Average and RMS value, alternating current, voltage and power resistors, capacitors and inductors in AC circuits, ideal transformers and the concept of resonance. Introduction to the operation and basic applications of first order passive, low and high pass, RC filters. Corequisite(s): MTH 129 Credits: 4
(3,2)

EET 105 Introduction to Digital Electronics

An introduction to the fundamental concepts of Digital Electronics. Topics covered: Number systems, Boolean Algebra, Logic Gates, Combinational Circuits, Karnaugh Map Minimization Techniques, Adders, Signed Numbers, Multiplexers, Code-Converters, Decoders, Encoders, Comparators and 7-segment displays. The laboratory component of the course reinforces the topics covered in the theory through relevant experiments performed by students using logic trainers. Corequisite(s): EET 111 or EET 104 Credits: 2
(1,3)

EET 110 Computer Applications

An introduction to computer programming with applications. Examples and assignments are drawn from problems in Electrical and Computer Engineering Technology. The course uses Windows based PCs, the "C/C++" programming language (visual C++), and IEEE-488 Standard interfacing to programmable instrumentation. Prerequisite(s): EET 111 Credits: 2
(1,2)

EET 111 Electric Circuits I

A basic course in direct current circuit theory. Concepts of charge, current and voltage; Ohm's Law, Kirchoff's Laws; analysis of series, parallel, and combination circuits; mesh and nodal analysis; Superposition, Thevenin's and Norton's theorems; maximum power transfer theorem; electric fields and capacitance; magnetic fields and inductance; analysis of R-C and R-L switching networks. The laboratory is coordinated with, and supports, the theory course. Corequisite(s): MTH 129 Credits: 4
(3,2,1)

EET 113 Electric Circuits II

This is the second of a two-course sequence designed to provide the background needed to analyze electric networks. Topics covered in this course include sinusoidal waveforms and non-sinusoidal waveforms; the phasor representation of sinusoidal signals; the use of complex numbers to analyze R-C, R-L, and R-L-C networks under sinusoidal steady-state conditions; series and parallel resonance; average power calculations; simple passive filters, frequency response (dB magnitude and phase) and its relations to the step response of simple R-C, R-L and R-L-C networks; transformer principles and types of transformers; three phase balance systems. Prerequisite(s): EET 111 and MTH 129 Credits: 4
(3,2,1)

EET 118 Semiconductor Devices and Circuits

Fundamentals of semiconductor diodes and bipolar junction transistors are discussed in this course. Topics covered include: Q point operating conditions of semiconductor diodes in various circuit configurations, full and half-wave rectification, capacitor input filters, zener diodes and basic linear DC power supply configurations. Q point operating conditions of BJT transistors in various bias configurations are analyzed as well as small signal single-stage and multi-stage amplifiers at mid-band frequencies in terms of voltage gain, current gain, power gain, input impedance, output impedance, AC load lines and signal node voltages. Corequisite(s): EET 113 Credits: 4
(3,3)

EET 191 Electric Circuits Concepts and Components

An introductory lecture/demonstration course in the terminology, concepts, and components of electric circuits. The aim is to give students from other disciplines (e.g. Office Management, Nursing, etc.) sufficient knowledge and understanding to effectively communicate with technical specialists in this field. Prerequisite(s): Sequential (Integrated) Math 1 Credits: 4
(4,0)

EET 200 Electronic Devices & Circuits

Principles and characteristics of semiconductor devices and linear integrated circuits are discussed. Devices studied include: semiconductor diodes, zener diodes, bipolar junction transistors, photodiodes and transistors, field- effect and metal oxide semiconductor transistors, thryristors , and operational amplifiers in various DC power supply, small signal and power amplifier configurations as well as wave shaping circuits. Simulation software will be used throughout the course in both theory and laboratory exercises. Prerequisite(s): EET 104 Credits: 4
(3,2)

EET 223 Digital Electronics

Analysis and design of combinational and sequential logic circuits. SSI and MSI circuits; flip-flops, counters, and shift registers; integrated circuit families; multiplexers; semiconductor memory devices; D/A and A/D converters. The associated laboratory reinforces the topics covered in the theory through relevant experiments performed by the student. A formal report is part of the laboratory requirement. Prerequisite(s): EET 105, EET 118 Credits: 4
(3,2)

EET 224 Amplifiers

Signal parameters of Class A and Class B power amplifiers as well as operational amplifiers are studied in this course. Topics covered include, efficiency, dB, dBm, heat sinks, JFET and MOSFET transistors, operational amplifiers, and the frequency response of amplifier circuits. In addition, operational amplifier characteristics and models are used in the analysis of open loop and closed loop amplifiers. Adders, subtractors, active filters, comparators, differentiators, integrators, and the Schmitt trigger are also studied. Feedback concepts and the effect of feedback on gain, impedance and frequency response of amplifiers are studied as well as circuit stability, gain, and phase margins. Simulation software is used in the analysis of operating conditions and frequency response of amplifiers. Formal Report writing is part of the Laboratory requirement. Prerequisite(s): EET 118 Corequisite(s): EET 110, MTH 130 Credits: 4
(3,3)

EET 225 Communications Electronics

An introduction to communication signals and circuits. Topics include: filters, simple audio and RF oscillators, interpretation and application of Fourier series; mathematics of amplitude; frequency and phase modulation; basic transmitter circuitry; superheterodyne receivers for various modulation methods; multiplexing techniques including FM stereo multiplexing. Introduction to Digital Transmission Techniques as time permits. Prerequisite(s): EET 224 Credits: 4
(3,3)

EET 251 Microprocessors

Fundamental microprocessor and microcontroller concepts; architecture, memory, memory interfacing, programming, signals, timing, delay calculations, I/O interfacing and interrupts. The students will be required to interface input and output devices to the embedded controller and quantify associated hardware/software trade-offs. Laboratory work requires programming in assembly language and in C/C++. Prerequisite(s): EET 223 Credits: 3
(2,3)

EET 311 Network Analysis

A calculus based network analysis course that introduces the use of Laplace transforms in the analysis of both active and passive lumped parameter time-invariant linear networks. Topics covered include Mesh and Nodal analysis using matrix formulations; the network theorems; impedance and the modeling of initial conditions; first and second order systems; transfer functions; poles and zeros; impulse and step response; forced and natural response as well as system stability and time domain response. The sinusoidal steady state (AC) phasor transformation and its relation to the Laplace transform and the frequency response of networks are also included. The laboratory utilizes simulation of electric networks. Corequisite(s): MTH 236
Credits: 4
(3,2)

EET 316 Digital Design

Introduction to Digital Design using FPGA (Field Programmable Gate Arrays) and VHDL (Hardware Description Languages). The FPGA circuits are designed using Schematic Capture as well as VHDL. The target chips are Xilinx FPGAs and Xilinx tools are used to simulate and to "place and route" the design. Designs are then tested using FPGA based platforms. Prerequisite(s): EET 223 Credits: 4
(3,3)

EET 317 Industrial Electronics

Selected topics involving Difference and Instrumentation amplifiers with Transducer Bridge applications. Linear and Switching mode regulated power supply operation with analysis and design techniques using existing industrial ICs Thyristor characteristics with SCR, DIAC and TRIAC applications in power control circuits. Theory concepts are illustrated in the laboratory. Formal report writing is part of the laboratory requirement. Prerequisite(s): EET 224 Credits: 4
(3,2)

EET 327 Signal Processing

The course will provide the students with an introduction to continuous-time and discrete-time signals and systems. Topics to be covered include: Linear Time-Invariant (LTI) systems, Laplace transforms, transfer function, impulse and step response, transient and steady state responses, frequency response, Bode plots, passive and active filters, modulation, oscillators. Fourier series and Fourier transforms, power spectral density and Parseval's theorem. Random signals and noise. Signal-to-noise ratio. Discrete-time signals. Sampling, filtering, convolution, Discrete Fourier Transform (DFT), Fast Fourier Transform (FFT) algorithms, and the z-transform. The use of MATLAB is integrated throughout the course in laboratory exercises, demonstrations and student projects. Prerequisite(s): EET 311 Credits: 4
(3,3)

EET 414 Transmission Lines and Antennas

Introduction to transmission lines. Transient response for conditions of matched and mismatched impedance. Definition of reflection and transmission coefficients. Sinusoidal signals, standing wave ratio and use of the Smith chart. Power measurement. Introduction to antennas. Radiation pattern and impedance of simple dipole antennas. Formal laboratory report writing required. Prerequisite(s): EET 225 Credits: 4
(3,2)

EET 418 Microprocessor Interfacing and Control

This course covers an in-depth study of microprocessor systems by exploring the internal functions of a computer. Hardware and software capabilities are studied in order to build a foundation for the design and interfacing of microprocessor based systems using real world examples. Assembly as well as a high level language such as "C++" is used in various programming projects and in interfacing devices. Prerequisite(s): EET 110 and EET 251 Credits: 4
(3,2)

EET 420 Linear Systems and Controls

This course covers the principles and characteristics of continuous time invariant linear systems and controls as well as the basic performance parameters and analysis techniques of such systems. Topics include: Review of Laplace Transforms and their applications in analyzing the performance of systems in terms of their impulse and step response; block diagram models, signal flow graphs, and state variable representation of systems; second order active filters and the performance characteristics of second order systems in terms of overshoot, speed and setting time. Feedback Control System characteristics, the Routh-Hurwitz stability criteria, and the application of Root Locus and Frequency Response techniques in the analysis of control systems are also covered. The laboratory utilizes MATLAB to demonstrate and enhance the theory principles covered in the lecture portion of the course. Prerequisite(s): EET 311 Corequisite(s): MTH 245 Credits: 4
(3,2)

EET 426 Digital Communications

An introduction to digital communications systems. Topics covered include; the sampling theorem; PCM systems; synchronization techniques; noise analysis and reduction; FSK; PSK; bit error rates; hamming codes; and an introduction to fiber optic systems. Prerequisite(s): EET 225 Credits: 3
(3,0)

EET 428 Advanced Microprocessors Theory

This course covers various hardware applications of a special purpose microprocessor systems and peripheral devices such as floating point processors and interrupt controllers. Practical approaches of interfacing the microprocessor with different systems are explored. Laboratory assignments make use of assembly level as well as a high level programming language. Prerequisite(s): EET 418 Credits: 4
(3,3)

EET 440 Data Communications and Networking

This course covers the basic concepts of networking and computer connectivity. Several network topologies and related media access techniques are explored. The rudiments of Data Communications and Open System Interconnection (OSI) are discussed in detail. Students will learn the components of a client server networks using the Novell's Net Ware/ Intra Net Ware. Certain protocols such as TCP/IP and SPX/IPX are also discussed. Laboratory experiments are designed to give students a hands on experience in Network administration, configuration and resource management. Completion of this course includes a final project related to the design of a local area network, complete with Layers I and II, as well as the Directory Tree Structure based on the netware. An oral presentation by each student of his/her project is required. Prerequisite(s): Knowledge of digital electronics; familiarity with a real time operating system; ability to program in a high level language. Credits: 4
(3,3)

EET 441 Advanced Networking

This course is a continuation of EET 440, Networking and Data Communications. The principles of Architecture Layering, Multiplexing and Encapsulation are discussed. TCP/IP, IPX, PPP, ISDN and Frame Relay Protocols are covered. Network equipment such as repeaters, bridges router hubs and switches are studied in detail. Equipment examples are drawn from key vendors such as CISCO, 3COM and Cabletron. The laboratory portion of the course will concentrate on experiments and projects designed using CISCO Systems networking equipment, such as 2500 and 2600 series routers, 1900 and 2900 catalysts switches. The students will also learn how to design networks using VLANS on the above mentioned equipment. Prerequisite(s): EET 440 Credits: 4
(3,3)

EET 450 Design Concepts

General design considerations and concepts with particular emphasis in "worst case" design and "optimum" design. Case studies will be provided through examples of different areas of Electrical Engineering Technology. Product development procedures and processes will be presented along with testing and costing considerations. By the end of this course students must select their senior design project for EET 452W and must submit an appropriate proposal. Prerequisite(s): Completion of junior level EET courses or Department permission. Credits: 2
(2,0)

EET 452W Design Project (Writing Intensive)

The student's overall technical knowledge is applied to this "capstone" design project under the supervision of faculty. A complete oral and written presentation is required of each student explaining the design process and specifications, cost considerations, testing and/or computer simulation results when appropriate. Note: Students will be expected to write short exercises, as well as longer papers that will be revised and graded. This is a writing-intensive course. Note: EET 452W can be used to fulfill the writing intensive requirement. Prerequisite(s): EET 450 and EGL 101 with a grade of C or higher Credits: 2
(1,2)

EET 490-492 Selected Topics in Electrical Engineering Technology

Courses that range from 490-499 are selected topics of current interest in Computer and/or Electrical Engineering Technology.   Prerequisite(s): Contingent upon selected topic Credits: 3
(2,3)

ENGLISH

EGL 097 Basic Writing Skills

A developmental course concerned with the improvement of written communication skills. Students review grammar and mechanics, syntax, vocabulary, paragraph and essay organization, and reading skills. Students are required to pass an exit exam, and a pass/repeat grade is awarded for the course. This course is not applicable toward a degree. Fall, Spring, Pass/Repeat Grade will not be computed into GPA. 3 ncu (non-credit units)
(3,0)

EGL 101 Composition I: College Writing

This is the first part of a required sequence in college essay writing. Students learn to view writing as a process that involves generating ideas, formulating and developing a thesis, structuring paragraphs and essays, as well as revising and editing drafts. The focus is on the development of critical and analytical thinking. Students also learn the correct and ethical use of print and electronic sources. At least one research paper is required. A grade of C or higher is a graduation requirement. Note: Students passing a departmental diagnostic exam given on the first day of class will remain in EGL 101; all others will be placed in EGL 097. Prerequisite is any of the following: successful completion of EGL 097; an SAT essay score (taken prior to March 1, 2016) of 7 or higher; an SAT essay score (taken after March 1, 2016) of 5 or higher; on-campus placement testing. Credits: 3
(3,0)

EGL 102 Composition II: Writing About Literature

This is the second part of the required introductory English composition sequence. This course builds on writing skills developed in EGL 101, specifically the ability to write analytical and persuasive essays and to use research materials correctly and effectively. Students read selections from different literary genres (poetry, drama, and narrative fiction). Selections from the literature provide the basis for analytical and critical essays that explore the ways writers use works of the imagination to explore human experience. Grade of C or higher is a graduation requirement. Prerequisite(s): EGL 101 Credits: 3 (3,0)

EGL 105 Honors Freshman Composition

An interdisciplinary approach to reading and writing in such fields as philosophy, history, ethics, and science, emphasizing their interrelationships. Students explore issues in depth via term papers, presentations by guest speakers, and visits to museums, corporations, libraries, and theaters. Prerequisites: Permission of English/ Humanities department chair. Credits: 3 (3,0)

EGL 200 Shakespeare

A survey of representative comedies, tragedies, romances, and histories showing Shakespeare's dramatic variety. Acting styles are emphasized with the use of recordings, tapes and, when possible, live performances. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3 (3,0)

EGL 201 English Literature: Old English through the 18th Century

A historical survey of English literature from the beginnings to neoclassicism. Consideration is given to Anglo-Saxon and medieval writers, Chaucer, Elizabethan and Jacobean writers, Shakespeare, Milton, and the writers of the Age of Reason. English history, religion, and philosophy are studied as they relate to literature. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3 (3,0)

EGL 202 English Literature: 19th Century to the Present

An historical survey of Romantic, Victorian and Modernist literature. Emphasis is placed on the development and continuity of literary traditions. Prerequisite(s): EGL 102 with a grade of C or higher. Credits: 3 (3,0)

EGL 203 American Literature: Beginnings to 1865

An examination of major historical and new canonical American authors; genres, and periods of the seventeenth, eighteenth, and part of the nineteenth centuries up to the Civil War. An analysis of the works of writers of the New Republic, the Revolutionary and Federalist periods of the eighteenth century, as well as the emerging national literatures of indigenous and colonizing groups; the ages of Transcendentalism, American Gothic, early Realism as well as the works of Native American, Feminist, African-American, Abolitionist, Frontier and Civil War writers will be considered. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3 (3,0)

EGL 204 American Literature: 1865 to the Present

An examination of major historical and new canonical American authors, genres and periods of the era from the Civil War through the twenty-first century. An analysis of such trends as Realism, Naturalism, immigrant literature, the regional and local color movements, as well as the rise of biographical genres, and the influence of psychology and technology on literature will be made. Modernism, the renaissance in American poetry, the Harlem Renaissance, and the literature of social critique will also be examined. Note: Students cannot get credit for EGL 204 and 204W; EGL 204W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the English Department Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3 (3,0)

EGL 206 World Literature: Early Classics

An introduction to Western and non-Western literature from earliest times through the seventeenth century. Included are works from ancient Greece and Rome, Medieval and Renaissance Europe, the Middle East, Africa, China, and India. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3 (3,0)

EGL 207 World Literature: The Moderns

An introduction to Western and non-Western literature from the eighteenth century through the twentieth century. Included are works from authors of the Enlightenment, the Romantic and Realist Movements, and the twentieth century from the Continent and the Third World. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3 (3,0)

EGL 210 Introduction to Drama

A survey of Western drama stressing close reading of plays from ancient Greece, Elizabethan and Restoration England, nineteenth-century Scandinavia and Russia, and twentieth-century Britain and America. The changing concepts of comedy and tragedy are discussed. Note: Students cannot get credit for EGL 210 and 210W; EGL 210W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the English Department Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3 (3,0)

EGL 212 Introduction to Fiction

A survey of American, British, and continental prose fiction. An understanding of the critical theory of such works is stressed. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3 (3,0)

EGL 214 Introduction to Poetry

A survey of English language poetry. Selected works of both traditional and contemporary poets are analyzed and discussed. Note: Students cannot get credit for EGL 214 and 214W; EGL 214W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the English Department Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3 (3,0)

EGL 216 Creative Writing

An introduction to a wide spectrum of written formats, especially those employed by writers of fiction and poetry. Students read in these genres and submit a short written piece, in either genre, for each class. In addition, students complete a major project in their chosen area. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3 (3,0)

EGL 222 Women in Literature

An exploration of the position of women in various cultures as interpreted by major world writers. Focus is on the female protagonist's attainment of goals in marriage, family, and work. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 225 Images of Women in Drama

A study of images of women in Western drama from ancient times to the present. This course will consider the development of drama as a popular art form reflecting gender issues of its time. Note: Students cannot get credit for EGL 225 and 225W; EGL 225W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the English Department Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 226 Journalism

An introduction to practical journalism in which students write news and feature stories, editorials, and reviews, and examine techniques of newspaper design and photography. Classes include readings and discussions in the theory of mass communications. Student materials may be printed in campus publications. Note: Students taking this course may not receive credit for PCM 226. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 228 Classics and Mythology in Popular Culture

This course presents a cross-cultural and cross-disciplinary examination of the meaning and value of such myths as those of the creation, the flood, and the hero, and their depiction in literature, art, film, and music from the ancient past to the present. Students will acquire an understanding of the uses of mythical themes and archetypes both in ancient art and literature as well as in modern art, literature, and film. Course work includes assigned readings, film screenings, informal journals, a formal paper and exams. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 230 Literature of the Bible

A study of the origins, themes, and history of Biblical literature based on the new international version of the Bible. Later literature and other arts influenced by the Bible are included. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 232 Voices of Multicultural America

A study of selected fiction, poetry, autobiography and memoirs of American immigrants of the 20th and 21st centuries. The thematic focus of this course is the way in which writers from different cultures shape the stories of their lives, particularly as they encounter the realities of American experience and test the truth of their American dreams. Lecture and discussion of individual writers will address the different genres and styles used by these immigrant writers as well as thematic parallels and differences between writers from different cultural backgrounds. Readings may vary each semester but will reflect the cultural diversity of American immigrant writing, including writing by Caribbean writers, Asian-Americans, Latino Americanos, Jewish, Italian, Irish, and other Eastern European immigrants. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 240 Themes in Science Fiction in Film and Literature

An exploration of how writers of science fiction have used science and technology to examine moral questions, social issues and the boundaries of technology. Readings of selected authors will focus on the ways creative writers have explored various aspects of the genre, including scientific experimentation, alternate time/space continuum, weaponry, psychic phenomena, cyberspace, bionics, alien life and the future. The class will also view cinematic adaptations of the selected works to examine whether/how the change of medium affects the emphasis and impact of the work and how visualization and special effects affect the audience's perception. Course work includes assigned readings, film screenings, informal journals, and formal papers. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 242 Film and Literature

Students will read selected short fiction and novels by English, American and other writers and view the films that have been made from them by prominent directors. The course will develop students' understanding and appreciation of both literature and film. Students will examine how great writers elicit the complex response they do from their readers, and then explore the ways that film provides an interpretation of literature. Analysis and discussion will center on how the visual media shapes literature as various directors adapt texts for the screen. The ability to interpret the texts and films appreciatively and critically will be assessed through a series of class projects and examinations. Note: Students cannot get credit for EGL 242 and 242W; EGL 242W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the English Department Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 244 Classics of Supernatural Film and Literature

This course engages students in the principle forms of artistic expression integral to classic works of supernatural literature and their cinematic adaptations. Students will acquire an understanding of the creative process inherent in these works, an understanding of the literary and cinematic conventions of the genre and will also develop a critical vocabulary that will allow them to discuss and to evaluate these works and others in depth. Cinematic adaptations of these works in particular follow the evolution of the cinema itself; thus students in this course will also gain a critical understanding of its aesthetic and technological development. This course will also focus on film composition, including the shots, angles, iconography and editing typical of this genre. Course work includes assigned readings, informal and formal papers requiring primary and secondary research, critical analysis of required screenings, and exams. Students will be required to attend and to complete critical analyses of campus and off-campus theatrical screenings as they are scheduled. Note: Students cannot get credit for EGL 244 and 244W; EGL 244W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the English Department Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 246 Themes in Literature

This course will enable students to explore a major literary theme. The theme may vary in different semesters or in different sections of the course during a single semester. Themes may include nature writings, literature of the Holocaust, literature of the American West, and Long Island in fiction, among others. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 250 Young Adult Literature

Students will trace the historical and psychological development of the concept of "adolescence" by studying the canonical literature for young adults that shaped cultural ideas of adolescence. Students will read a wide representation of classic 20th century Young Adult authors, including Judy Blume, Robert Cormier, Chris Crutcher, Paula Danziger, S.E. Hinton, Harper Lee, Lois Lowry, Patricia MacLachlan, Walter Dean Meyers, Gary Paulsen, Cynthia Voigt, and Paul Zindel. The class focuses on the literary analysis of different Young Adult genres: dystopia, fantasy, historical fiction, realism, nonfiction, photojournalism, and graphic novels. Class is conducted through the innovative method of reading circles, and so requires active student participation. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 255 Children's Literature

Students will trace the historical and psychological development of the concept of childhood by studying the canonical literature for children that shaped cultural ideas of childhood. Students will read a wide representation of classic and contemporary "children's" literature including fairy tales, fantasy, poetry, adventure stories, historical fiction, and picture books. The class focuses on the literary analysis of different genres in children's literature. Prerequisite(s): EGL 101 and EGL 102
Credits: 3
(3,0)

EGL 266 Fantasy in Literature and Film

Fantasy in Literature and Film examines not only the oldest literary genre but one that continues to fascinate readers old and young and to inspire some of the most innovative and technically sophisticated films. Works of fantasy overlap other genres: myth, fairy tales, epic sagas, tales of the grotesque, juvenilia, adventure stories, and some science fiction. However, fantasy is the study of what can never actually be real, that is, what we dream about or can only imagine. Readings include traditional works of fantasy from the earliest recorded texts as well as beloved children's and young adult "classics" of this genre. Film adaptations as well as original films in this genre will also be analyzed and critiqued. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 269 The Romantic Arts: Art, Dance, Literature and Music

This course examines the art, dance, literature and music of the Romantic Period of each of the disciplines. Students will acquire an understanding of the aesthetic concerns of each of these art forms in the period in which they were created and develop a critical vocabulary that will allow them to better understand, evaluate, and discuss the works in depth. Course work includes readings, field trips to art exhibits and performances, and extensive use of audio-visual materials. The course will require both informal and formal papers that utilize primary and secondary research materials. By examining multiple art forms, students will develop greater aesthetic and critical understanding of the art forms of the Romantic period included in the course study. Note: Students cannot get credit for EGL 269 and 269W; EGL 269W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the English Department Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 301 Advanced Grammar and Vocabulary

Students will master a study of descriptive and prescriptive English grammar and will become familiar with concepts of linguistics and semiology. Students will expand their vocabulary by learning the use of a broad range of words and by understanding their etymological roots, their appropriateness to situation and audience, and their function in smooth syntax. Students will develop skills leading to the use of precise, concise prose style. Mastery of grammar, vocabulary and style is essential to professional-level reading, writing, speaking, listening, and editing. Students completing this course may not receive credit for PCM 301. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 302 The 19th Century English Novel

Select novels by major British authors of the nineteenth century, such as Austen, the Brontes, Mary Shelley, Dickens, Thackeray, George Eliot, Trollope, Hardy and Conrad, are read. Attention is given to the social, economic, political and intellectual backdrop informing the content of the novels. Secondary sources are required. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 307 Special Topics in Literature

This course will enable students to explore intensively a major author or literary theme, period or genre. The subject for a particular semester will be announced prior to registration. Topics may include love, lust and marriage; persuasion and propaganda; and World War I writers, among others. Short papers involving secondary sources will be required. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 308 The City In Literature, Art, Film and Theatre

This course examines depictions and interpretations of the city through literature, film, theatre, photography, painting, sculpture and architecture. Initially, the focus will be on New York City, although subsequent semesters, it may extend to other major world cities such as London, Paris, Rome, or Athens. Students will gain an understanding of the aesthetic value of the different art forms as well as develop the critical vocabulary to help them evaluate the various literary and artistic works. Course work includes assigned readings, field trips to museums in New York City, and extensive use of audio-visual material. Both informal writing (response journals) and more formal papers, including a research paper utilizing primary research (photographs, maps, interviews with artists, slides etc.) and secondary critical and/or historical studies will be required. Note: Students cannot get credit for EGL 308 and 308W; EGL 308W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the English Department Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 309 Voices of Black America in Poetry, Prose and Song

A study of the oral and literary tradition of African Americans in poetry, prose and song. This course provides both a historical examination of the written and oral tradition of African Americans in its own right and as a lens through which American culture can be viewed. The course will explore the developing aesthetic concerns of this tradition in different historical periods as, for example, the question of dialect before, during and after the Harlem Renaissance and the later Black Arts movement up through contemporary rap. Students will also consider how many texts by African Americans combine literary and musical forms, particularly spirituals, blues, jazz, hip hop and rap. Critical readings and research project required. Students who have completed EGL 224 may not receive credit for this course. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 310 Technical Writing

A detailed study of the fundamentals of writing technical reports and other technical communications. Topics emphasized include the elements of a technical report, the interpretation of statistics and data, and the composition of letters, memos, and informal reports containing technical information. Assignments and student exercises are drawn from the student's technical area. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 311 Introduction to Writing for Electronic Media

Introduction to Writing for Electronic Media will give students an overview of the issues concerning electronic media, including legal and ethical concerns. Students will also learn the history of the media, including the Internet and World Wide Web. Students will learn how to write for electronic media in hands-on training in the school's computer labs using industry-standard programs. Note: Students taking this course may not receive credit for PCM 311. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 312 Major Authors in American Literature

An in-depth examination of the major trends in American Literature as reflected specifically through the works of individual authors. The instructor will select the two or three authors to be studied each semester. Secondary sources, a major research project, and an annotated bibliography of criticism of a particular work will be required. Note: Students cannot get credit for EGL 312 and 312W; EGL 312W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the English Department Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 314 Major Authors in World Literature

An in-depth examination of major trends in world literature as reflected through the works of individual authors. One to three authors are studied each semester. Requirements include a substantial research project involving critical research. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 316 Women in Modern Literature

In this course students will examine major American texts by women writers from the beginning of first wave feminism to the present. While most of the works studied will be narrative fiction, some non-fiction, drama, poetry, and memoirs are included. Themes addressed in this course include women's relation to work, religion, nature, marriage and family, their struggle for voting rights, equal treatment under the law, and as immigrants to America from different cultures. The focus of the course is the ways in which literary works both reflect and help to shape the history and culture of America. This includes examination of how particular genres, styles of writing, and literary techniques are utilized by the writers covered in this selective survey of American women writers. Note: Students cannot get credit for EGL 316 and 316W; EGL 316W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the English Department Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 317 Studies in Shakespeare

An analysis of Shakespearean plays, along with their sources, the early modern period in England, and traditional and contemporary critical commentary. Four or five plays will be studied each semester. Requirements will include examinations and analysis of plays. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 318 Advanced Creative Writing

An intensive workshop experience in which students are taught to recognize and appreciate excellence in the poetry and fiction of significant contemporary writers, and to produce polished works in these genres. Students will be required to keep a formal writer's journal and to participate in formal readings of their works, as well as provide pertinent critical evaluations of the writing of others. Prerequisite(s): EGL 216 with a grade of C or higher Credits: 3
(3,0)

EGL 319 Modern Drama

This course provides an in-depth examination of representative plays of Modern Drama (late nineteenth century through the twentieth century), focusing on such literary movements as realism, expressionism, relativism, epic theater, theater of the absurd, and focusing on the historical and cultural context of the different literary movements and the representative plays. Requirements include a research project involving traditional and contemporary criticism. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 322 Leadership in Fact, Fiction and Film

Leadership in Fiction, Fact, and Film examines various fiction and non-fiction materials from a business perspective. Students will explore leadership, ethics/values, motivation, interpersonal skills, power/authority, communication, gender roles, empowerment, change, etc., as these concepts are demonstrated in these various works. Students will analyze the problems in the materials and apply them to modern-day corporate work situations, reflecting upon how these works are practical and functional to successful management tasks, responsibilities, and leadership. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 323 Major Authors in British Literature

An in-depth examination of major trends in British literature as reflected through the works of individual authors. One to three authors are studied in depth each semester. Requirements include a research project involving traditional and contemporary criticism. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 330 Classical Greek Tragedy: Aeschylus, Sophocles and Euripides

This course introduces students to the Classical Greek Theater and its three great Athenian tragedians: Aeschylus, Sophocles, and Euripides through close readings of surviving texts in translation and through viewings of modern productions of these ancient theatrical works. Focusing on these playwrights' works both as art forms and as products of a specific historical society, the course will address the role this drama played in the lives, culture, and aesthetic sensibilities of the ancient Greeks as well as its role as a living art form in contemporary society. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 331 Death, Madness and Sex: The Victorians

Focusing on three of the predominant obsessions of Victorian society, this course will study the literary, artistic, and aesthetic explorations of these themes by authors such as Dickens, Stoker, Wilde, Tennyson, Rossetti, and Browning and artists such as Millais, Burne-Jones, Hunt, Leighton, Waterhouse, and Dadd to gain a comprehensive overview of this major literary, artistic, and cultural period. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

EGL 430 History of the English Language

An introduction to the development of the English language as a new universal language in the arts, sciences, and commerce. The course will treat such subjects as the ancestry of English, the history of English sounds and inflections, the sources of vocabulary, the making of words, meaning change, syntax and usage, dialectical variations, and introductory linguistic principles presenting language problems in the light of language history. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

ENVIRONMENTAL STUDIES

ENV 101 Energy Sustainability and Environment

This is an introductory course to create and enhance the critical awareness of the student regarding various forms of energy, sustainability issues and the impact on the environment through unbridled use of energy in the present day context. A scientific and technological approach is used to discuss various topics. The knowledge base of this course is derived from certain natural sciences such as Physics, Chemistry, Biology and Eco-Science. The main topics of discussion are: Forms of energy, energy conservation, impact on the environment by the use of energy, forms of renewable energy and sustainability issues. The critical policy issues related to energy are also discussed. The course prepares the student to be a fully aware citizen on energy issues facing the community and the world. Credits: 3
(3,0)

ENV 203 Sustainability in Architecture and Construction

This course gives an in-depth introduction and orientation to sustainability in built environment. Some of the areas this course will cover are: sustainable site, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, etc. Prerequisite(s): MTH 117or 129 and departmental approval required. Credits: 3
(3,0)

ENV 210 Energy Policy and Standards

This course gives an introduction to energy policy at various levels like the local governments, state and federal governments. Role of Public Service Commission, Inter and intra state energy markets, environmental laws as policy tools for energy generation and distribution are also topics of discussion. Influence of NGOs in shaping the energy policy is discussed. Topics like renewable portfolio standard, feed-in-tariff, distributed generation and its challenges etc. are included. Case studies involving local utilities will be discussed. Prerequisite(s): ENV 101   Credits: 3
(3,0)

ENV 301 Energy in Electronics and Computer Systems

This course is intended to find ways of building future electronic information processing systems, with major improvements in energy efficiency. In particular new electronic and computer devices extending from low- power nanoelectronic devices, through circuit design, chip-scale architecture, short-range interconnects, long-range interconnect, networks, software, storage systems, servers, green data centers and supercomputers are considered. Prerequisite(s): ENV 210 and Junior-level status. Credits: 3
(3,0)

ENV 305 Renewable Energy Systems I

This courses gives an overview of various renewable energy technologies like solar, wind, geothermal, hydro, bio fuels, fuel cells etc. The growth and potential of these technologies along with challenges faced by each of the technologies are discussed. Comparisons are made with conventional energy systems using fossil fuels. Prerequisite(s): ENV 210 Credits: 3
(3,0)

ENV 310 Renewable Energy Systems II

This course is a follow up course of Renewable Energy Systems I. This course undertakes detailed study of some of renewable energy technologies like solar, wind energy systems. Design installation and maintenance aspects of renewable energy systems are covered. Cost benefits analysis of energy systems included. Prerequisite(s): ENV 305 and MTH 130 Credits: 3
(3,0)

ENV 450 Capstone Project/Research

Capstone Project/Research course is a project course for Sustainability Energy and Environment Minor programs students. It is a course in which the student works on a self study mode under the supervision of a faculty member in the implementation of an approved design project proposal. At the end of the course students are required to provide a written report and make an oral presentation that addresses areas such as the design process implemented, product specifications, cost analysis, testing and/or computer simulation procedures used in the verification of results obtained as well as ethical and product liability issues addressed. Prerequisite(s): Approval of Advisor of the minor is required. Credits: 3
(3,0)

ENGLISH AS A SECOND LANGUAGE

ESL 091 Beginning English as a Second Language

A beginning course for non-native speakers of English emphasizing basic listening, speaking, reading and writing skills. Credits: 3
(3,0,0)

ESL 092 Intermediate English as a Second Language

A continuation of ESL 091. A course for the student who has attained a degree of fluency in speaking English but needs additional training in reading and writing skills. Credits: 3
(3,0)

ESL 093 Advanced English as a Second Language

A continuation of ESL 092. An advanced course for the non-native speaker of English who has already mastered basic skills. This course is designed to bring the student to the level of proficiency of a credit granting English composition course. Credits: 3
(3,0)

TECHNOLOGY MANAGEMENT

ETM 501 Engineering Quality Management and Reliability

This course covers the normal or Gaussian distribution, standard deviation, and confidence intervals including six-sigma. Advanced statistical concepts and methods are covered with an emphasis on implementation and practical applications. Monitoring and controlling product quality using statistical methods and parametric control charts is an integral part of this course. The principles of reliability engineering and their practical applications, including basic probability models for engineering components and systems failure, are presented with emphasis on practice oriented problem-solving class projects. Prerequisite(s): Graduate Status in ETM and permission of the graduate coordinator. Credits: 3
(3,0)

ETM 503 Research Methods for Tech Mgmt

In this course the students will be introduced to current statistical analysis methods and modern data acquisition techniques by utilizing the most recent computer software applications. Introducing the students to advanced sensor technologies for measurements of pressure, temperature, humidity and flow rate through wireless data communication is an integral part of this course. Prerequisite(s): Graduate Status in ETM and permission of the graduate coordinator. Credits: 3
(3,0)

ETM 510 Energy and Power Management Analysis

This course covers the identification and quantification of energy efficiency expressions for various energy sources. Greenhouse gas (GHG) emission and reduction methods and environmental management materials and techniques used in fossil fuel powered systems are discussed. Evaluation and comparison of the economic viability of both renewable and nonrenewable energy technologies, as well as monitoring, targeting, and forecasting (MT&F) their consumption, are integral elements of this course. Energy consumption management methods and techniques to help energy savings are also studied. Prerequisite(s): BUS 502 with a grade of C or better and Graduate Status in ETM and permission of the graduate coordinator. Credits: 3
(3,0)

ETM 511 Nanotechnology Principles and Applications

This course provides students with an overview of nanotechnology, covering the fundamental science and the numerous emerging applications of this interdisciplinary new technology. Starting with a discussion of the scientific principles governing nanotechnology, the course then explores novel approaches to making and characterizing nanomaterials and nanosystems. New optical, electrical, physical, and chemical properties of materials at nanoscale that may have a significant beneficial impact are examined. Emerging applications spanning the areas of bioscience, electronics, energy, the environment and others are explored. Prerequisite(s): Graduate Status in ETM and permission of the graduate coordinator.   Credits: 3
(3,0)

ETM 513 Computer Applications in Engineering

This course is geared toward the conceptual design, manufacturing and maintenance of technological devices. Students are introduced to different aspects of computer aided design, including solid mechanics, computational fluid dynamics (CFD), motion analysis and heat transfer. Relevant laboratory activities are conducted to acquaint students with constraint-based reasoning and design optimization. Concepts of computational power, parallel computing and cloud computing will be discussed as well. Laboratory course work furthers the application of theoretical concepts. Prerequisite(s): Graduate Status in ETM and permission of the graduate coordinator. Corerequiste: ETM 513L
Credits: 3
(2,2)

ETM 514 Engineering Analysis

This course examines the concept of engineering analysis. The course focuses on problems drawn from various engineering fields, such as heat transfer, fluid flow, forced oscillations, electric circuits, electric potential, and wave propagation. Topics include matrix algebra, matrix manipulation, application to systems of ordinary differential equations, and vector calculus. Complex numbers and complex analytic methods, matrix algebra packages such as MathCAD, Mathematica, or MATLAB are used. Definitions and basic properties of Legendre, Bessel, and other special functions are covered. Common problems in partial differential equations and solution by separation of variables, Eigen function expansions, Fourier integral, Laplace transform, and Fourier transform also are discussed. Prerequisite(s): Graduate Status in ETM and permission of the graduate coordinator Credits: 3
(3,0)

ETM 520 Control Systems Management

This course covers the principles and applications of time invariant linear control systems. Examples are drawn from electromechanical systems, sensors and actuators, electronic systems, active filters, robotics and programmable logic control systems (PLC). Topics covered include: Laplace transform, transfer function, time and frequency domain representations; block diagrams and signal flow graphs; state space representations; analysis and design of feedback control systems. Industry accepted software application such as MATLAB is extensively used throughout the course for projects and assignments. Prerequisite(s): Graduate Status in ETM and permission of the graduate coordinator. Credits: 3
(3,0)

ETM 521 Semiconductor Devices and Integrated Circuits

This course focuses on the fundamental concepts and practical perspectives of the semiconductor devices that comprise modern electronic circuits. It provides students with an in-depth understanding of device operating principles, circuit analysis and design methods, and an overview of processing technology. Topics covered include: semiconductor materials and devices; p-n junctions; bipolar junction transistors and field effect transistors; the MOS capacitor, MOSFET and CMOS; integrated circuits, amplifiers and frequency generators; digital integrated circuits; an overview of processing technology; novel nanoscale electronic and photonic devices. Prerequisite(s): Graduate Status in ETM and permission of the graduate coordinator. Credits: 3
(3,0)

ETM 530 Residential Development Management

This course covers current homebuilding systems in the United States from design to construction. It includes an overview of the homebuilding industry, housing demand, management of the homebuilding process, the regulatory environment, housing design guidelines, development of contract documents, and the residential construction process. It also covers structural, mechanical, electrical, and plumbing systems. Prerequisite(s): BUS 502 with a grade of C or better and Graduate Status in ETM and permission of the graduate coordinator. Credits: 3
(3,0)

ETM 531 Construction Cost Analysis and Advanced Estimating

This course covers the emerging techniques of construction cost analysis and advanced estimating. It includes estimating cycles, data collection and data sources for estimating, cost index, cost capacity factors, parameter cost, trade-off analysis, break-even analysis, depreciation, overhead, time value of money, rate-of-return analysis and forecasting. It also covers bid strategies, life cycle cost analysis, and cost-benefit ratio analysis. Prerequisite(s): BUS 502 with a grade of C or better and Graduate Status in ETM and permission of the graduate coordinator. Credits: 3
(3,0)

ETM 533 Heavy Construction Operation and Equipment

This course covers current heavy construction practice in the United States in terms of construction planning and optimum use of heavy equipment. It includes earthwork planning, equipment cost, geotechnical materials, machine specifications, trucks and hauling equipment management, aggregate production including concrete and asphalt, cranes, piles and pile driving equipment, and equipment for pumping water for job sites. The course includes ten laboratory experiments, two on planning earthwork, three on geotechnical materials, compaction, and stabilization, one on compressed air, two on aggregate production, and two on concrete production. Prerequisite(s): BUS 502 with a grade of C or better and Graduate Status in ETM and permission of the graduate coordinator. Corequisite(s): ETM 533L
Credits: 3
(2,2)

ETM 611 Modern Energy Conversion Technologies

This course provides description and analysis of energy conversion technologies with an emphasis on alternative energy sources including solar, wind turbine, and biomass energy systems. Biomass gasification to produce synthesis gas is discussed. Hydrogen cleanup and separation techniques using water gas shift (WGS) and palladium membrane or electrochemical systems (hydrogen pump) are also discussed. Other energy conversion devices are investigated, including thermoelectric and light-emitting diodes, solid-state refrigerators and Peltier, and Seebeck effects. Prerequisite(s): Graduate status in ETM and permission of the graduate coordinator. Credits: 3
(3,0)

ETM 612 Robotics, Automation, and Control Systems

This course covers different types of robots and their applications and control systems and provides 3D vector presentation for the kinematics and dynamics of robots. Feedback and fuzzy logic control systems are discussed. The use of robotics simulation software is integral throughout the course, which culminates in a project leading to the design and development of robotics integration systems with their peripherals. Prerequisite(s): ETM 520, Graduate Status in ETM and permission of the graduate coordinator. Credits: 3
(3,0)

ETM 623 Optical Communications

This course covers the principles of optical fiber communication systems and optical networks. Topics include optical fibers, propagation characteristics, attenuation and dispersion, optical sources such as light emitting diodes (LEDs) and lasers, passive components, optical receivers, PIN and avalanche photodiodes, optical amplifiers, and optical switches. Optical system design issues are discussed including power budget, bandwidth, Q-factor, and bit error ratio (BER). Wavelength division multiplexing (WDM) systems, nonlinear effects, and modulation techniques are also covered along with optical networks, topologies, and applications. Prerequisite(s): Graduate status in ETM and permission of the graduate coordinator. Credits: 3
(3,0)

ETM 624 Fundamentals of Photovoltaics and Photonics

This course focuses on the principles and applications of optical engineering systems as well as photonics and photovoltaics. Concepts in optical engineering and design of optical systems are covered. Topics include optoelectronic devices, photovoltaic solar cells and systems, photonic devices, and an introduction to LASERs. The operating principles of photovoltaic solar cells, including photon absorption, excitons, generation and recombination processes, carrier densities, and charge transport are covered. Emerging technologies involving nanostructures, quantum dots, and heterojunctions are also discussed. Opportunities and challenges facing the industry as devices are scaled at the nanometer range are explored. Examples of optical device design are drawn from areas of current interest such as photovoltaic solar cells, optical sensors, photonic crystals, and nano-photonics. Prerequisite(s): ETM 503 and ETM 520, graduate status in ETM and permission of the graduate coordinator. Credits: 3
(3,0)

ETM 631 Construction Contracts

This course covers details of construction contracts and related documents, which include contract documents, design phase documents, pre-bid documents, bid submission documents, forms of agreement, and documents supporting the agreement. This course also covers site condition clauses, red flag clauses, insurance contracts, and surety bonds, as well as documentation and record keeping requirements. In addition, labor agreements and joint venture agreements will be discussed. Prerequisite(s): BUS 502 with a grade of C or higher, graduate status in ETM and permission of the graduate coordinator Credits: 3
(3,0)

ETM 670 Master's Project

This is a Capstone course for students who do not plan to take the thesis option. The course is designed as an independent study in which the student utilizes their knowledge in the field to evaluate a series of case studies. A complete oral and written presentation is required of each student detailing his/her work. In each case study the student must clearly demonstrate their ability to understand, analyze and solve technical and/or managerial problems by applying their knowledge gained through their course work. Students completing this course will not receive credit for BUS 670. Prerequisite(s): Completion of twenty-one (21) credits of required Core and Track Specific Courses in the ETM program and permission of graduate coordinator. Credits: 3
(3,0)

ETM 671 Master's Thesis

This is an independent study performed by the students to utilize their knowledge in engineering technology management. This practice-oriented work contributes to the enhancement of productivity, the improvement of quality, and the achievement of an industry's cost effectiveness. The master's thesis draws on students' individual interests, stimulating their critical thinking, and sharpening their problem-solving abilities. A literature survey, analysis, discussion, and conclusions are documented in the thesis under the direction of a faculty mentor and presented by the student at the completion of the work to demonstrate his/her professional competency in their field of study. Students completing this course will not receive credit for BUS 671. Prerequisite(s): Completion of twenty-one (21) credits of required Core and Track Specific Courses in the ETM program and permission of graduate coordinator. Credits: 1-6
(1 to 6,0)

ETM 680 Master of Science in Technology Management

This special topics course is designed to inspire students to study a specific topic or several related topics that address a special interest in technology management. It will require students to research, investigate, and analyze design, manufacturing, quality, or production issues. The course strategy is established by the instructor and adjusted to respond to students' interest to achieve the class goal of enhancing in-depth understanding of the subject matter. Students taking ETM 680 cannot get credit for BUS 680. Prerequisite(s): Graduate status in the Technology Management and permission of the graduate program coordinator. Credits: 3
(3,0)

FRENCH

FRE 101 French I (Elementary)

A beginning course in French emphasizing the gradual development of the four language skills: listening, speaking, reading and writing with stress on communicative competence and cultural awareness.
Credits: 3
(3,0)

FRE 102 French II (Elementary)

A continuation of French 101 emphasizing the gradual development of the four language skills: listening, speaking, reading and writing with stress on communicative competence and cultural awareness.
Prerequisite(s): 2 or 3 years of high school French or FRE 101.
Credits: 3
(3,0)

FRE 203 French III (Intermediate)

A continuation of FRE 102 for students who have had 3 or 4 years of high school French. This intermediate course further emphasizes the development of the four language skills: listening, speaking, reading and writing with stress on communicative competence and cultural awareness. A literary and cultural reader will be introduced.
Prerequisite(s): required or 2 or 3 years of high school French. Credits: 3
(3,0)

FRE 204 French IV (Intermediate)

For those students who have taken FRE 203 or four or more years of high school French. This course emphasizes structural review, intensified practice in oral expression with increased emphasis on reading and writing skills. Continued attention will be given to contemporary French culture. Selections from French authors will be read. Prerequisite(s): Approval of this department chair or FRE 203
Credits: 3
(3,0)

FRE 301 French V (Advanced)

An advanced conversation/composition course with intensive practice in oral and written French. Prepared discussions and writing assignments on selected cultural historical and literary topics.
Prerequisite(s): Approval of this department chair or FRE 204. Credits: 3
(3,0)

FRE 302 French VI (Advanced)

A continuation of French V Advanced with intensive practice in oral and written French. Prepared discussions and writing assignments on selected cultural, historical and literary topics. Prerequisite(s): Approval of this department chair or FRE 204. Credits: 3
(3,0)

FRESHMAN EXPERIENCE

FRX 101 The Freshman Experience

This course will enhance successful adaptation to college life. Topics relate to the academic, social, economic, health, and interactional factors that influence collegiate success. Enrollment is limited to matriculated freshmen only. While this course is open to all students, priority is given to Liberal Arts students. Note: Students taking this course may not receive credit for RAM 101. Credits: 1
(1,0)

FRX 103 Career Planning for Freshmen

This course is designed to assist freshmen that are undecided about choosing a future career or major. The course emphasizes self-assessment, critical thinking, problem solving, decision making, educational and vocational planning, and orientation to college and reality testing. A successful adaptation to college is an overall goal of the course. Credits: 2
(2,0)

FIRST YEAR SEMINAR

FYS 101 First Year Seminar

This course will assist new students in transitioning from high school to college. Students will become familiar with college resources and will learn strategies for academic success. Through group work and problem solving, students will learn to turn to each other, faculty members, support staff, and their AAIC Academic Advisor for support. Note: Students completing FYS 101 may not receive credit for FRX 101.
Credits: 1
(1,0)

GEOGRAPHY

GEO 110 Maps and Map Analysis

This course is an introduction to the study and design of map formats, symbology, coordinate systems, and how maps record the historical patterns of human behavior. The course will also examine maps as a tool to analyze human activity and societal development, and include important aspects of map data collection, processing, the Global Positioning System (GPS), quantitative mapping, and GIS-based mapmaking techniques. Credits: 3
(3,0)

GEO 201 Physical Geography

This course introduces students to the study of the Earth as a system. We will cover the four major subsystems--the atmosphere, the hydrosphere, the lithosphere, and the biosphere--with a focus on the patterns and processes that shape the planet. The goal of the course is to provide students with a clear understanding of the complex and changing processes associated with physical geography, especially those which are important for solving environmental and economic problems associated with air, water, soil, flora, fauna, and other aspects of the natural world. Prerequisite(s): EGL 101 Credits: 3
(3,0)

GEO 201L Physical Geography Laboratory

This physical geography laboratory course can be taken as standalone (1) credit physical science lab or as accompaniment to the GEO201 Physical Geography course. This course introduces students to the study of the Earth as a system. This laboratory is designed to give an overview of the development, distribution, and interrelationships of landforms, climates, minerals, soils, and water resources.
Prerequisite(s): EGL 101 EGL 101 with a grade of C or better Credits: 1
(0,3)

GEO 211 The World and Its Peoples

This course is an exploration of the rich diversity of cultures and societies of the contemporary world, as well as an introduction to world geography and how it has shaped major developments in global history. Critical readings of recent ethnography will be used to examine themes such as ethnicity and migration, rural life and traditionalism, and family and kinship. Students will also be familiarized with the growth of cities, demographic changes, the development of a leisure culture, and attitudes towards work as we survey the major world regions (Southern Asia, the Pacific Rim, Sub-Saharan Africa, North Africa and the Middle East, the Americas, Europe, and Oceania). Furthermore, we will examine the interaction between humans and their physical environment, interrogate the role of language on national identity among peoples, and trace the evolution of world religions. Credits: 3
(3,0)

GEO 222 Human Geography

This course provides an introduction to human geography in its multiple forms: social, cultural, environmental, urban, economic, and political. Students will explore human interactions through the lenses of community, culture, and society. While the focus will be on human populations, there will also be discussions of how interaction with nature and the environment shape relationships through an analysis of the so-called "Man-Land Tradition." Globalization, cultural diversity, and migration will serve as important themes throughout the course. Prerequisite(s): Any 100-level HIS or POL course Credits: 3
(3,0)

GEO 231 Europe and Its Peoples

This course is an exploration of the rich diversity of cultures and societies of contemporary Europe, as well as an introduction to the continent's geography and how its unique physical attributes shaped world history. Critical readings of recent ethnography will be used to examine themes such as ethnicity and migration, rural life and traditionalism, and family and kinship. Students will also be familiarized with the growth of cities, demographic changes, the development of a leisure culture, and attitudes towards work in Europe. Furthermore, we will examine the interaction between Europeans and their physical environment, interrogate the role of language on national identity among European peoples, and trace the evolution of religion from paganism to "Post-Christianity." We will also study the development of political culture on the continent and historical and contemporary projects to create a united Europe from the Pax Romana to the European Union. Credits: 3
(3,0)

GEO 232 North America and Its Peoples

This course is an exploration of the rich diversity of cultures and societies that make up North America (i.e., United States, Canada and Mexico), as well as an introduction to the region's geography and how its unique physical attributes have shaped world history. Readings in spatially-inflected ethnography will be used to examine themes such as indigenous identity and rights, ethnicity and migration, religious practice, rural life, and cultural change. Students will also become familiar with demographic changes, industrialization, urbanization, land use, and the relationship between work and leisure in the region. Furthermore, students will study the development of political culture in the U.S., Canada, and Mexico, and contemporary efforts to bind the three countries through trade and regional cooperation. Prerequisite(s): Any 100-level or higher HIS, POL, GEO or GIS course. Credits: 3
(3,0)

GEO 290 Topics in Geography

This course offers instruction in special content areas in the field of geography. Students will explore the linkages between physical and human geography, focusing on a particular topic, e.g., globalization, technology, youth, cities, trade and economic development, etc. Students should consult the department before registering for any Special Topics course. Prerequisite(s): Any 100-level or higher HIS, POL, or GEO course Credits: 3
(3,0)

GEO 322 Cultural Geography

This course takes a critical approach to the study of human-environment interactions, focusing on how various cultural products and norms (as well as differences across cultures) shape our views about each other and the world around us. Students will be introduced to the comparatively new sub-discipline of cultural geography and interrogate the "cultural turn" in the field of geography. Students will engage the complex relationship between the "self" and the "other," addressing the topics of power, economy, race, religion, sexuality, ethnicity, gender, and nationalism. Prerequisite(s): Any 100-level or higher HIS, POL or GEO course Credit:3
(3,0)

GEO 323 Urban Geography

This course will trace the historical development of the city from its humble beginnings to its current form and beyond. We will explore the impact of environmental, economic, demographic, sociological, cultural, technological and political forces on the development of the world's urban centers. This course will also explore the effects that urbanization and urbanism has on the lives of the world's citizens and how cities are shaping the future of mankind. In addition to a theoretical treatment of the city, we will also take an in-depth look at the world's great metropolises. By focusing on representative urban centers in different world regions, students will gain insight into the commonalities and differences of cities around the globe. Class discussions will be supported by lectures on the development of urban centers in the United States. Prerequisite(s): Any 100-level or higher HIS, POL, or GEO course Credits: 3
(3,0)

GEO 325 Globalization & Sustainability

This course examines spaces and places of globalization and sustainability, focusing on patterns of production, consumption, urbanization, and land use. Concentrating on the period since 1979, the content will address economic, social, cultural, and political change on a global scale. In addition this course will cover questions of environmental degradation, climate change, mass extinctions and other impacts of the Anthropocene era and how these effects can be mitigated through sustainable practices. Prerequisite(s): Any 200-level or higher HIS, POL, or GEO course Credits: 3
(3,0)

GEO 330 Environmental Interactions

This course explores important environmental issues in sustainability facing society today. Topics to focus around understanding the changing spatial relationships between people and their environments, the causes and consequences of environmental degradation, strategies for building a more sustainable world, and the methods and approaches that scholars have used to understand human-environment interactions. Prerequisite(s): Any 200-Level Social Science Course Credits: 3
(3,0)

GEO 390 Special Topics in Geography

This upper-level course offers advanced instruction in special content areas in the field of geography. Students will explore a particular topic, theme, or sub-discipline, e.g., quantitative methods, climate change, race and ethnicity, etc. Students should consult the department before registering for any Special Topics course. Prerequisite(s): Any 200-level or higher HIS, POL or GEO course. Credits: 3
(3,0)

GERMAN

GER 111 German I (Elementary)

A beginning course in German emphasizing the gradual development of the four language skills: listening, speaking, reading and writing with stress on communicative competence and cultural awareness.
Credits: 3
(3,0)

GER 112 German II (Elementary)

A continuation of German 111 emphasizing the gradual development of the four language skills: listening, speaking, reading and writing with stress on communicative competence and cultural awareness. Prerequisite(s): 2 or 3 years of high school German or GER 111.
Credits: 3
(3,0)

GER 213 German III (Intermediate)

A continuation of GER 112 for students who have had 3 or 4 years of high school German. This course emphasizes the development of the four language skills: listening, speaking, reading and writing with stress on communicative competence and cultural awareness. A literary and cultural reader will be introduced. Prerequisite(s): GER 112 Credits: 3
(3,0)

GER 214 German IV (Intermediate)

For those students who have taken GER 213 or four or more years of high school German. This course emphasizes structural review, intensified practice in oral expression with increased emphasis on reading and writing skills. Continued attention will be given to contemporary German culture. Selections from German authors will be read. Prerequisite(s): GER 213 Credits: 3
(3,0)

GER 301 German V (Advanced)

A course in German which introduces the student who has completed the four basic skills (speaking, listening, reading and writing) to the German language of everyday business. The course gives an insight into united Germany's place in the world market. The topics are general enough to be of interest to most intermediate and advanced students, but at the same time offer preparation for the business minded student. Prerequisite(s): GER 214 Credits: 3
(3,0)

GER 302 German VI (Advanced)

A continuation of German V Advanced. Prerequisite(s): GER 301
Credits: 3
(3,0)

GEOGRAPHIC INFORMATION SYSTEMS

GIS 201 Mathematical Principles in Geography

This course demystifies the mathematics used in the manipulation of spatially related data. Students learn a step-by-step approach through the basics of arithmetic, algebra, geometry, trigonometry and calculus that underpin the management of spatially related data. Course topics include; overview of the most common symbols and operations for learners with no or very little knowledge of mathematics and an overview in concepts that builds a sufficient understanding basic math principles needed to excel in geography, GIS and spatial analysis. For a description of MP3 placement level please see the current College Catalog. Prerequisite(s): MP3 or MTH 116 Credits: 3
(3,0)

GIS 222 Geovisualization I

Geographic information systems (GIS) are computer systems designed for the creation, storage, retrieval, analysis, and visualization of spatial data. GIS is applied across fields as diverse as urban planning, environmental management, law enforcement, industrial location, and marketing, and for scientific research in many disciplines. This course is a hands-on course with a required lab period which will introduce students to foundational concepts and skills in working with spatial data, including finding and creating data, spatial analysis, and GIS-based map production. This course is a prerequisite for several upper-level GEO courses. Prerequisite(s): EGL 101, GEO 110 Corequisite(s): GIS 221L Credits: 4
(3,3)

GIS 231 Geospatial Research Methods

This course exposes students to the process of doing geographic research. Basic epistemological and ontological approaches will be reviewed through the use of readings on research methodologies and selected readings from the geography literature. Class discussion will focus on the identification of research problems, construction of hypotheses, and development of research design. The course will cover a variety of important contemporary geographic theories and will complete exercises to give students hands-on experience in completing qualitative and quantitative geographic research. Prerequisite(s): EGL 101, MTH 110 and Any 200-Level or Higher GEO course. Credits: 3
(3,0)

GIS 301 GIScience

This course will cover fundamentals of geographic information science (GIScience), the application of geographic information systems (GIS) technology to scientific inquiry involving geospatial data. GIScience intersects with fields as diverse as epidemiology, urban studies, environmental science, criminal justice, public policy, business management, marketing, data science, etc. This course offers hands-on application of techniques for the capture, storage, processing, analysis, and communication of geospatial data. Prerequisite(s): EGL 101 with a grade of C or higher and (any 200 level or higher GEO course or MTH 110) all with a grade of C or higher and Junior Level Status. Corequisite: GIS 301L Credits: 3
(3,3)

GIS 302 Remote Sensing for GIS

This course, including its required lab component, will explore some of the ways in which remote sensing systems provide geospatial information that is relevant, accurate, timely, accessible, available in an appropriate format, and cost-effective. Recent developments in Earth observation such as imaging radar, LiDAR and hyperspectral sensors are increasing the wealth of information that can be generated from remotely sensed data sources. As a consequence numerous new GIS applications that rely on advanced remotely sensed data sources have emerged at local, regional and global scales. Course will cover topics including; remote sensing principles, image acquisition, image analysis and GIS/Remote Sensing Applications. Prerequisite(s): (MTH 110 or MTH 116 or MTH 117 or MTH129) and GEO 221 or permission of the department chair Credits: 4
(3,3)

GIS 321 Geovisualization II

Maps can be powerful devices for communication, but also tools for exploration of relationships among social and physical processes manifesting in space. This course explores the history, science, and art of cartography. Students will use geographic information systems software to make reference and thematic maps. Students will apply principles of cartography, including the use of color, typography, and visual balance, to create maps which are informative, aesthetically pleasing, and ultimately convincing. Prerequisite(s): GIS 222 Credits: 3
(3,0)

GIS 322 Geovisualization III

This course explores selected techniques for deploying interactive, internet-based geovisualizations using both proprietary and open-source platforms. The focus of this course is client-side technologies that integrate a variety of geospatial data services using standard protocols and APIs. This is a hands-on course where students apply both standard and emerging practices for effective and attractive communication of geospatial information to a variety of audiences. Prerequisite(s): GEO 222 with a grade of C or higher Credits: 3
(3,0)

GIS 331 Spatial Analysis I

This course will cover statistical techniques for the analysis of spatial data, including spatial cluster detection, factor analysis, ANOVA, and multivariate regression. Special attention will be paid to spatial sampling and spatial autocorrelation. Students will complete computer exercises using statistical software. In addition to standard data visualization techniques (boxplots, histograms, scatterplots), students will learn how to create basic statistical maps for geovisualization. Prerequisite(s): MTH 110 Credits: 3
(3,0)

GIS 332 Spatial Analysis II

This upper-level course integrates geographic information systems (GIS) and spatial data analysis, with a focus on quantitative and qualitative methods, procedures for research design, and interpretation of findings. Topics include identification of spatial patterns, hypothesis testing, effective use of statistics, and data correlation. Prerequisite(s): MTH 110, GEO 221 or permission of department chair. Credits: 3
(3,0)

GIS 341 Geoprocessing I

This course introduces conceptual and practical aspects of programming for geographic applications. The main focus of this course is on developing a solid understanding of basic geoprocessing techniques including variables, looping, conditional statements, nesting, math, strings, and other concepts. Students in this course will develop a proficiency in applying these basic geoprocessing principles to manipulating spatial data sources within the Geographic Information Systems (GIS) environment. NOTE: This course are not substitutes for programming courses by the Computer Systems Department. Prerequisite(s) GIS 222 with a grade of C or higher Credits: 3
(3,0)

GIS 342 Geodata Management

GIS database management systems play an important role in domains that involve large and complex data with spatial references. This course is designed to give students an overview of GIS applications, an understanding of spatial and relational database concepts, and the practical experience of using GIS to solve real world problems. NOTE: This courses are not substitutes for programming courses by the Computer Systems Department. Prerequisite(s): GIS 222 with a grade of C or higher Credits: 3
(3,0)

GIS 431 Spatial Analysis III

The course will tackle the problem of analyzing spatial data with the R programming language. Different types of spatial data will be covered, such as point patterns, lattice data and data coming from irregular measurements of continuous processes (geostatistics). In addition, different worked examples will be presented showing how to proceed with the analysis of a wide range of spatial data sets. The topics of the course will contain an introduction to various R packages for the analysis of spatial data. This includes data import/export, data management and visualization, and how to fit a broad range of models for spatial data. The worked examples will focus on particular real data sets from Epidemiology, Environmental Sciences, Ecology, Economics and others. Prerequisite(s): GIS 331 with a grade of C or higher Credits: 3
(3,0)

GIS 432 Location Modeling and Analysis

This course covers issues and approaches in location analysis. Topics include location theory and models; representation issues; use of geographic information systems (GIS) for data preparation, analysis and display; evaluation of service areas; land use allocation; accessibility and locational conflict; and implications for planning and public policy. Prerequisite(s): (GIS 301 or GIS 222) and GIS 331 all with a grade of C or higher Credits: 3
(3,0)

GIS 441 Geoprocessing II

This course is intended to facilitate the student's aptitude in utilizing geographic data, geoprocessing and modeling, as well as increase student's understanding of conceptual issues related to geospatial research and analysis. The topics covered in this course are geospatial automation, creation of raster and vector data; geospatial analytic models, and spatial statistics. This course also covers Python scripting for geoprocessing as flexible approach for the development of spatial models. Course materials will be presented through lectures, discussions of readings, and demonstrations. NOTE: This course is not a substitute for programming courses by the Computer Systems Department. Prerequisite(s): GIS 341 with a grade of C or higher Credits: 3
(3,0)

GIS 491 Senior Seminar in GIS

Students integrate their knowledge of human and physical geography, as well as geographic techniques, to propose solutions to real-world problems. Students gain experience in working in small groups and in written and oral presentation of project results, and will be evaluated with respect to the skills acquired in their degree program. Topics may include, but are not limited to, issues such as sustainable development in rural communities, global and regional food and energy distribution, quantifying and analyzing global or regional indicators of environmental and/or societal trends. Prerequisite(s): Senior status and any 300 level GEO course. Credits: 3
(3,0)

GIS 492 Internship in GIS

This internship course will provide students the opportunity to gain hands on experience and knowledge with using geospatial technologies. This internship consists of a structured on and/or off-campus experience in a supervised setting that is related to the student's major and career interests. Practical experience is combined with scholarly research under the guidance of geography faculty and the entity providing the internship opportunity. At the end of the internship the student should have more of the necessary skills to help translate their chosen degree into a job, as well as a better understanding of how this degree relates to society. Prerequisite(s): Approval by Program Director or Student's Dept. Chair Credits: 3
(1,0,6)

COMPUTING GRAPHICS

GPH 103 Technical Drafting

This is a traditional manual drafting course including orthographic projection, dimensioning, auxiliary projection and pictorial representation. Emphasis will be placed on drafting techniques including lettering, line quality, accuracy and appearance. Credits: 1
(0,3)

GPH 104 Introduction to Computer Graphics

This is a laboratory course to provide basic understanding and skills in the College's computer graphics CAD software. Students will learn how to run Computer Aided Drafting (CAD) software on PC's to produce mechanical drawings. They will be taught commands and concepts, and develop the skills required. Some of the topics covered include: setup, drawing, erasing, saving, printing, lines, geometric construction, object snap, text, editing and basic dimensioning. Credits: 1
(0,2)

HISTORY

HIS 114 Western Civilization I

A brief survey from ancient Greece and Rome up to 1789, followed by extensive treatment of the ascendancy of early modern Western civilization, together with its social, economic, and political revolutions, from 1500 through the Napoleonic era. NOTE: Students completing HIS 114 and HIS 115 may not receive credit for HIS 126. Credits: 3
(3,0)

HIS 115 Western Civilization II

Traces the spread of Western civilization and the development of the modern world by examining the impact of the forces of romanticism, nationalism, industrialism, and intellectual creativity. NOTE: Students completing HIS 114 and HIS 115 may not receive credit for HIS 126. Credits: 3
(3,0)

HIS 117 World Civilization I

A survey of major non-Western civilizations and their interaction with one another, as well as with the European West from antiquity through the Early Modern Period. The course will explore ancient polytheistic traditions, the foundations of major world religions (Hinduism, Buddhism, Islam), and the rise of Christianity as a global faith. It will also address non-Western social, political, and economic systems in East Asia, South Asia, the Muslim World, Sub-Saharan Africa, and pre-Columbian America. Note: Students completing HIS 117 and HIS 118 may not receive credit for HIS 126. Credits: 3
(3,0)

HIS 118 World Civilization II

A survey of the developing world and its interaction with the West since 1700, the course will explore the chaotic effects of the non-Western world's interaction with European imperial powers, the United States, and Soviet Union, focusing on social, economic, cultural, and political change in East Asia, South Asia, the Middle East, Sub-Saharan Africa, and Latin America. The major themes of the course will center on imperialism, nationalism, modernization, the World Wars, and the Cold War. Note: Students completing HIS 117 and HIS 118 may not receive credit for HIS 126. Credits: 3
(3,0)

HIS 121 U.S. History to Reconstruction

A discussion of the development of the United States from its English origins through Reconstruction, this course shows how a new civilization arose out of revolution, independence, new governmental institutions, and equalitarianism, and illustrating the results of the westward movement, and the causes and consequences of the Civil War. Note: Students completing this course may not receive credit for HIS 125. Credits: 3
(3,0)

HIS 122 U.S. History Since Reconstruction

A historical evaluation of American society, assessing Reconstruction, immigration, the nature of imperialism, progressivism, World War I and II, the Cold War, and contemporary American life. Note: Students completing this course may not receive credit for HIS 125. Credits: 3
(3,0)

HIS 200 Introduction to Historical Methods

The purpose of this course is to provide an introduction to historical methods, including how to research historical events, evaluate sources, properly use citations, produce bibliographies, and write about history. The course also focuses on the teaching of history, including effective pedagogical methodologies, the debate over "political correctness," the use of primary sources, employing technology and visual media in the classroom, and how to address issues such as plagiarism. The course may also include an optional historiography component (at the discretion of the instructor), which will focus on a particular historical period and/or geographic region, with the aim of exposing students to breadth and width of historical approaches. Prerequisite(s): EGL 102 Credits: 3
(3,0)

HIS 210 America and the World

This course examines the changing role of the United States in global affairs and its consequences for American society from 1860 to the present. During this period, the US went from an isolated nation to a world power. This class explores such topics as late 19th-century imperialism, American involvement in World War I and II, isolationism and global depression, national security policy and strategy during the Cold War and post-Cold War eras, nuclear proliferation, the War on Terrorism and the balance of power in the 21st century. In addition, this course focuses on world historical themes such as industrialization, population growth, suburbanization and urbanization, and the exploitation of natural resources, and in the process, interrogates within a national and international context the idea of American exceptionalism, the origins and impact of US hegemony, and the use of national histories and ideologies. Prerequisite(s): Any 100 level or higher HIS course. Credits: 3
(3,0)

HIS 212 Modern World

Analyzes the impact of technology on the major political movements and governmental systems of the modern world since 1900. The course will examine the effects of technology on war, culture, ideology and the future. Credits: 3
(3,0)

HIS 213 Peoples and Cultures of Asia

A study of the peoples, cultures, religions, customs and philosophies of India, China, Japan, and southeast Asia, and discussion of the social and political effects of Mongol, Muslim, and Occidental contacts with the Orient. Credits: 3
(3,0)

HIS 214 East Asia and the World

This course examines modern East Asian history and culture as well as the multifaceted interactions between the region and the world in the global age. Focusing on the historical transformation of China, Japan, and Korea since 1200, this course investigates different aspects of political, economic, social, cultural, and intellectual revolution and transformation. The main topics include the following: cultural encounters between the East and West, imperialism (within the region and imposed from abroad), modernity and political transformations, Japanese territorial aggression and the Pacific War, postwar societal and economic change, the growth of the metropolis, Asian diasporas, and the unique qualities of East Asian modernities. Prerequisite(s): EGL 101 Credits: 3
(3,0)

HIS 215 The World of Islam

An examination of the birth and development of Islam from its beginning to the present. Special emphasis will be placed on the inter-connection of Islam with Judaism and Christianity and the common basis of monotheism. Topics to be discussed include the Ottoman and Mogul Empires, trade and commerce, urbanization, intellectual movements and class formation in the Islamic world. Credits: 3
(3,0)

HIS 216 History of Central Asia: From Genghis to Borat

A study of the history, peoples, cultures, religions, customs, and contemporary politics of Central Asia (Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan, and Turkmenistan), as well as the relationship between the region and its neighbors China, Russia, Turkey, and Iran. Credits: 3
(3,0)

HIS 217 From Constantine to Columbus: Western Civilization in the Middle Ages

This course will examine the development of the major cultural, social, and political movements and institutions of Western Civilization in the period before Columbus. Through both lecture and discussion formats, students will examine the preservation of Greek and Roman learning; Christian civilization and its relation with Islamic culture; the rise of cities, international trade and national capitalism; European learning and the emergence of the university; the rise of the nation-state and the origins of secularism. By the end of the course, students will be able to identify the roots and explain the development of cultural, social, and political institutions that are unique to the Western world. Credits: 3
(3,0)

HIS 219 Topics in History

A treatment of diverse topics, chosen by the Department of History, Economics, and Politics for their long-term impact and current historical importance. Credits: 3
(3,0)

HIS 222 Women in U.S. History

In what ways is the history of America a gendered history? Emphasizing the diversity of American women, the course situates the ways women have both shaped and been shaped by American society within the broader context of US history since 1865. Topics for investigation include the way different groups of women have experienced American sectionalism, the industrial revolution, urbanization, immigration, war, economic depression, cultural transformations and political change. We will be looking at both unity and diversity in American society, including the conflicts between women and a society based on patriarchy. Credits: 3
(3,0)

HIS 233 Comparative Religions and Cultures

A survey of religions of the East and the region of the Mediterranean, with discussion of their impact on the lives of individuals, and on cultures and other societies through the interrelationship of value systems. Credits: 3
(3,0)

HIS 240 History of Public Health Care and Medicine

An examination of the historical development of health and medical care in societies, both Western and non-Western, from ancient times to contemporary America. An emphasis on scientific and technological advancement, care of the ill, treatment of disease, and training of health care practitioners. Discussion of the values of each historical period and the relationships between social values, ethics, and prescribed health care. Credits: 3
(3,0)

HIS 243 Science and the West: From Newton to Present

This course traces the development of western society from the 16th century to present, focusing specifically on how scientific and technological developments have shaped modern western society and culture. The course proceeds chronologically from the scientific revolution of the 16th century to the present atomic age. Credits: 3
(3,0)

HIS 270 Genocide in the Twentieth Century

The course explores the history of ethnic, religious, and other forms of genocide during the twentieth century. The topics covered will include the Armenian massacres of 1915-1923, the Jewish Holocaust (Shoah), and the Roma Porajmos, as well more recent examples of genocide, including events in Cambodia, Bosnia, and Rwanda. Students will also critically assess other claims of genocide in world history, focusing on related issues such as ethnic cleansing, forced population transfers, etc. Prerequisite(s): Any 100-level or higher HIS or POL course Credits: 3
(3,0)

HIS 280 Caribbean History

This course explores the Caribbean Basin and places it in the historical context of the larger Atlantic World. The course begins with the arrival of Columbus in the Caribbean Islands and the conquest of the region by Spain. Subsequently, the course will explore the development of the sugar industry, the introduction of African slaves, and the arrival of other European powers in the region, including the French, English and Dutch. Additionally, this course will trace the development of Caribbean nations during the 19th century and their subsequent struggles for economic and political survival. The primary focus of the course will be on the larger islands of Cuba, Hispaniola (Haiti and the Dominican Republic), Jamaica, Cuba, and Puerto Rico, with a brief overview of the Lesser Antilles. Prerequisite(s): EGL 101 Credits: 3
(3,0)

HIS 281 Modern Latin America

This course covers the history of Latin America from the early 1800s until the early 2000s, beginning with the immediate causes and antecedents of the Independence Wars. Subsequent topics include: political and social conflicts in the post-independence period; the rise of the United States as an important economic and political player in the 19th century; industrialization and modernization of Latin America including participation of the region in the war effort during World War II. The course concludes with the political repercussions of the Cold War in the region, and its connection to the neoliberal economic policies established in the 1990s and early 2000s. Special attention will be paid to gender, class, race, and ethnicity, and their influence in the sociopolitical developments of Latin America. Prerequisite(s): EGL 101
Credits: 3
(3,0)

HIS 302 Civil War and Reconstruction

This course examines the primary themes of the Civil War and Reconstruction era through secondary and primary texts within a discussion format. Students are introduced to the origins of the sectional conflict during the antebellum period, the relevance of slavery to the conflict, the formation of southern nationalism and secession, the social, political and economic dimensions of the war effort, emancipation, Reconstruction and Redemption, and the legacy of the war. Prerequisite(s): HIS 121. Credits: 3
(3,0)

HIS 305 Culture and Technology in England

This course is a multidisciplinary examination of the ways in which technology affected everyday life during the Industrial Revolution in England. Covering the years 1750 to 1880, it examines the changes taking place in technology during the period; how these changes ultimately affected the workplace, the home, and the community and how novelists of the period felt about these changes. Note: Students completing this course may not receive credit for HUM 305 or SOC 305. Prerequisite(s): EGL 102 and One social science course or HIS 114 and HIS 115. Credits: 3
(3,0)

HIS 306 Transformation of America

A detailed study of the technological, economic, social, political, ideological and cultural transition of America from a rural, agrarian republic to a complex, industrialized, urban nation in the period from 1820 - 1920. This interdisciplinary course uses primary and secondary material to examine the effect of technology and urbanization on American life. A multi-cultural and cross-gender perspective will provide focus. Note: Students completing this course may not receive credit for EGL 306. Prerequisite(s): EGL 101 Credits: 3
(3,0)

HIS 307 Germany in the Modern Age

Examines the scientific, technological, political, and cultural development of modern Germany since the Industrial Revolution. Special emphasis to be placed on the interaction of technological developments and their impact on culture, society, and politics from 1815 to the present. Prerequisite(s): Any 100-level or higher HIS course.
Credits: 3
(3,0)

HIS 310 Technology and Society Russia-1917-Present

This course examines the connections between industrialization, culture, society, and politics in the Soviet Union and post-Soviet Russia. Topics of discussion include the development of Russian communism, collectivization, the Cold War, ethnicity and religion, and post-Soviet politics and culture. Prerequisite(s): Any 100-level or higher HIS course.
Credits: 3
(3,0)

HIS 311 China Since 1840

This course is a survey of the major political, social, intellectual, and cultural developments in China from the First Opium War to the present. Using primary texts (historical documents) and other scholarly resources, this course investigates different aspects of China's various "revolutions" (political, social, cultural, and intellectual). The main topics include the encounter between East and West, the transition from an empire to a nation-state, the New Culture Movement, as well as the making of a new vernacular language, the growth of the metropolis, and the various facets of Chinese modernity. Prerequisite(s): Any 100-level or higher HIS course Credits: 3
(3,0)

HIS 312 Latin American Popular Culture in the 20th Century

This course will explore mass mediated popular culture developed in Latin America within the last century. Cultural industries (i.e. music, television, etc.) are a significant export to the international market from countries like Mexico, Brazil, and Argentina. The class will discuss the different definitions of popular culture and analyze the impact of mass media on such definitions. The class will also examine a variety of cultural productions, including music (i.e. tango, salsa, and reggaeton), cinema, comic books, and telenovelas (Latin American soap operas). Prerequisite(s): Any 100-level or higher HIS course. Credits: 3
(3,0)

HIS 314 History of Modern Mexico

This course will examine Mexican history from the Porfiriato period (1876-1910) until the 2000 electoral defeat of the PRI (Partido Revolucionario Institucional). We will begin by studying how the aggressive modernization campaign of dictator Porfirio Diaz created the deep inequality that eventually led to the Mexican Revolution of 1910. The Revolution was (and is) a crucial moment in Mexican history. This course will analyze its main players and the social, political, and ideological legacies of the conflict. Students will investigate the post-revolutionary period and the one party authoritarian state that dominated the political and social life of the country for over half a century. Prerequisite(s): Any 200-level HIS, POL, or GEO course
Credits: 3
(3,0)

HIS 315 Imperialism: A Modern History

The rise and fall of empires is fundamental to world history. Beginning with the First Opium War and concluding with East Timor's independence from Portugal, this course explores how Europe's maritime empires (Britain, France, Spain, Netherlands, etc.) and continental imperial states (Russia, Austria, and Turkey) acquired, maintained, and ultimately lost their vast colonial possessions in the Americas, Europe, Africa, Asia, and Oceania. Using cross-disciplinary approaches, the connections between imperialism and commercial, technological, and industrial advancement will be explored through analysis of various forms of imperialism, including political, economic, and cultural, as well as its discourses and practices. Related issues such as power, hegemony, capitalism, consumerism, and decolonization will also be examined. The course content may focus on a particular area of the globe (e.g., East Asia, the Middle East, or Latin America) or a particular theme associated with imperialism (e.g., gender, migration, identity, etc.). Prerequisite(s): Any 100-level or higher HIS course
Credits: 3
(3,0)

HIS 317 Irish History

The study of Irish history with a view toward understanding the development of the Irish nation focused upon matters political, legal, religious, and military in nature. Prerequisite(s): Any 100-level or higher HIS course. Credits: 3
(3,0)

HIS 318 Israel: A History of the Jewish State

This course provides a comprehensive history of the modern state of Israel. Beginning with Zionism and the settlement of Jews in Ottoman Palestine, we will explore the complex and troubled history of the country up to the present day. Special focus will be placed on the Palestinian issue, the Arab-Israeli conflict, terrorism and counterterrorism, and geopolitics in the Middle East. In addition to the history and politics, we will also explore culture, society, and economics in contemporary Israel. Prerequisite(s): Any 100-level or higher HIS or POL course. Credits: 3
(3,0)

HIS 319 Special Topics in History

A treatment of diverse topics, chose by the department for their current historical import. The course will require extensive reading and writing. Depending on the topic, travel students should check with the department before registering for this course. Prerequisite(s): Any 100 level or higher HIS course. Credits: 3
(3,0)

HIS 320 Europe Since the Industrial Revolution

This course examines European history from the period of the Industrial Revolution to the present. Special focus will be placed on how scientific and technological developments impacted politics, society, and culture in Europe and the West more generally. The histories of individual European nation-states will be discussed, as well as major revolutions, periods of intense social change, and the two world wars. Prerequisite(s): Any 100-level or higher HIS course. Credits: 3
(3,0)

HIS 322 American History through Film

This history course explores the relationship between historical interpretation and representation through feature films and historical writing. Students analyze key themes, myths, and issues in the American experience by analyzing and contrasting cinematic constructions with written historical texts. The themes studied in this class include the frontier West and rugged individualism, the immigrant experience, the American Dream and assimilation cultural conflict and conquest, war and democratic freedom technological progress and morality, youth and rebellion, power and personality, race and equality, and social change, class and intolerance. Prerequisite(s): HIS 121 or HIS 122 or HIS 125 or Approval of department Chair. Credits: 3
(3,0)

HIS 323 Contemporary America

Depicts America's responses to the Cold War, violence, and military aggression, the emergence of Third World countries, the economic and political impact of rising expectations, the problems of the city and the suburbs, and the quest for social justice. Prerequisite(s): Any 100-level or higher HIS course. Credits: 3
(3,0)

HIS 324 Roots of Black Americans

This course examines the primary themes and topics in African-American History from 1600 to the present. It will analyze the roles of African-America's past by emphasizing the connections between social, political, and economic patterns, trends, and developments, and as such, will integrate and situate African-American History into the larger exploration of the history of the nation. The course will focus on the forced migration of Africans during the middle passage, the development of racial slavery, the origins and evolution of racism, the emergence of plantation society, the implications of the American revolution for slavery and equality, the formation of the abolitionist movement and the proslavery defense, antebellum slave culture and consciousness, the Civil War and emancipation, reconstruction the legalization of segregation, institutional resistance and African-American community, the new deal and political realignment, the civil rights movement and its fragmentation. Prerequisite(s): Any 100-level or higher course in HIS Credits: 3
(3,0)

HIS 325 America and the Vietnam War

An examination of American involvement in the Vietnam conflict from its origins in the Cold War to its legacies today. It will adopt a multidisciplinary approach and use a variety of mediums, integrating history, literature, and film and utilizing lectures, guest speakers, and discussions. Particular attention will be given to cultural origins and effects of the War. Prerequisite(s): Any 100-level or higher course in HIS Credits: 3
(3,0)

HIS 330 Oral History

What happens to our memories after we are gone? Oral history is one way to preserve memories. Oral histories are one of the most important tools in the historian's trade. Sometimes an oral history is the only record we have of an event or an entire people, which means the oral historian has a special responsibility. This is a hands-on course, which requires that students successfully complete an online Human Research Participants Training program and learn about theories of memory as they prepare for, conduct, and preserve an oral interview. Prerequusitie(s): Junior Status Credits: 3
(3,0)

HIS 331 History of New York State

This course will examine the development of New York State from its Native American, Dutch, and British colonial origins until today. The course provides an overview and in- depth discussion of the state's history and evolution as part of the United States, its founding ideas and institutions, and how it emerged as the Empire State we know today. In particular, the course will examine the following themes: political parties, ideology, and conflict; race, ethnicity and immigration; the economy, labor, and entrepreneurship; war and society. Prerequisite(s): HIS 121 or HIS 122 or HIS 125 Credits: 3
(3,0)

HIS 332 American Military History

American Military History is a multidimensional survey of the evolution of American Military organization, traditions methods from the colonial era to the onset of asymmetrical warfare in the Middle East. The course will present and analyze the key military events, leaders and strategists, including their influence on, and influence by, political considerations, global interests, public opinion as well as technological and economic factors. Prerequisite(s): HIS 121 or HIS 122 or HIS 125 Credits: 3
(3,0)

HIS 333 The 1960's in America

This course examines the people, events and issues of the era through a thematic approach within a larger chronological framework and focuses on domestic social, cultural and political developments. Because the 1960s contained so many seemingly disparate topics and issues, the class will emphasize the connections between and across a broad variety of subjects and disciplines. Topics include the seeds of change during the 1950's; the triumph and breakdown of postwar liberalism; insurgent political and social movements, including the civil rights movement, feminism, antiwar protest, and the New Left; the counterculture; the sexual revolution; drug culture; technology; music; and the legacy of the Sixties. Prerequisite(s): Any 100-level or higher HIS course. Credits: 3
(3,0)

HIS 334 The History of New York City

This course examines the origins of New York City as a small Dutch settlement known as New Amsterdam through its incarnation as a mercantile British colony, its growth as a commercial and later industrial metropolis, its emergence as a center of capital and modernity, and its ascendancy along with its decline and subsequent resurgence as a center of global capitalism during the 20th and 21st centuries. The course focuses on the social history of New York City, though it explores cultural, political, technological and economic developments and issues that defined its evolution. As such, the course topics include the influences of ethnicity and race on the city, the definitions, contestations and uses of social spaces, the social lives and roles of upper, middle and lower classes, the lore and intrigue of the larger than life personalities and infamous incidents in shaping the City's history, and the legendary conflicts over urban planning, use and design. Prerequisite(s): Any 100-level or higher HIS or POL course. Credits: 3
(3,0)

HIS 335 Gender and Technology in Historical Perspectives

The purpose of this course is to provide an overview of the connections between gender roles and technology from comparative and historical perspectives. Studying the past in this way sheds light on key global issues today. How does technology shape feminine and masculine identities in the developed world? What happens to preconceived notions of gender relations and gender identities when the developed world and developing world come into contact? This course focuses on the interaction between technology and gender in the age of globalization and is intended to be interdisciplinary and may begin with a dash of sociology or anthropology, dissecting gender roles in our world today. It will also examine the historical connections between gender roles and technology specifically in the United States. At the discretion of the instructor, topics to investigate may include the function of gender and technology in European exploration, European imperialism, and U.S. expansion. Prerequisite(s): Any 100-level or higher HIS course. Credits: 3
(3,0)

HIS 341 Terrorism and the Modern World

This course traces the global impact of terror and terrorism since the first use of the term in 1795. Much of the course focuses on the use of political violence by non-state actors and revolutionary organizations operating both at a domestic and international level. We will compare and contrast the various "waves" of terror which have gripped the globe since the late 1800s and analyze the similarities and differences between groups such as the IRA, the Ku Klux Klan, and al Qaeda. We will also explore state-based terror, specifically the use of fear, surveillance, and the secret police by various regimes in the 19th and 20th centuries. The role of media as an enabler of terrorism and terrorists will also be an important theme throughout the semester. Prerequisite(s): Any 100-level or higher HIS course or EGL 102. Credits: 3
(3,0)

HIS 342 The History of Television

Despite the recent emergence of new communication technologies, television arguably remains the most powerful and important form of communication today--a medium that influences and shapes our views of ourselves and our outlooks on the world. Television helps to bind us together through shared cultural distortions of our social experiences and relations and yet divides us over its short- and- long-term effects, both national and global. This course explores American culture during the post World War II period through an analysis of the history of television from its origins in radio to its future in digital media. It examines television's role in both reflecting and constituting American society through a variety of analytical approaches. The course topics include the structure, economics and dynamics of the television industry, the role of television within American democracy, the variety of television genres, television as a site of gender and racial identity formation, television's role in everyday life, and the medium's technological and social impacts. Prerequisite(s): Any 100-level or higher HIS or POL course. Credits: 3
(3,0)

HIS 343 Cinema and the City in East Asia

This is an interdisciplinary, seminar-style course that focuses on the history, culture, society, and everyday life in major urban centers in East Asia as depicted in film. This course draws on movies set in major cities, including Tokyo, Kyoto, Beijing, Shanghai, Hong Kong, Taipei, and Seoul. This course will address such topics as metropolis and modernity, women and gender, war and trauma, love and family relationships, modern and contemporary media, urban and rural contrasts, as well as perceptions of time, identity, and globalization. Prerequisite(s): Any 100-level or higher HIS course Credits: 3
(3,0)

HIS 360 Madness in the Modern Age

What is insanity? How do societies define pathology? How have categories such as gender, race, class, and sexuality shaped views of mental health? Answering these questions highlights why psychiatry is one of the most complex fields of medicine today. This course will explore the answers to these questions by examining the history of madness. By focusing on the evolving ways historians have written on the subject of madness, students will learn about issues of interpretation in the production of knowledge. Topics to be covered include madness in antiquity, the asylum movement, early efforts to identify mental illnesses as biochemical disorders, the origins of psychoanalysis, and the development of the Diagnostic and Statistical Manual (DSM). Prerequisite(s): Any 100-level or higher HIS course. Credits: 3
(3,0)

HIS 365 Public History

Why do so many Americans claim to hate history as a subject, yet spend their weekends visiting historic sites, watching historical films, performing genealogical research, or otherwise engaging with the past? This course will explore this question by introducing students to the field of public history. We will study the many ways that history is put to work in the world outside of the classroom. Topics to be covered include oral history, museum studies, walking tours, documentary films, websites, and social media. Prerequisite(s): Any 100- level or higher history course. Credits: 3
(3,0)

HORTICULTURE

HOR 100 Introduction to Plant Science

Success in advanced horticulture study requires an understanding of biological processes that operate at the molecular, cellular and organismal levels along with an appreciation for concepts of evolution and ecology. Topics addressed from the perspective of horticulture via lecture and laboratory participation include cell structure and metabolic activities such as respiration and photosynthesis. Students will be introduced to plant life cycles, basic chemistry, plant structure and physiology. Principles of genetics such as probability and Mendelian theory are also explored. Note: For students in the BS program this course serves as a prerequisite for BIO 192 Botany. Needs lab statement. Corequisite(s): HOR 100L Credits: 4
(3,2)

HOR 103 Herbaceous Plants I

Lecture and field study of the nomenclature, identification, ornamental attributes, cultural requirements and horticultural uses of annuals, summer display plants treated as annuals, spring and summer flowering bulbous plants used in gardens. Corequisite(s): HOR 103L (2,2)
Credits: 3
(2,2)

HOR 105 Landscape Gardening

Classroom studies in landscape appreciation. The elements and principles of art for creative design with application in lettering, freehand, and perspective drawing. Field application in garden improvement and operation. Credits: 3
(1,6)

HOR 106 Nursery Management

An introductory nursery course in the techniques and practices used in the commercial production of herbaceous perennials, ground covers, deciduous shrubs and trees, conifers, and broadleaved evergreens. Greenhouse and nursery procedures and practices. Credits: 3
(1,6)

HOR 110 Horticulture I

Instruction, orientation and field experience in the various phases of horticulture. Each week the explanation and demonstration of a new subject precedes the assignment to duties/ A rounded experience is the objective. Tools, techniques, and standards of workmanship are taught. Corequisite(s): HOR 110L Credits: 3
(2,3)

HOR 111 Horticulture II-Growth and Development of Cultivated Plants

The performance of landscape plants is influenced by myriad internal and external factors that may limit growth and survival. By understanding the scientific basis for these variables informed professionals can customize growth conditions to promote optimal yield. This course surveys the physiological processes that mitigate plant growth, senescence, dormancy, flowering and propagation. Lab exercises offer an interactive opportunity to investigate phenomena such as dormancy and photoperiod through experimentation, data collection and interpretation. The development of practical horticultural skills is also stressed. Prerequisite(s): HOR 110 Corequisite(s): HOR111L
Credits: 3
(2,2)

HOR 112 Soils: The Foundation of Life

Soils serve as the foundation for production in natural ecosystems and human systems. This exploration of soils addresses their geologic formation and properties (physical, chemical and biological). Special attention is given to the focused manipulation of soils to achieve optimum plant performance in landscape situations. Through classroom lecture and investigative laboratory exercises students will develop an appreciation for soil as a dynamic living system with broad implications for agriculture and general society. Corequisite(s): HOR 112L Credits: 3
(2,2)

HOR 115 Home Landscaping and Maintenance

A survey course designed for the homeowner who is interested in landscaping a home and learning how to maintain plant material. Topics covered include basic design principles, foundation plantings, and the use of flowers in the design; as well as the planting, pruning, fertilizing, and care of plant material used in the design. Credits: 2
(2,0)

HOR 116 Residential Horticulture and Landscape Design

A survey course designed as an elective for non-horticulture majors who are interested in landscaping their homes and learning how to maintain plant materials. Topics covered include basic design principles, foundation plantings, and the use of flowers in the design; as well as the planting, pruning and care of plant material used in the design.
Credits: 3
(2,2)

HOR 119 Insects and Diseases of Lawns and Gardens

The nature of insect and disease organisms will be studied. Pest control regulations, insecticides, fungicides, herbicides and equipment are discussed, including identification of common insects and disease of lawns, garden flowers, trees, and shrubs; also weeds and their control. Fruit and vegetable pests are also covered. Credits: 3
(3,0)

HOR 127 Horticultural Seminar

This course provides an overview of the industry, and major areas of development; it will provide an opportunity for students to hear from representatives of the industry. Students will be provided with the basis for an assessment of future career opportunities as well as the opportunity to evaluate their individual needs for continuing education. Credits: 1
(1,0)

HOR 129 Landscape Drafting

The introduction to landscape drafting; including the use of drafting equipment, drawing of landscape symbols, lettering techniques, and perspective drawing. Credits: 3
(2,2)

HOR 131 Landscape Drafting I

This course introduces students to essential drafting techniques and design fundamentals. The student develops graphic skills in landscape drafting and layout by utilizing drafting instruments to produce landscape plans. Students visualize space by learning plan view, orthographic projection, section/elevation design and are introduced to perspective design techniques. Emphasis is placed upon representation, definition, and expression of landscape concepts. Through lectures, workshops and in-class exercises, students explore techniques in black-and-white media. The goal is to learn how to develop drawing skills so that students can present proposed garden designs to clients. Each student is required to produce and present a final set of drawings suitable for presentation to a client or inclusion in a portfolio. This course has a laboratory component (HOR131L). Corequisite(s): HOR 131L Credits: 3
(2,2)

HOR 132 Horticulture Practice I

Application of classroom theory to practical situations in the field. Students are assigned to areas in the greenhouse, gardens, nursery, and plant collections to learn and practice the art and skills of gardening. Students are given supervision in the field by faculty and staff from the Horticulture Department. Credits: 1
(0,2)

HOR 133 Landscape Drafting II

This course continues the development of graphic skills introduced in Landscape Drafting I. Students discover how to visualize space by learning perspective design, orthographic projection and section elevation design. Prerequisite(s): HOR 131 Corequisite(s): HOR 133L Credits: 3
(2,2)

HOR 157 Introductory Floriculture

This course provides an introduction to floriculture and includes basic floral design, preparation, and care and identification of indoor flowering and foliage plants. Credits: 3
(2,2)

HOR 171 Landscape Techniques

This course has two distinct components. During the first half of the course students are introduced to the studio techniques of landscape design including drawing techniques such as perspective design, orthographic projection, section/elevation design, and rendering techniques. In the second half of the course, students are taught the field skills required to install, maintain and improve gardens and landscapes. These techniques are practiced during the laboratory section. Note: Students completing this course cannot receive credit for HOR 133. Prerequisite(s): HOR 131 Corequisite(s): HOR 171L Credits: 3
(1,4)

HOR 201 Arboriculture

This course introduces the theory and application of caring for ornamental trees. Students learn essential techniques including climbing, pruning, bracing, cabling, bark and cavity repair and fertilization. Demonstration techniques, pruning practices and tree climbing skills are also taught. Prerequisite(s): BIO 192 Corequisite(s): HOR 201L Credits: 3
(2,3)

HOR 203 Greenhouse Management I

A study of greenhouse structures used for commercial production of cut flower and pot plants crops. Various construction and maintenance techniques will be discussed, as well as greenhouse ventilation and cooling equipment. Practical application of greenhouse equipment will be discussed and applied to the production of crops. Corequisite(s): HOR 203L Credits: 3
(2,2)

HOR 204 Herbaceous Plants II

Lecture and field study of the nomenclature, identification, ornamental attributes, cultural requirements and horticultural uses of hardy perennial plants used in gardens including ferns, ornamental grasses, wild flowers, and herbs. Naturalistic woodland and rock gardens are introduced as well as the principles to design perennial borders. Corequisite(s): HOR 204L Credits: 3
(2,2)

HOR 207 Landscape Plans I

The course covers the theory and principles of applying landscape design skills for solving landscape problems. Students learn the design process from creating preliminary sketches to final presentation drawings including, plans, section elevations, freehand and perspective sketches. Prerequisite(s): HOR 133 Corequisite(s): HOR 270L Credits: 3
(1,4)

HOR 208 Nursery Production

This course explores commercial nursery stock production topics dealing with plant growth patterns and plant responses in relation to soils, water, fertility, planting techniques, spacing requirements and pruning. Additional topics covered include plant production cycles and rotations, and treatment for economy production. Emphasis will be placed on the commercial propagation of woody plants by sexual and asexual means. Credits: 4
(3,3)

HOR 209 Planting Plans I

The course emphasizes the various types of plans the landscape designer must know how to read and draw. Sight analysis, grading plans and planting designs will be covered in detail as they pertain to residential site projects. Additionally students will be shown how to incorporate illustrative visual media to accompany developed plans. Credits: 3
(1,6)

HOR 210 Horticulture Materials and the Environment

This course is intended to focus on various horticultural materials and practices that have an impact on the public and the environment. Discussion and classification of horticultural materials such as fertilizers, growth regulators, pesticides, etc., as well as their regulatory and safety measures will be explored throughout the course. Finally, alternative management practices which reduce the use of horticultural materials and cultural methods will be examined. The current computer software available in the library on various topics will also be utilized during the semester. Credits: 3
(3,0)

HOR 211 Woody Plants I

The Woody Plants courses give a picture primarily of the woody plants grown in nurseries for landscape purposes, and secondly of those found in arboretums, woodlands, and fields of Northeastern United States. Emphasis is on identification, culture, uses, flowers, and fruits, and ecological relationships. Several of the evergreens, broad and narrow leaf, as well as some of the deciduous trees and shrubs will be covered in this first study. Corequisite(s): 211L Credits: 3
(2,2)

HOR 212 Woody Plants II

A continuation of Woody Plants I covering additional evergreens, broad and narrow leaf, as well as deciduous plants, trees, shrubs, vines and ground covers. Corequisite(s): 212L Credits: 3
(2,2)

HOR 213 Arboriculture II

Advanced theory, practice and field studies of the arboriculture industry, including care and pruning of fruit plants, diagnosis of tree ills, shade tree evaluation, and power equipment. Business practices and organization including management, record keeping, estimating, customer relations, ethics and standards. Prefaced by an overview of the arborist industry. Credits: 3
(2,3)

HOR 214 Horticulture and Turfgrass Equipment

A study of the types of powered equipment used by the industry. Small engines and power sources are studied. Emphasis is placed on selection maintenance and operation of this equipment. Credits: 3
(2,2)

HOR 216 Greenhouse Management II

The study of florist crops, modern technical applications, and cultural requirements, as used in the production of cut flowers and pot plants in the floriculture industry. Credits: 3
(2,3)

HOR 218 Indoor Plants

A study of various plants that are suitable for indoor culture. Emphasis will be placed on identification, propagation, cultural requirements, ecological and aesthetic values. Corequisite(s): HOR 218L Credits: 3
(2,2)

HOR 219 Landscape Construction

This course examines techniques and material selection for designing and building steps, walks, walls, fences and other landscape features and structures. Basic skills in landscape surveying will also be emphasized. Corequisite(s): HOR 219L Credits: 3
(2,3)

HOR 220 Landscape Plans II

The theory and principles of landscape design are applied to selected landscape problems. Projects comprise preliminary sketches and final presentations in plan, elevation and perspective forms. Students prepare contract documents: plans, specifications and estimates in relationship to comprehensive landscape planning. Prerequisite(s): HOR 207 Corequisite(s): HOR 220L Credits: 3
(1,4)

HOR 223 Floral Design I- Basics

This course is intended for majors and non-majors who seek to develop basic skills of floral design. Students will be given lectures on the selection, availability and use of various materials used in floristry. Additionally, exercises are designed to focus on developing artistic techniques for creating floral works that have personal and commercial value. The structure and mechanics of floral pieces as well as principles, patterns and elements of design are stressed. Topics include traditional arrangements, special occasion arrangements, holiday arrangements as well as wedding and sympathy work. Students are expected to learn and identify the major flowers used in the trade. They will become familiar with the seasonality and availability of floral crops. A separate materials fee applies to cover cost of flowers and supplies used within coursework. Corequisite(s): HOR 223L Credits: 3
(1,4)

HOR 226 Floral Design II – Advanced

This course allows students with basic floral design knowledge and skills to continue their growth in the field. Through lectures and extensive lab exercises students explore the availability, proper selection and usage of diverse floristry materials. Projects focus on creating designs that have personal aesthetic appeal and functional value for specific purposes such as parties, weddings, funerals, Romantic/English Garden themes, European styles and tropical arrangements. Emphasis is placed on construction at an advanced level both mechanically and artistically. Students work individually and on group projects. Proficiency with florist business skills such as retail orders, cost analysis, client relationships, management of personnel and delivery services is also stressed. Prerequisite(s): HOR 223 with a grade of D or higher Corequisite(s): HOR 226L Credits: 3
(2,2)

HOR 227 Computer Landscape Graphic Design

The integrated graphics environment of the Macintosh computer combined with contemporary printing technology permits creation of sophisticated landscape graphics. Intended for the landscape design professional who needs an alternative method to present landscape plans or planting plans. This course covers the Macintosh hardware and software available to the landscape designer in order to maximize them to obtain professional results. Prerequisite(s): HOR 131 and HOR 133 Credits: 3
(1,4)

HOR 228 Current Horticultural Topics

Topics of current horticultural interest will be selected by the Horticulture Department and covered in depth. The topics to be covered will be announced in the course bulletin each semester the course is offered. Credits: 3
(3,0)

HOR 235 Tropical Plants in Costa Rica

By exploring one of the most beautiful and bio-diverse eco- systems of the world students will enrich their course study by having the unique opportunity to combine their understanding of tropical plants, gain the knowledge of their importance, and their role in sustaining the surrounding ecology. In addition, by being immersed in another culture and being engaged in cross- cultural comparisons, students will gain a better understanding of the connection between the physical environment and social environment. Prerequisite(s): Advisement and permission of department chair. Credits: 3
(2,2)

HOR 236 Drainage and Irrigation

The efficiencies of various drainage and irrigation concepts are discussed as they pertain to terrain, soils, climate, and plants being grown. Water sources, availability and storage are taught along with pressure requirements and means of conveyance. When to irrigate, how to irrigate and rates of application are discussed as they relate to soils and terrain. Prerequisite(s): Department approval or HOR 129. Credits: 3
(2,2)

HOR 238 Turfgrass Culture

A study of fine turfgrasses: soil, propagation, maintenance, growth requirements, and identification characteristics. Numerous materials, equipment, operations, usages, programs, and work procedures for proper and efficient management of specialized turfgrass areas, including golf courses and institutional and residential properties are studied. Prerequisite(s): HOR 112 Corequisite(s): HOR 238L Credits: 3
(2,2)

HOR 241 IPM for Landscape Pests

Discussion of alternative pest control programs with emphasis on their safety and environmental quality. Such programs will include: mechanical or physical removal of the pest, biological control such as introduction of beneficial organisms (both micro and macro organisms), and chemical control. Chemical control will be discussed in conjunction with other methods as a last resort. Credits: 3
(3,0)

HOR 248 Woody Plant Diagnostic Technology

This course will cover the techniques and procedures required for proper identification of woody plant problems. The student will be required to draw upon the cumulative educational experiences of the first three semesters in identifying insect disease, site and physiological problems affecting woody plants. The use of keys and integrated control measures will be stressed. Prerequisite(s): HOR 112, 211, 201 Corequisite(s): HOR 248L Credits: 3
(2,2)

HOR 250 Plant Propagation

A study of the fundamental techniques and the theory and principles involved in the production of horticultural plants by seeds, cuttings, layering, and grafting. Corequisite(s): HOR 250L Credits: 3
(2,2)

HOR 252 Ecology

The study of the relationships of organisms to their environment and to each other. Emphasis is on plant relationships. Field trips will be taken to various ecological plant communities. Credits: 3
(2,3)

HOR 255 Interior Landscaping

The course will concentrate on the design, installation and maintenance of interior plantings in both commercial and residential settings. Topics include principles of design, preparation of plans, interior horticultural practices, and cost estimating. Prerequisite(s): HOR 218 Credits: 3
(2,2)

HOR 265 Horticulture: Special Project (A)

This independent study course offers students experience in research and its application to the horticulture industry. Under the direction of a faculty member, students select a topic of interest within their area of specialization. The number of credits will be determined by the complexity of the program agreed upon by the student and the Department Chairperson. Credits: 1-3
(0,0,1 to 3)

HOR 266 Horticulture: Special Project (B)

This independent study course offers students experience in research and its application to the horticulture industry. Under the direction of a faculty member, students select a topic of interest within their area of specialization. The number of credits will be determined by the complexity of the program agreed upon by the student and the Department Chairperson.   Credits: 1 to 3
(0,0,3 to 9)

HOR 267 Horticulture: Special Project (C)

This independent study course offers students experience in research and its application to the horticulture industry. Under the direction of a faculty member, students select a topic of interest within their area of specialization. The number of credits will be determined by the complexity of the program agreed upon by the student and the Department Chairperson.   Credits: 1 to 3
(0,0,3 to 9)

HOR 268 Horticulture: Special Project (D)

This independent study course offers students experience in research and its application to the horticulture industry. Under the direction of a faculty member, students select a topic of interest within their area of specialization. The number of credits will be determined by the complexity of the program agreed upon by the student and the Department Chairperson.   Credits: 1 to 3
(0,0,3 to 9)

HOR 269 Horticulture: Special Project (E)

This independent study course offers students experience in research and its application to the horticulture industry. Under the direction of a faculty member, students select a topic of interest within their area of specialization. The number of credits will be determined by the complexity of the program agreed upon by the student and the Department Chairperson.   Credits: 1 to 3
(0,0,3 to 9)

HOR 271 Landscape Engineering Tech

This course will study landscape structures and landscape features with an emphasis on engineering principles and hands on applications. Topics will include: concrete construction, brick, bluestone and modular patios, wall construction, retaining wall engineering, pavings, walks, and drives, fence and gate construction, decorative pools, fountains, drainage structures, landscape lighting, pergolas arbors, gazebos. Labs will consist of engineering layout and construction of patios, decks, fences, etc. Prerequisite(s): HOR 171 Corequisite(s): HOT 271L
Credits: 2
(1,3,4)

HOR 275 Italian Gardens: Art and Nature

This course is held in conjunction with Florence University of the Arts during a three week summer semester in Italy. Participants have the opportunity to study and experience the rich history of Italian gardens, particularly those created during the Renaissance and Baroque ages, in and around Florence. Students become garden detectives and peel away the layers of garden additions, deletions, and restorations in order to understand and experience landscapes as they were first conceived and constructed in the 15th, 16th, and 17th centuries. The contemporary layout, artifacts, and plants within each garden are compared with historic accounts and illustrations depicting the original layout. The patrons, architects, and artists who created and contributed to each garden and the design theories they employed will be discussed "in situ" and through museum visitation. Credits: 3
(2,2)

HOR 290 Internship in Urban Horticulture & Design

An internship within the field of horticulture and landscape design provides students with valuable professional work experience in an appropriate industry setting. Feedback reporting maximizes the potential for reflection, personal and professional growth through discussion with faculty advisors and peer cohorts. This intensive applied learning opportunity supports and enhances classroom activities. Prerequisite(s): Completion of 50 credits with a GPA of 3.0 and/or permission of the Department chair. Credits: 3
(1,0,6)

HOR 310 Perennial Plant Management

This course is a practical field study addressing the horticultural management of herbaceous perennials plants grown within garden settings. As the growing season progresses, students will experience the growth cycle changes that occur to hardy, herbaceous, perennial plants. Students will learn the maintenance requirements that plant growth dictates and advancing senescence necessitates. Prerequisite(s): HOR 204 Corequisite(s): HOR 310L Credits: 2
(1,4)

HOR 311 Woody Plants III: Advanced Topics

This course supplements topics addressed in the core woody plant curriculum and expands in new directions. Contemporary topics will be discussed such as native vs. non-native plants, invasive plants and alternatives, xeriscaping and sustainable plant selection. It is hoped that students will hone their ability to select appropriate woody plant material for challenging landscape situations and become aware of contemporary issues in horticulture. Guest speakers, outdoor laboratory exercises and field trips will be organized to complement classroom instruction. Prerequisite(s): HOR 211 and HOR 212 Corequisite(s): HOR 311L Credits: 3
(2,2)

HOR 312 Selecting and Designing with Native Plants

The appropriate selection and use of native plants (herbaceous and woody species) balances aesthetic demands with environmental concerns and the needs of local flora and fauna. This course will first explore the meaning of "native" and the scientific basis for utilizing species indigenous to the New York City metropolitan area. We will then address plant selection in the context of specialized ecological communities and the design of landscapes with native plant material. Classroom instruction will be supplemented with visits by experts and trips to sites that illustrate course concepts. Prerequisite(s): HOR 110 Credits: 3
(3,0)

HOR 315 Plants and Society

Plants and their cultivation have been an integral part of human history and will continue to be in the future. Through an in depth look at crops, including ornamental, medicinal and agricultural species, the importance of plants will be examined. Students will learn the major crops of the world, the basic science behind plant breeding, agriculture and plant based pharmaceuticals as well as the importance and limitations of emerging technologies such as genetically modified plants. Prerequisite(s): HOR 111 and BIO 192 Credits: 3
(3,0)

HOR 320W Public Garden Management (Writing Intensive)

Students will be introduced to the range of operations that occur within botanic gardens, arboreta, and other public garden institutions, and will develop skills required to become effective managers of these living plant collections. Students will also form communication channels with public garden professions. Course requirements include a research project tailored to the student's career objectives. Following this course it is recommended students pursue a summer public garden internship. This is a writing-intensive course. Note: Students cannot get credit for HOR 320 and 320W; HOR 320W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the Ornamental Horticulture Department Prerequisite(s): HOR 110 or 111 and EGL 101 with a grade of C or higher Credits: 3
(2,2)

HOR 325 The Business of Horticulture

The horticulture and landscape industry presents unique business challenges. In this course students will apply horticultural theory to general principles of management, merchandising, advertising and sales as they explore settings within the green industry. Familiarity with these business aspects will allow students who complete the course to better exploit existing opportunities and launch new ventures. Traditional classroom instruction may be supplemented by site visits to horticulture enterprises and lectures delivered by accomplished industry professionals, including program alumni. Prerequisite(s): BUS 111 Credits: 3
(3,0)

HOR 330 Weed Science and Management

Discussion of the origin and history of weed science and weed control. Life cycle, growth and development, weed interference and competition with plants will also be explored. The course will also emphasize physical, cultural, biological and chemical control of weeds. Herbicides and their selectivity, performance and methods of application will also be discussed. Prerequisite(s): HOR 111 or HOR 110 Corequisite(s): HOR 330L Credits: 3
(2,2)

HOR 335 Premaculture

This course is an introduction to permaculture, the practice of designing systems modeled from ecological relationships that respect the land while serving its inhabitants. Topics to be addressed in this course include permaculture theory, systems-thinking, site assessment and analysis -- patterns of sun/shade, drainage, vegetation -- and innovative application techniques. Students apply these topics to a real design project and recommend appropriate permaculture applications such as perennial food production, soil regeneration and integrated water management. Prerequisite(s): HOR 110 and Junior level or permission of Department Chair Credits: 3
(3,0)

HOR 340 The Sustainable Garden

Healthy sustainable landscapes provide benefits to human functioning, health and well being. But just what is a "healthy landscape?" What are the major tenets of "Sustainability?" What does it mean to "Go Green?" In the Sustainable Garden course we will define, investigate and promote sustainable garden design, land development and management practices. We will investigate how to transform sites with and without buildings utilizing integrated sustainable principles. The course will provide students with tools to address increasingly urgent global concerns such as climate change, loss of biodiversity, and resource depletion. It will have value for those who design, construct, operate and maintain landscapes. Prerequisite(s): HOR 131 Corequisite(s): HOR 340L Credits: 3
(2,2)

HOR 345 Urban Planting Design

This course will address plant selection in the context of the design of landscapes in various settings: suburban and urban residential settings; commercial and adaptive reuse settings. We will address design principles and the use of plants for many situations such as foundation plantings, themed gardens, and challenging landscape settings. We will explore contemporary landscape design issues pertaining to native plants, plant communities and landscape restoration, and discuss the proper cultural and maintenance techniques for improving soils, and planting, fertilizing, irrigating, pruning and care of plant materials used in each design setting. Prerequisite(s): HOR 131 and Junior level or permission of department chair. Credits: 3
(3,0)

HOR 350 The Art History of Garden Design and Landscape Architecture

Gardens and cultivated landscapes are works of art whose development offers a historical snapshot of the societies and historical movements that shaped them. Studying the evolution of gardens, landscapes and urban spaces in Europe, Asia and North America allows us to interpret the history, art and cultures of these regions. This historical survey charts the designed landscape from pre-history to the present with an emphasis on the historical perspective, analytical skills and specialized vocabulary necessary to understand and describe gardens, landscapes and the artistic movements they reflect. Note: Students cannot get credit for HOR 350 and 350W; HOR 350W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the Ornamental Horticulture Department Prerequisite(s): EGL 101 with a grade of C or higher Credits: 3
(3,0)

HOR 360 Landscape Surveying Skills

This elective course is intended for Landscape Development and General Horticulture students who wish to develop skills in the use of basic surveying instruments such as tape, level and transit. These skills are used to record existing location of structures and ground form. Students will learn to use these methods for installation of new structures and alteration of landform. Conventional methods for recording notes and standard methods in mathematical procedures will be covered. Prerequisite(s): HOR 171 Corequisite(s): HOR 360L
Credits: 3
(2,3)

HOR 366 Special Topics in Horticulture

Topics of current interest in ornamental horticulture will be presented and covered in depth. Course material will vary semester to semester and reflect pressing issues and topics facing the field. Subject material will be announced prior to registration for the semester. Prerequisite(s): HOR 112 and HOR 111 Credits: 3
(3,0)

HOR 370 Landscape Professional Practices

This is a course about the student's future as a horticulturist, landscape designer, contractor, a business professional and a citizen. Students will learn the skills required to start and manage a professional practice in his/her chosen field. The basics of business structure, insurance, contracts, and business investment will be addressed. Students will produce a cohesive business plan that incorporates defining their marketplace, developing a communication strategy, and cash-flow planning. They will also learn how to put together a portfolio and make effective use of technology to leverage the efficiency of their existing or proposed practice. Prerequisite(s): HOR 207 Credits: 3
(3,0)

HOR 371 Landscape CAD I

This course is an introduction to computer aided design/ drafting. This course includes all the functions of AutoCad plus specific tools and solutions for professionals in the land development industry. This course will focus solely on two-dimensional aspects of AutoCad. Each student will acquire CAD experience from using the program at his or her own workstation. We will perform exercises to develop skills from file set-up to creating 2D drawings to plotting. Our goal in the class is to become comfortable, efficient and competent computer drafters. Each student is required to produce a landscape site plan. Prerequisite(s): HOR 207 Corequisite(s): HOR 371L Credits: 3
(1,4)

HOR 372 Site Engineering I

Landscape construction projects involve modification of the Earth's surface. This course teaches how to design, read and engineer landform. Students will be given an introduction to grading and surveying landscape contours. They will develop knowledge of grading around buildings and roads as well as grading for drainage. Prerequisite(s): HOR 131 Corequisite(s): HOR 372L Credits: 3
(2,3)

HOR 410 Plant Production Technology

This course is intended to study the commercial greenhouse and nursery production of cut flowers, flowering potted plants, and nursery stock. The physiological and flowering responses of plants to light, temperature, nutrients, and gases will be addressed. Plant identification, propagation, production, scheduling, finishing, and marketing for the economic production of greenhouse and nursery crops will be studied. Prerequisite(s): Department chair approval or HOR 250 Credits: 4
(3,2)

HOR 471 Landscape CAD II

This course is an advanced course in computer aided design/drafting. This course will focus on providing additional time developing skills introduced in Landscape CAD I, and introduce advanced three-dimensional aspects of AutoCad. Each student will acquire CAD experience from using the program at his or her own workstation. Each student is required to produce a comprehensive set of landscape construction plans. Prerequisite(s): HOR 371 Corequisite(s): HOR 471L
Credits: 3
(1,0,4)

HOR 472 Site Engineering II

Landscape plans require engineered drainage design, engineered irrigation design and lighting design. The course covers advanced grading design processes, storm water management principles and techniques using the hydrologic cycle, and designing advanced lighting systems to create beautiful night landscapes. Irrigation design will cover various types of irrigation for the landscape. Prerequisite(s): HOR 372 Corequisite(s): HOR 472L Credits: 3
(2,3)

HOR 474 Design Capstone Project

This course is the culmination of the Landscape Development design sequence. This capstone course integrates landscape design and site engineering design philosophies and methodologies into a comprehensive studio project. The intent of the course is to help the student to synthesize skills and knowledge learned in other courses to apply in real-life situations. This multidisciplinary project incorporates landscape design and site planning analysis, site engineering, construction, energy and sustainability, cost estimating and plant selection. Faculty directs the development of individually determined projects in response to defined objectives, critical commentary of advisory panels and periodic formal reviews. Students present their final project to the full faculty at the end of the semester. Prerequisite(s): Department approval or HOR 220, 371 and 372. Credits: 4
(2,4)

HOR 475 Horticulture Practicum

The Horticulture Practicum represents a culmination of the four-year general horticulture curriculum. Students engage in a focused project or a broad survey of an appropriate industry setting approved and supervised by a faculty mentor and, if applicable, an industry representative. Throughout the Practicum students will be challenged to synthesize course theory and skills, and apply them in a practical manner. Participants will reflect and report on their experiences to their supervisors and peers in both oral and written formats. Prerequisite(s): Department Chair approval. Students enrolled in HOR475 should have Senior Level status and substantial completion of the program.
Credits: 4
(2,4)

HEALTH STUDIES

HST 101 Current Issues in Health

This introductory, multidisciplinary course will provide the student with a broad background of information on current issues in health care. This course is designed to facilitate and enhance the professional growth of future health care providers. Topics will include common and emerging health problems, an examination of the health care delivery system, effective wellness behaviors and common ethical issues occurring in health care today. Credits: 3
(3,0,0)

HST 103 Currents Topics in Gerontology

This three credit elective course will provide an overview on a number of topics related to aging in today's society. Topics will include current theories on aging, the physiology of aging, psycho-social aspects of aging, health issues, end of life decision making, sexuality and spirituality in aging and social policies affecting the elderly in America today. Essential concepts related to the senior citizen will be examined from multiple view points, including that of the client, the family, the health care provider and the health care system. Credits: 3
(3,0)

HST 105 Medical Terminology

This course is the study of medical terminology. The focus is on prefixes, suffixes, word roots and their combining forms by an introduction to medical word building and the general structure of the body and its various body systems. Students will learn word construction, spelling, usage, comprehension, and phonetic 'sounds like' pronunciations as well as some common medical abbreviations. This course is just right for Health Studies students who are considering a career in dental hygiene, nursing, or medical technology. Credits: 3
(3,0)

HST 301 Health Care Organization

This is a survey course introducing the student to the concepts related to the organization of health care in the United States. Health care will be studied from a historical, political, economic and consumer perspective. Focus will include exploring the commonly used models of health care delivery and organization in the United States and selected other countries. Health Care in this country has undergone tremendous change and expansion since the turn of the last century. As we begin the next century many health care issues remain controversial and a top priority in the minds of many Americans. Access to adequate preventive and episodic health care, organ transplantation and gene therapy are just a few of the interesting topics that will be touched upon. NOTE: Students who take NUR300 cannot receive credit for HST301. NOTE: Students who take HST301 cannot receive credit for NUR300. Prerequisite(s): HST 101 or Permission of the Nursing Department. Credits: 3
(3,0)

HUMANITIES

HUM 305 Culture and Technology

This course is a multidisciplinary examination of the ways in which technology affected everyday life during the Industrial Revolution in England. Covering the years 1750 to 1880, it examines the changes taking place in technology during the period; how these changes ultimately affected the workplace, the home, and the community and how novelists of the period felt about these changes. Note: Students completing this course may not receive credit for HIS 305, SOC 305, or IDP 305. Prerequisite(s): One social science course and HIS 114 and HIS 115 and EGL 102. Credits: 3
(3,0)

HUM 317 Special Topics in the Humanities

This course enables students to explore intensely a major theme or period in the humanities. The subject for a particular semester will be announced prior to registration. Topics may include Historical and Contemporary Perspectives on China, Propaganda in Marketing and Advertising, among others. Short papers involving secondary sources will be required. Prerequisite(s): EGL 102 with a grade of C or higher
Credits: 3
(3,0)

HUM 332 Intercultural Communication

This course is designed to develop an understanding of how specific interpersonal techniques can facilitate effective intercultural communication encounters. Students will be exposed to the ways in which cultural differences affect intercultural communications. Obstacles to effective intercultural communication will be examined and techniques to overcome these will be explored and practiced.
Credits: 3
(3,0)

INDUSTRIAL TECHNOLOGY

IND 303 Planning and Controlling Operation

This course is an introduction to the concepts and techniques of sales and operations planning; managing inventory; master scheduling; material requirements planning production activity control; supply chain information system process mapping; JIT/Lean production; and Kanban systems. Case studies covering these topics will be included. Note: Students completing this course cannot receive credit for BUS 303. Prerequisite(s): BUS 109 Credits: 3
(3,0)

IND 306 Project and Contract Management

This course covers the processes encountered in choosing, planning, controlling and negotiating of projects and contracts in technologically-based firms. Topics include projects and contracts: feasibility; risk analysis; selection; portfolio optimization; cost estimation and controls; capital budgeting; performance relating to negotiation, adjustments, and benchmark standards; and awareness of an appreciation for ethical practices. Note: Students completing this course cannot receive credit for BUS 306. Prerequisite(s): BUS 109 Credits: 3
(3,0)

IND 308 Occupational Safety

This course introduces the fundamentals of occupational safety and examines potential accidents, which may occur in the modern work environment that employs complex materials, processes and technologies. We will review the history and safety legislation of the regulatory agency OSHA. Acquiring and analyzing hazard information, organizing and setting up occupational safety programs, accident causes, and their control and accident record keeping will be addressed. Credits: 3
(3,0)

IND 309 Security and Fire Protection Systems

Assessing a facility's need for and recommending as well as managing the design, procurement, installation, and operation of access intrusion detection, closed circuit television (CCTV), security lighting, fire alarms, and fire suppression systems; establishing policies, procedures, and practices for systems operations and maintenance, monitoring and evaluating systems performances; researching and assessing technical developments in the security and fire protection fields. Credits: 3
(3,0)

IND 310 Industrial Hygiene

This course introduces students to the fundamentals of industrial hygiene as well as to a recognition of health hazards in the facility environment. This course includes analysis of solvents, particulates, industrial dermatoses, industrial noises, ionizing and noniodizing radiation, temperature extremes, biological hazards, and indoor air quality issues. A study of methods with which to evaluate exposures to hazardous substances; a detailed analysis of control programs; and an examination of environmental protection acts and amendments are also included. Credits: 3
(3,0)

IND 315 Facilities Planning

This course is designed to introduce a comprehensive overview of the concepts and techniques to generate facility plans. The course includes the determination of the requirements for people, equipment, space, and material in the facility along with the evaluation, selection, preparation, presentation, implementation and maintenance of the facility plans. An overview of the components of a building structure, its envelope and related items are also discussed. Credits: 3
(3,0)

IND 316 Customer Relations and Quality

This course covers the basics of customer relations and quality in industry. The course includes discussion of quality management principles and standards as well as feedback techniques to measure and assure customer satisfaction. The American Customer Satisfaction Index, J.D. Power and Associates Reports, Malcolm Baldrige National Quality Award, and International Organization for Standardization (ISO) Automotive Quality System QS-9000 registration criteria will also be discussed. Note: Students completing this course cannot receive credit BUS 316. Prerequisite(s): BUS 300 Credits: 3
(3,0)

IND 317 Automotive Financing and Leasing

This course is designed to familiarize the student with the basic economic problems and principles that exist when a vehicle or other equipment is purchased or leased. Problems are centered around the cost of capital, capital budgeting and investment analysis. Also discussed are repayment schedules including amortized loans, refinancing and variable rate loans. Prerequisite(s): MTH 110 Credits: 3
(3,0)

IND 320 Fleet Management

This course is designed to provide students with a practical discussion and examination of the fleet management function, as well as how it relates to an organization. Included in the course are automotive specific computer applications such as service establishment management software. Also, the course will include discussions on business plans, fleet utilization and replacement, human resources, parts management, safety requirements and data services. This course will consist of presentations, case studies, and a review of management literature. Credits: 3
(3,0)

IND 400 Quality Techniques

This covers quality tools and techniques used in problem solving and decision making. Topics include: Pareto charts; cause and effects diagram; check sheets; histograms; scatter diagrams; quality function deployment; statistical process control; continuous improvement; Goldratt's theory of constraints; benchmarking; just-in time manufacturing; and implementing total quality. A written assignment will be required that integrates quality topics with problem solving and decision making tools and techniques. Note: Students completing this course may not receive credit for BUS 400 Prerequisite(s): BUS 240 and MTH 110 Credits: 3
(3,0)

IND 402 Facility Maintenance Management

This objective of this course is to present a comprehensive overview of the management, administration and control of a facilities maintenance department, including an overview of business and financial issues work order systems; prioritizing, planning and scheduling of maintenance, construction, custodial and grounds keeping work; the contract cycle and components. Prerequisite(s): BUS 300 Credits: 3
(3,0)

IND 405 HVAC Systems

This course covers design aspects of heating, ventilation and air conditioning systems, hydronic systems for commercial and residential applications. Design and selection of heating and cooling system components, boilers, air handling units, refrigeration systems, hydronic system components, terminal equipment, fans, pumps, compressed air properties and indoor air quality are also covered. Students are required to prepare term projects on heating and cooling load calculations for commercial and residential buildings. Prerequisite(s): MET 212, MET 230 and MET 314 Credits: 3
(3,0)

IND 406 Energy Management

This course covers a comprehensive study of various forms of energy generated from fossil fuels, alternative and renewable energy sources and their management. This course also covers life cycle cost of each type of energy system, energy conservation programs, smart building, load management, miscellaneous methods to increase the energy efficiency of a building, utility rate structures, reduction of energy demand and rebates. In addition, energy conservation will be covered with respect to its effect on indoor air quality and other environmental issues. Prerequisite(s): MET 212, MET 230 and MET 314 Credits: 3
(3,0)

IND 408 Automotive Business Management

This is a theory course developed to give the student an understanding of employment practices and opportunities in the automotive industry. Topics include: management principles and structures, tasks and duties of a service manager including interview techniques, performance evaluations, and financial operations of a service facility. The course will provide the student with an understanding of owner communications, shop capacity management, leadership effectiveness, organizational behavior, and promotional strategies. Course will include related problem solving activities, and final project. Prerequisite(s): Junior level status and BUS 300 Credits: 3
(3,0)

IND 410 Senior Project

Independent study of an Industrial Technology-related area of interest to both the student and a faculty member who shall act as Project Advisor. The project selected will utilize skills and knowledge acquired in previous Industrial Technology and related courses. Note: Students completing this course may not receive credit for BUS 410.
Prerequisite(s): BUS 409 or IND 409 Credits: 3
(1,6)

ITALIAN

ITA 121 Italian I (Elementary)

A beginning course in Italian emphasizing the gradual development of the four language skills: listening, speaking, reading and writing with stress on communicative competence and cultural awareness.
Credits: 3
(3,0)

ITA 122 Italian II (Elementary)

A continuation of Italian 121 emphasizing the gradual development of the four language skills: listening, speaking, reading and writing with stress on communicative competence and cultural awareness.
Prerequisite(s): ITA 121 Credits: 3
(3,0)

ITA 125 Italian for Business

This course will provide the development of oral proficiency used in daily communication within the business world, preparing the students both in technical vocabulary and situational usage. An introduction to specialized vocabulary in business and economics, as well as practice in writing business correspondence, will be included. Readings in management, marketing, advertising, etc. will be covered. Prerequisite(s): 2 or 3 years of High School Italian or ITA 121 Credits: 3
(3,0)

ITA 223 Italian III (Intermediate)

A continuation of ITA 122 for students who have had 3 or 4 years of high school Italian. This intermediate course further emphasizes the development of the four language skills: listening, speaking, reading, and writing with stress on communicative competence and cultural awareness. A literary and cultural reader will be introduced. Prerequisite(s): ITA 122 Credits: 3
(3,0)

ITA 224 Italian IV (Intermediate)

For those students who have taken ITA 223 or four or more years of high school Italian. This course emphasizes structural review, intensified practice in oral expression with increased emphasis on reading and writing skills. Continued attention will be given to contemporary Italian culture. Selections from Italian authors will be read. Prerequisite(s): ITA 223 Credits: 3
(3,0)

ITA 301 Italian V (Advanced)

An advanced conversation/composition course with intensive practice in oral and written Italian. Prepared discussions and writing assignments on selected cultural, historical and literary topics. Prerequisite(s): ITA 224 Credits: 3
(3,0)

ITA 302 Italian VI (Advanced)

A continuation of Italian V Advance with intensive practice in oral and written Italian. Prepared discussions and writing assignments on selected cultural, historical and literary topics. Prerequisite(s): ITA 301 Credits: 3
(3,0)

INTERACTION DESIGN

IXD 210 Typography for Interaction

This course will allow students to build technical and practical skills for understanding and effectively utilizing typography in a range of special applications including digital, environmental and immersive application. The course investigates typographic terminology, structures, and methods for creative successful interactive experiences. Students will develop a unified method for orchestrating typography into their visual vocabulary to create cohesive solutions that successfully communicate. Experimentation will be encouraged. Prerequisite(s): VIS 116, VIS 122 all with a grade of C+ or higher Credits: 3
(2,2)

IXD 212 Interaction Design I - Foundation

This course will introduce the basics of Interaction Design and the concepts and techniques necessary to develop and implement immersive, innovative experiences that inform and delight. Students will learn the rigorous process for the design of interactive solutions through research, planning, testing and iteration. Assignments will require the conception, planning and development of systems for various applications using lo-fidelity sketching techniques. Social Media, Usability and Usability testing, and Information Architecture will be covered. Class assignments will favor process and meaning over technology, limiting the use of digital tools to research and information gathering. Prerequisite(s): VIS 116, VIS 122 all with a grade of C+ or higher. Credits: 4
(2,4)

IXD 310 Interaction Design II-User Interaction

User Interaction will expand on the concepts and tools introduced in IXD-212 User Interaction I – Foundation with an emphasis on the concepts and principles of User Interaction design: effectiveness, efficiency and satisfaction. Usability, heuristics, user and task analysis, information architecture and graphical user interface design will be added to the student's design vocabulary. The formal use of the computer and digital tools will be introduced and emphasized. Prerequisite(s): IXD 212 with a grade of C+ or higher. Credits: 4
(2,4)

IXD 312 Research Strategies

In this course students will learn research methods commonly used in design research. They will model interaction by conducting qualitative and quantitative research of users behaviors, attitudes and expectations through online and in person user analysis, task analysis, observational studies, customer interviews, usability testing, and other processes and methodologies that facilitate research and discovery. Students will be expected to utilize storytelling techniques to solve design problems, establish personas, develop presentation skills, and support design solutions. Class assignments will favor process and meaning over technology. Prerequisite(s): PSY 101 Credits: 3
(2,2)

IXD 320 Interaction Design III – User Experience

This advanced interaction design course builds on skills covered in previous IXD courses and emphasizes user-centered design and research methods and practices used in experience modeling. Students will work in teams to study users in various settings and contexts utilizing interpretive methods of analysis to discover and create solutions for problems that emerge. Projects will emphasize research and usability testing of the needs, wants, and limitations of the end users of a product, service or process at each stage of the design process ensuring effective, efficient and satisfactory experiences. Prerequisite(s): IXD 310 with a grade of C+ or higher Corequisite(s): IXD 322 Credits: 4
(2,4)

IXD 322 Prototyping Tools

This course will provide students with an advanced and intensive exploration of prototyping tools. It is taken concurrently with IXD-320 Interaction Design III: User Experience. Various methods of prototyping will be used to understand, analyze, explore, and evaluate systems through the development process. Students will employ these methods to translate a concept into sketches through multiple iterations. Prototypes will be constructed using paper, pen, post-it, scissors, and non-graphical hand drawn and digital wireframes. Students will also learn to develop these concepts using various digital prototyping tools to create hi-fidelity prototypes that demonstrate an application in digital form. Prerequisite(s): IXD 310, BCS 240 with a grade of C+ or higher Corequisite(s): IXD 320 Credits: 3
(2,2)

IXD 330 Design for Social Change

In this course students will apply the skills they have learned in the IXD program to work collaboratively in identifying a social need and solving it through user-centered design. The class will work with a real world client to identify a project that addresses a social need, engages people and inspires positive change. Students will be expected to conduct design research including observational studies, customer interviews, usability testing, and other forms of research in establishing and addressing the social need. Prerequisite(s): SOC 122, IXD 212 with a grade of C+ or higher Credits: 3
(2,2)

IXD 410 Interaction Design IV – Advanced Interaction Design

In this course students will work collaboratively to execute projects that include advanced application of the skills developed during the previous semesters. Students will be expected to utilize the applicable conceptual, design, prototyping, storytelling and research skills in combination with typographic and visual design to complete advanced interaction design applications. Class assignments will focus on creating finished, portfolio-ready projects using the Interaction Design Association's definitions of interaction design categories including: Connecting: Facilitating communication between people and communities. Disrupting: Re-imagining completely an existing product or service by creating new behaviors, usages or markets. Empowering: Helping people to do things they otherwise couldn't do. Engaging: Capturing attention, creating delight and delivering meaning. Expressing: Enabling self-expression and/or creativity. Optimizing: Making daily activities more efficient. Prerequisite(s): IXD 320, IXD 322 both with a grade of C+ or higher Credits: 4
(2,4)

IXD 412 Special Topics Studio

This course offers instruction in special content areas within the field of interaction design. Areas of exploration may include topics such as: Content Strategy and Research, Advanced User Experience, Advanced Technologies, Interaction Design in Advertising, Design Thinking, Psychology of Design, Systems Design and the Cultural Significance of Social Media. Depending upon the topic and the instructor(s) discipline the class may be divided into 2 -3 modules with students focusing on a different topic or aspect of a topic in each module. The class will encourage total immersion in the subject(s) presented. Students will rely on the skills developed in past classes to complete rigorous and intensive research and prototyping in the creation of design artifacts. Prerequisite(s): IXD 320, IXD 322 both with a grade of C+ or higher Credits: 3
(2,2)

IXD 414 Design and Play Mechanics

Design and Play will explore the intersection of game theory and game mechanics to design interfaces, experiences and objects that encourage playful interactions and behavioral change in traditionally non-game contexts such as business and education. Concepts such as Gamification for education and business and identification of interaction models will be investigated. Interaction design as it relates to increasing user engagement by adding "fun" components will be explored in-depth. Prerequisite(s): IXD 320, IXD 322 both with a grade of C+ or higher Credits: 3
(2,2)

MECHANICAL ENGINEERING TECHNOLOGY

MET 104 Computer Aided Drafting and Design

This course introduces computer aided drafting and design (CADD) in 2D drafting and 3D solid modeling. Students will learn traditional drafting techniques, such as orthographic projection, dimensioning, and tolerancing, and apply their drafting skill though 2D CAD software. Students will also learn 3D solid modeling based on parametric constraints, dimensions and features such as extrude, revolve, sweep, loft, hole, fillet and shell. In addition, the course teaches students how to create assemblies and 2D engineering drawings from the existing 3D solids. Laboratory exercises will be assigned to the students for hands-on experience with the related topics. This course is equivalent to the combination of GPH103, GPH104, and MET211. Corequisite(s): MET 104L Credits: 3
(2,2)

MET 109 Computer Programming and Applications

This is an introductory course in a computer programming language. Programs are specifically written to be used in the areas of statics, strength of materials, machine design, heat transfer, and fluid mechanics. Applications of the theoretical concepts are covered in the required laboratory. Corequisite(s): MET 109L Credits: 2
(1,2)

MET 117 Manufacturing Process

The main purpose of this course is to introduce the mechanical engineering technology student to the principles and operation of mechanical equipment such as lathes, drill press, milling machines and measuring requirements and measuring instruments. Several manufacturing processes such as welding, powder metallurgy, sheet metal forming, extrusion, etc. are also covered. Individual laboratory projects will be assigned to each student to reinforce the topics covered in the theory. NOTE: Students completing this course may not receive credit for AET 218T. Corequisite(s): MET 117L Credits: 2
(1,3)

MET 127 Advanced Manufacturing Processes

This course is a continuation of MET 117. Topics emphasize the theory and operation of manual and numerically controlled milling machines and machining centers. Additional topics covered are the gear shaper, indexing head, point-to-point drilling and milling, and three axis measurement. Laboratory projects will be assigned to reinforce the topics covered in theory. Prerequisite(s): MET 117 Corequisite(s): MET 127L Credits: 2
(1,3)

MET 201 Statics

This is a basic course in statics. The main objective of this course is to provide student with a basic understanding of the principles of statics. Topics such as resultant of a force, equilibrium of forces, moments, couples, analysis of simple trusses, centroids, center of gravity, moments of inertia and friction are covered in this course. Applications of the theoretical concepts are covered in the required laboratory. Prerequisite(s): MTH 130 and PHY 135 Corequisite(s): MET 201L Credits: 3
(2,2)

MET 205W Material Science (Writing Intensive)

This is a theory and laboratory course designed to give students a basic understanding of crystal structures, effects of cold work and annealing on metal structures and properties, phase diagrams, heat treatment of steel, corrosion of materials, failure analysis of ferrous and non- ferrous alloys, ceramics, plastics and composite materials. Laboratory experiments are associated with the topics covered in the theory. Students will write technical reports throughout the semester as well as final presentations to help them communicate effectively in specific writing related to their fields. This is a writing-intensive course. Prerequisite(s): EGL 101 with a grade of C or higher Corequisite(s): MET 205L Note: Students cannot get credit for MET 205 and 205W; MET 205W can be used to fulfill the writing intensive requirement, which is offered at the discretion of the Automotive & Mechanical Engineering Technology Department. Credits: 3
(2,0)

MET 206 Strength of Materials

This is a basic course in Strength of Materials. The main objective of this course is to introduce the concepts of stress, strain, torsion, bending and shear stresses. It also covers shear moment diagrams, deformations and modes of failure, Mohr's Circle; also included are topics in thermal and combined stresses. Laboratory demonstration of experiments and testing equipment are emphasized. Prerequisite(s): MET 201 or CON 106 Corequisite(s): MET 206L Credits: 3
(2,2)

MET 207 Tool Design

This course covers the fundamentals of tool design, with main focus on the principles of jigs and fixtures design. Topics covered include: General tool design, economics of tool design, materials used for tooling, work holding principles, jig design, fixture design, die design and operation, power presses, metal cutting, forming and drawing. Students will be using Computer Aided Design (CAD) software packages in designing different jigs and fixtures. Applications of the theoretical concepts and hands-on 3D CAD modeling are covered in the required laboratory. Prerequisite(s): MET104, MET127 Corequisite(s): MET 207L Credits: 3
(2,2)

MET 211 Advanced Computer Graphics

This is a laboratory course which introduces advanced topics in computer graphics including advanced dimensioning and tolerancing, 3-D wire frame, surface of revolution, solids, in computer graphics. Laboratory exercises will be assigned to the students for hands-on experience with the related topics. Prerequisite(s): GPH 103 and GPH 104 Credits: 1
(0,2)

MET 212 Applied Fluid Mechanics

The objective of this course is to represent the basic principles of fluid mechanics and the application of those principles to practical, applied problems. Primary emphasis is on the topics of fluid statics, flow of fluids in piping systems, flow measurement, and forces developed by fluids in motion. The course is directed to anyone in a technical field where the ability to apply the principles of fluid mechanics is desirable. Prerequisite(s): MTH 130, PHY 136 Credits: 3
(3,0)

MET 215 Special Topics in Engineering

This course will cover various applications of basic principles of statics, strength of materials, electrical principles, introduction to basic principles of electromechanical control systems and introduction to Robotics and automation systems. Students will work on independent projects related to various engineering concepts by utilizing various CAD software. This course can be used as a Technical Elective for Mechanical Engineering Technology and Manufacturing Engineering Technology B.S. Degree programs. Credits: 3
(3,0)

MET 230 Electrical Principles

This hands-on and theory course introduces electrical principles to Mechanical and Manufacturing Engineering Technology and Facility Management Technology students. Emphasis will be on power systems that utilize alternating current. Course topics include resistive and R-L-C series and parallel circuits, instrumentation, single and three-phase circuits that contain motors, transformers, starters and low voltage controls, and an overview of electronic applications to mechanical systems. Electrical logic (ladder) diagrams will be stressed throughout the semester. Laboratory assignments will reinforce the topics covered by theory through relevant experiments performed by the student and will include the writing of laboratory reports. Prerequisite(s): MTH 130 and PHY 136 Corequisite(s): MET 230L Credits: 3
(2,2)

MET 251 Numerical Control

In this course, the fundamental skills and knowledge of the IBM System/360 APT Numerical Control programming language are developed. Students will be required to write and run APT programs on the Department's numerical control system. Students will also process programs to produce EIA-NC code suitable for machine control. Prerequisite(s): MET 104, MET 127 and MTH 129 Credits: 3
(3,0)

MET 252 Quality Control (Metrology)

This course covers different aspects of dimensional metrology principles, calibrations, and practices. Common measurement tools and methods used in the industry will be introduced. Topics covered include: Gage Blocks, Fixed Gages, Height Gages, Plug Gages, Dial Gages, Angle Measurements, Pneumatic Gages, Surface Metrology, Optical Metrology, Load Cells Calibration, Introduction to GD&T, and Gage R&R Analysis. Laboratory exercises covered include: Gage Blocks Stacking and Calibration, Dial Gages & Plug Gages in Inspection, Micrometer Calibration, Transducers & Load Cell Calibration, Surface Roughness measurements and analysis, Angle measurements using Sign Bar, Gear Inspection, Air Gage Inspection, Inspection of Flatness, Straightness, Perpendicularity. Prerequisite(s): MET 104, MET 127 Corequisite(s): MET 252L Credits: 3
(2,2)

MET 300 Computer Aided Engineering CAE

This course will introduce the technology students to the important subject of engineering design and finite element analysis. The course material builds on the students' previous experience in computer graphics and strength of materials and introduces them to the modern concepts of concurrent engineering and design for manufacturability. The students will learn how to import their graphic drawings from the Computer Aided Design (CAD) to the Computer Aided Engineering (CAE) software and apply the loads and appropriate boundary condition. The application of CAE in linear stress and deformation analysis of mechanical systems and fluid mechanics will be the essential part of this course. Computer simulations will be performed during the required laboratory section using the CAD and finite element simulation software. Prerequisite(s): MET 206 and MET 104 and MET 109 Corequisite(s): MET 300L Credits: 3
(2,2)

MET 304 Computer Integrated Manufacturing (CIM)

In this course, the concepts of Computer Integrated Manufacturing (CIM) as applied to the areas of Computer Aided Design (CAD), Design Office Automation, Computer Aided Engineering (CAE), Management Materials Tracking with Bar Code Technology and Network Communication will be studied. Students will gain hands-on experience using the colleges computer system and software. Laboratory projects will cover real world concepts. Prerequisite(s): MET 104 Credits: 3
(2,2)

MET 305 Tooling for Composites

This is a theory and laboratory course covering an introduction to advanced composite materials and design of production tools and parts. Some included topics are: mold designs, open mold process, resin transfer molding, vacuum infusion process, compression molding, filament winding, and inspection and repair. Design assignments will be given to students which require utilizing the computer laboratories to use the 3-dimensional (3D) parametric design software packages. Prerequisite(s): MET 207 Corequisite(s): MET 305L Credits: 3
(2,2)

MET 307 Electromechanical Control Sys

This course covers the fundamentals and physical principles of electro-pneumatic and hydraulic control circuits. Pneumatic and hydraulic components such as directional control valves, flow control valves, and pressure control valves will be covered. The course also covers programmable logic controller (PLC) using Allen-Bradley MicroLogix controller. Students will be designing and troubleshooting PLC controlled hydraulic and electro-pneumatic circuits in the laboratory. Automation Studio software will be used in designing and simulation of control circuits. Prerequisite: MET 230 Corequisite: MET 307L Credits: 3
(2,2)

MET 308 Machine and Product Design

This course introduces students to the fundamentals of machine component design. Subjects covered include safety factors, theories of failure, shaft design, roller bearings, gear design, spring design, pressure vessels, and fasteners. The laboratory section includes analysis of stresses (principal stresses and maximum shear stresses), applications of plane stress (combined loadings, pressure vessels, and beams), design of shafts and shaft components, and design of springs. Prerequisite(s): MET 206 Corequisite(s): MET 308L Credits: 3
(2,2)

MET 314 Applied Thermodynamics

This course lays the groundwork for the student's future studies in the area of thermal design, encompassing the fields of power, heating, air conditioning and refrigeration. Topics covered include basics such as the first and second laws of thermodynamics, equations of state for gases and vapors, and psychometrics. Building on this foundation, thermodynamic processes and cycles will be introduced, including the Carnot, and Vapor Compression refrigeration cycles. Thermal equipment such as boilers, turbines, evaporators, condensers, compressors and heat exchangers will be analyzed. Prerequisite(s): PHY 136 and MTH 130 Credits: 3
(3,0)

MET 351 Computer Aided Manufacturing (CAM)

This course provides the student with experience in computer graphics NC programming techniques. Students will generate 2-D and 3-D parts on CAM software and analyze the tool paths required for various types of machining operations. Programs will be processed to produce EIA-NC code which will then be loaded into a CNC machine to manufacture a part. Students will also create 2-D and 3-D files on CAD software and learn how to export the CAD files to CAM software. Prerequisite(s): MET 127 Credits: 3
(3,0)

MET 405 Dynamics

This course covers rectilinear motion of particles (position, velocity, and acceleration), such as uniform rectilinear motion, uniformly accelerated rectilinear motion, and introduction to motion of several particles. In addition, an introduction to curvilinear motion of particles, as well as kinetics of particles: Newton's second law of motion, principles of work and energy and applications, impulse and momentum theory, and applications of the above topics to engineering problems will be covered in this course. Prerequisite(s): MET 201 and MTH 236 Credits: 3
(3,0)

MET 406 Electronic Packaging Applications

This is a theory and laboratory course covering an introduction to electronic packaging application with the printed circuit board design of analog and digital schematics. Also included in the course is application of thermal, radio frequency, electromagnetic, shock and vibration effects. Laboratory will reinforce the topics covered in theory through projects using the College's computer graphics equipment. Prerequisite(s): MET 207 Corequisite(s): MET 406L Credits: 3
(2,2)

MET 409 Statistical Quality Control

Students will be introduced to techniques for determining the quality of mass manufactured products by means of statistical analysis. State of-the-art computers and software will be used to generate and analyze process control charts and histograms, plus continuous variables, and attribute control charts. Tests for special causes and capability analysis of a process will be addressed. Prediction of the probable percentage defective in a monitored process as well as the producer's and customer's risk will be emphasized. Students will learn to define the Acceptance Quality Level (AQL) and the military sampling plans (MIL Standard). Applications of the theoretical concepts are covered in the required laboratory. Prerequisite(s): MET 109, MET 252, MTH 110 Corequisite(s): MET 409L   Credits: 3
(2,2)

MET 410W Senior Project-Writing Intensive

This is a capstone course required for Manufacturing and Mechanical Engineering Technology BS programs. This course is offered as an independent investigation of a technical problem by the student under the supervision of a faculty member. The selected project topic utilizes skills and knowledge acquired earlier in the Mechanical Engineering Technology or Manufacturing Engineering Technology programs to solve a wide range of engineering problems. At the completion of the project, an oral presentation and a written report are required. This is a writing-intensive course.
Note: Students cannot get credit for MET410 and 410W; MET 410W can be used to fulfill the writing intensive requirement.   Note: Offered at the discretion of the Automotive & Mechanical Engineering Technology Department. Prerequisite(s): Senior Status and Approval of Department Chair and EGL 101 with a grade of C or better. Credits: 3
(3,0)

MET 411 Applied Heat Transfer

This course will provide students with a basic understanding of problems of heat transfer. The fundamental laws of conduction, convection, and radiation are studied using analytical and graphical methods. Graphical and empirical solutions and applications to industrial problems will also be covered plus special topics in heat exchangers, heat pipes, and industrial furnaces. Prerequisite(s): MET 212, MTH 236 or MTH 151 Credits: 3
(3,0)

MET 415 Robotics

Students will be introduced to robotics from both a theoretical and practical aspect. Different types of robots and their applications in industry will be covered. Financial management and return on investment of the robotics applications will be discussed. Additional topics included are motion transmission and control of robot mechanisms, robot programming, the use of robots in an integrated manufacturing cell, and practical uses of the robot vision system. Hands-on experience on actual working robots and the application of the theory will be provided in the laboratory. Prerequisite: MET 307 Corequisite(s): MET 415L Credits: 3
(2,2)

MET 417 Modern Manufacturing Systems

This course is designed to enrich the student's practical knowledge with hands-on experience of full-scale modern manufacturing systems and actual industrial machining centers. This course is composed of theory and laboratory parts; the laboratory part of the course will be held in the Institute for Manufacturing Research (IMR) of the college which offers the state of the art manufacturing systems and techniques. The students will work in teams to design 3-D mechanical parts for manufacturability and practice the concepts of concurrent engineering and teamwork. Prerequisite(s): MET 351 Credits: 3
(2,2)

MODERN LANGUAGES

MLG 100 Introduction to World Languages

This course will introduce students to the wide variety of languages across the globe. What are language "families"? How are they similar? How are they different? How and why do languages change over time? How do different languages express thought and emotion through words and sentence structure? The relationship of a particular language to history, geography, politics and society will be emphasized throughout this course, with the help of a user-friendly companion website. Credits: 3
(3,0)

MLG 201 Italian Food, Culture, and History

This course analyzes the history of Italian food and its connections to historic events and cultural changes that took place in the most representative Italian cities and regions from the Middle Ages through the present. The Italian cities and historical periods analyzed are selected to provide a broad historical and social perspective that aim to be both a history of Italian food and a history of Italy through its food. Prerequisite(s): EGL 102 Credits: 3
(3,0)

MLG 300 International Cinema

Selected international films will be viewed, analyzed, and discussed in terms of their historical, social, political, and economic context as well as for their aesthetic value. Readings, lectures, and class discussions are organized to teach coherency in reading filmic works. Prerequisite(s): EGL 102 Credits: 3
(3,0)

MLG 301 Italian Cinema (In English)

Representative Italian films, from the post-war and Neorealism to the present, will be viewed, analyzed and discussed. Films are selected to provide a broad historical and social perspective as seen through the artistic vision of individual directors. The course will be conducted in English and all films have English subtitles. Prerequisite(s): EGL 102 Credits: 3
(3,0)

MLG 302 Spanish and Latin American Cinema

In this course, representative Spanish and Latin American movies that cover periods from Romanticism to contemporary times will be analyzed, viewed and discussed. Films will be chosen to discuss social, philosophical, political and identity problems as well as its interpretation according to the artistic vision and directors' achievements and goals. Theory and history of film genres of Spain and Latin America cinema will be studied. The course will be conducted in English and all movies have English subtitles. Prerequisite(s): EGL 102 Credits: 3
(3,0)

MLG 303 French Cinema (In English)

Representative French films from the lyrical traditional cinema to the New Wave of the sixties and to the new humanism of the present, will be viewed, analyzed and discussed. Films are selected to provide a broad historical, ideological and social perspective as seen through the eyes of individual directors. The course will be conducted in English and all films have English subtitles. Prerequisite(s): EGL 102 Credits: 3
(3,0)

MLG 304 French Culture and Civilization

An examination of contemporary France and its political, economic and social development. French cultural life and institutions in France will also be considered. This course may not be used to satisfy the foreign language proficiency requirement. Prerequisite(s): EGL 102 Credits: 3
(3,0)

MLG 305 Hispanic and Latin American Culture and Civilization

Civilization course: Provides a general perspective on the formation of the Latin American Culture through the centuries, with special emphasis on Spanish America. In parallel form, historical and cultural evolution of the New World and the Iberian Peninsula will be studied, from their beginnings up to the present. Among other aspects, the course will give special attention to the rich multicultural heritage which has been maintained in Latin America through the centuries, as well as its achievements in Art and Literature. Prerequisite(s): EGL 102 Credits: 3
(3,0)

MLG 306 Italian Culture and Civilization

An examination of contemporary Italy and its political, economic and social development. Italian cultural life and institutions in Italy will also be considered. This course may not be used to satisfy the foreign language proficiency requirements. Prerequisite(s): EGL 102 Credits: 3
(3,0)

MLG 307 French and Francophone Fiction and Film

This course will explore the relationship between literary works and their film adaptations in France and all over the French-speaking world. Selections will be read from novels, short stories, and poems, and major literary movements will be discussed. Students will analyze how literary images and themes are translated onto the big screen. Topics include the French heritage novel, the North African Arab/ French experience, the West African and Caribbean Negritude Movements, and French-Canadian literature and film. All readings and films in English translation. Prerequisite(s): EGL 102 Credits: 3
(3,0)

MLG 308 Arabic Culture and Civilization

This course examines Arabic culture and civilization through an analysis of historical, educational, social and climatic factors. The course will focus on issues arising out of intra-cultural and intercultural communication with today's economic and socio-political currents focusing on American and Arab relations. Prerequisite(s): EGL 102 Credits: 3
(3,0)

MLG 309 Arabic Cinema

This course examines a diverse body of motion pictures produced in the Arab world. Through films, critical readings and in class discussion, students will acquire and develop an understanding of Arabic culture and a great appreciation for the art history of Arab Cinema from across the 22 Arab nations. Prerequisite(s): EGL 102 Credits: 3
(3,0)

MLG 310 Latin American Women Writers

This course focuses on the works of major Latin-American women writers from the 17th to the 20th century. We will analyze poems, short stories and novels and how women have been portrayed in literature. The theoretical approach to this class will be based on contemporary feminist critics. We will study the works of the first 17th century Mexican feminist writer, The Nun, Sor Juana Ines De La Cruz, as well as the works of Elena Poniatowska, Julia Alvarez and Laura Ezquivel among others. Note: Students completing this course may not receive credit for SPA 310. Prerequisite(s): EGL 102 Credits: 3
(3,0)

MLG 311 Italian American Experiences

"Italian American Experiences" is an introduction to the experiences of people that created a unique and distinctive ethnic culture. The course begins with fundamental Italian heritage and examines the role of immigration and assimilation in a new world as Italian culture combined with the American experience to form the Italian-American culture. Italian-American studies offer students an opportunity to survey development in history, literature, media, art, and sociology. It also provides students with an in-depth exploration of the role ethnicity plays in what it means to be an Italian-American. Prerequisite(s): EGL 102 Credits: 3
(3,0)

MLG 312 Contemporary Latin American Short Stories

An introduction to different literary movements reflected in Latin American Short Stories in translation during the 20th Century. The emphasis will be the lyrical basis of the realistic, surrealistic and supernatural elements in the stories of Latin American Writers. Modern women writers' esthetics and poetic sensitivity as well as humor and sarcasm will be included in both the observation of individual psychology and tales of the absurd. Summarizing, and using Anderson Imbert's three basic definitions, the focus of this course will be: a) reality (realism); b) the supernatural (literature of the fantastic); c) the strange (magic realism). Note: Students completing this course cannot receive credit for SPA 312. Prerequisite(s): EGL 102 Credits: 3
(3,0)

MLG 313 Science, Literature, and Film in the Hispanic World

This course takes an integrated vision of reality in which the sciences and technologies, together with the humanities, take active part in the sociocultural system. This course synthesizes two supposedly antagonistic systems: the humanities and the sciences, and creates a communication between humanists and scientists. The course traces how the Hispanic world represented scientific activities in history and examines the interplay between sciences and humanities through Hispanic literature and film. Prerequisite(s): EGL 102 Credits: 3
(3,0)

MLG 314 Hispanic Fiction to Film

Fiction like film is a narrative storytelling art form. In this class students will study the adaption of written, fictional works and their correspondent films. Students will also study the narrative devices, techniques and formal properties used to tell a story that are particular to film but not found in literature, such as camera angle, camera distance, editing, cross-cutting, montage, framing, and camera movement. This course will take a critical approach to examining the narrative language utilized by fiction and film with the objective of developing a more critical eye for interpreting both mediums. Prerequisite(s): EGL 102 Credits: 3
(3,0)

MLG 315 Art, Culture and Civilization of Spain

Study of Spain, a multicultural and multilingual nation, not as a homogeneous entity but rather as a heterogeneous tapestry of various culture and languages. The corpus of cultural texts studied will be derived from the realms of literature, film, architecture, music and the visual arts. They will be analyzed within their socio- historical context as well as their aesthetic value. Note: Students completing this course cannot receive credit for SPA 315. Prerequisite(s): EGL 102 Credits: 3
(3,0)

MLG 316 French Fables and Folktales

This course will examine the literary tradition of the fable, the folktale, the fairy tale, the myth, and the legend in France throughout the centuries. Starting with the period of King Clovis I in the late 400s A.D. and ending with 20th century folklore, we will delve into the nature of these short stories, asking a variety of questions. Who is the intended audience? Are there different versions of the same tale, and why? What are the differences between oral tradition and written tradition? How are these French stories represented in other nations' literature, art and film? Finally, we will briefly chart the rich tradition of Cajun and Creole folklore of present-day South Louisiana, as well as that of French Canada and Haiti. Prerequisite(s): EGL 102 Credits: 3
(3,0)

MLG 317 The Arab-American Experience

This course will examine the assimilation of Arab immigrants within the United States and their unique contribution in creating a rich multicultural society. The course will allow students to learn about the Arab-American community through history, literature and sociology by using creative media tools such as art, music, films and documentaries. In addition, the course will examine political and social stereotypes of Arab-Americans as portrayed in current events. Prerequisite(s): EGL 102 Credits: 3
(3,0)

MLG 318 Italy: From Text to Film

This course will introduce the student to key topics within Italian culture as explored through Italian cinema and literature. Students will analyze narrative devices that tell a story, from the use of various styles of prose in written works to camera angles, editing techniques, and music in film. Through in-class readings of textual and cinematic expressions, including their theoretical background, students will learn to articulate both literary and cinematic criticism. Prerequisite(s): EGL 102 Credits: 3
(3,0)

MLG 320 Latino Writers in the U.S.

The development of Latino literature and culture in the United States, with emphasis on the 20th century. Major writings of Mexican, Cuban, Dominican Republican, Puerto Rican and other Latinos will be analyzed in relation to each group's particular experience and its relation to main stream society. Particular attention given to how gender, race, ethnicity, and class interaction affects the formation of the diverse cultural experience of the U.S. Latino. This course will be taught in English. Prerequisite(s): EGL 102 Credits: 3
(3,0)

MLG 321 Chinese Culture and Civilization

This course covers the development of Chinese civilization from Neolithic times to the present. It examines both the evolution and the continuities of this ancient culture, including aspects of philosophy, religion and ritual, social life, literature, and art. Prerequisite(s): EGL 102 Credits: 3
(3,0)

MLG 322 The Latin American Novel

This course focuses on the major works of Latin American writers and their contribution to the literary world. Relevant novels from the 18th to the 20th century literary movements will be analyzed, including topics such as Colonialism, Romanticism, Magic Realism will be analyzed. Several Nobel Prize winners like Gabriel Garcia Marquez, Mario Vargas Llosa and Miguel Angel Asturias will be included, as well as renowned women writers Laura Restrepo, Elena Garro, and Elena Poniatowska among others will be studied. Prerequisite(s): EGL 102 Credits: 3
(3,0)

MEDICAL LABORATORY TECHNOLOGY

MLT 105 Medical Laboratory Techniques

This course introduces the professional and technical responsibilities of medical laboratory professionals. Topics include phlebotomy, medical terminology, and professional topics such as legal and ethical issues, communication, hospital and laboratory organization, and regulation of educational programs, laboratory facilities, and licensure and certification of laboratory professionals. In the laboratory, phlebotomy techniques are practiced and the routine testing performed in the main areas of laboratory science (Microbiology, Hematology/Coagulation, Immunohematology, Immunology/Serology, Chemistry, and Urinalysis) are explored. Corequisite: MLT 105L Credits: 2
(1,2)

MLT 223 Hematology

The theory component of this course focuses on hematopoiesis and the formed elements of blood under normal and abnormal conditions. The theory and practice of the blood count as a diagnostic tool is presented. In the laboratory setting, technical skills in routine hematology procedures, hemostasis and thrombosis are developed.   Automated instruments are used for evaluation of blood specimens. Finger puncture and venipuncture are utilized to obtain specimens for study by manual and automated procedures. The significance of quality control is emphasized and normal and abnormal findings are related to a quality control program. Prerequisite(s): MLT 105, BIO 130 both with a grade of C or higher Corequisite: MLT 223L Credits: 4
(3,3)

MLT 227 Immunology and Serology

The theory component of this course includes the study of the body's immune system, the clinical testing methods used to evaluate immune system function, and the disease processes that are diagnosed through the use of serological methods. The chemical properties and physiological behavior of antigens, immunoglobulins, and complement are considered in detail along with the cellular interactions necessary for proper function of the immune system. The laboratory component of the course focuses on the performance and interpretation of serological diagnostic procedures for a variety of immune disorders and infectious diseases.   Prerequisite(s): MLT 105, BIO 130, CHM 152 all with a grade of C or higher. Corequisite: MLT 227L   Credits: 4
(3,2)

MLT 236 Histological Techniques

This course introduces the basic histological techniques involved in the processing of histology specimens in the anatomic pathology laboratory. The techniques involved in fixation, processing/embedding, microtomy, and staining of laboratory specimens are included. The course is designed as an online theory section accompanied by a ten day full time clinical internship at an off campus affiliated pathology laboratory. Students are responsible for their own transportation to the clinical location. Prerequisite(s): MLT 105 and BIO 130 and (BIO 166 or BIO 171) all with a grade of C or higher. Credits: 1
(0,0,3)

MLT 244 Clinical Practice

A study of routine urinalysis, including renal physiology in normal and abnormal states, with a focus on physical, biochemical, and microscopic findings. Laboratory testing of body fluids is also discussed, including cerebrospinal, synovial, serous, seminal, and amniotic fluids as well as sweat and fecal analysis. Methods and automation in the laboratory are introduced. Topics in special clinical chemistry including endocrinology, therapeutic drug monitoring, and toxicology are also included as part of the course. The required laboratory portion of the course allows for technical development of skills in both body fluids and urinalysis and is configured as a simulated clinical laboratory during the second half of the semester to familiarize the students with the work flow of a typical laboratory setting. Processing of patient specimens, quality assurance, quality control, and communication skills are stressed during the simulated laboratory experience. Prerequisite(s): MLT 223 with a grade of C or higher Corequisite(s): MLT 244L Credits: 3
(2,3)

MLT 257 Clinical Microbiology I

This course discusses the medically important yeasts and fungi, protozoa and metazoa. In addition, the major groups of bacteria that are emphasized include the Mycobacteria, Rickettsia, Chlamydia and similar organisms. Clinically important human viruses are also covered. Antibiotic testing and treatment of these groups of organisms is included. The laboratory emphasis is on the identification of the protozoa, metazoa, yeast and, fungi. The acid fast stain and specimen concentration for mycobacteria are also performed. In addition, the laboratory covers standard microbiology techniques related to safety in the clinical microbiology laboratory, basic light microscopy, and aseptic technique. Prerequisite(s): MLT 105 with a grade of C or higher Corequisite(s): MLT 257L Credits: 3
(2,3)

MLT 258 Clinical Microbiology II Theory

The principles of general microbiology including cell structure and function, antibiotic action, and microbial growth are discussed. The role of the clinically important bacteria in infectious disease will be explored. The lecture emphasizes the Staphylococci, Streptococci, Neisseria, Enterobacteriaceae, Pseudomonas (nonfermenters), Anaerobes, Hemophilus, Brucella, Bordetella, Francisella, Pasteurella, Corynebacterium, Listeria, Erysipelothrix, Bacillus, and miscellaneous bacteria such as the Spirochetes and Spirals. The course emphasizes the identification of microorganisms through biochemical and serological procedures. The major groups covered in the laboratory include the Staphylococci, Enterobacteacieae, Pseudomonas, Anaerobes, and Hemophilus. Each student will receive multiple unknown bacteria to identify. Prerequisite(s): MLT 257 with a grade of C or higher Corequisite(s): MLT 258L Credits: 4
(3,3)

MLT 281 Practicum in Immunohematology

Students practice clinical skills in Immunohematology (Blood Bank) through a ten day clinical internship at an off campus affiliated clinical laboratory under the guidance of clinical laboratory personnel. The clinical coordinators at the affiliated sites will evaluate students for both technical proficiency and professional behavior demonstrated during the internship. Students are responsible for their own transportation to the clinical location. Prerequisite(s): MLT 228 with a grade of C or higher Credits: 1
(0,3)

MLT 282 Practicum in Clinical Chemistry and Serology

Students practice clinical skills in Clinical Chemistry and Serology through a ten day clinical internship at an off campus affiliated clinical laboratory under the guidance of clinical laboratory personnel. The clinical coordinators at the affiliated sites will evaluate students for both technical proficiency and professional behavior demonstrated during the internship. Students are responsible for their own transportation to the clinical location. Prerequisite(s): MLT 227 and 244 both with a grade of C or higher Credits: 1
(0,3)

MLT 283 Practicum in Hematology and Urinalysis

Students practice clinical skills in Hematology and Urinalysis at local affiliated clinical laboratories under the guidance of clinical laboratory personnel. They are evaluated by the person in charge of their internship for both technical proficiency and professional behavioral characteristics. Prerequisite(s): MLT 223 and 244 both with a grade of C or higher Credits: 1
(0,3)

MLT 284 Practicum in Clinical Microbiology

Students practice clinical skills in Microbiology through a ten day full time clinical internship at an off campus affiliated clinical laboratory under the guidance of clinical laboratory personnel. The clinical coordinators at the affiliated sites will evaluate students for both technical proficiency and professional behavior demonstrated during the internship. Students are responsible for their own transportation to the clinical location. Prerequisite(s): MLT 257 and 258 both with a grade of C or higher Credits: 1
(0,3)

MLT 320 Hematology I

The theory component of this course focuses on hematopoiesis and the formed elements of blood under normal and abnormal conditions. The development and function of erythrocytes and leukocytes, the pathophysiology of hematology-related disorders, and the laboratory investigation that confirms the presence of benign and malignant disorders will be discussed. The theory and practice of the complete blood count as a diagnostic tool will be emphasized. In the laboratory setting, principles of automation and technical skills in routine hematology procedures will be developed. Peripheral smears will be reviewed to study the morphology of the cellular components in the blood. Students will apply quality practices, and use both manual and automated technologies. Quality control and patient results will be interpreted, and abnormal results will be correlated with hematological disorders. Venipuncture will be utilized to obtain specimens for study. Prerequisite(s): MLT 105, BIO 130 both with a grade of C or higher Corequisite(s): MLT 320L Credits: 4
(3,3)

MLT 325W Laboratory Management and Informatics (Writing Intensive)

This course presents the principles and practices of quality management in the clinical laboratory, including laboratory administration, supervision, financial and human resource management, safety and problem solving. Regulatory agencies responsible for monitoring laboratory practices will be discussed. Topics will include quality assurance and quality control, implementation of new test methods, equipment evaluation and selection proficiency testing, laboratory inspection procedures, selection, validation and utilization of laboratory information services specific to clinical and research laboratories. Each student will be required to submit a research topic related to clinical laboratory management and informatics. This is a writing intensive course.   Note: Students cannot get credit for MLT 325 and 325W; MLT 325W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the Medical Laboratory Technology Department Prerequisite(s): MTH 110 and EGL 101 both with a grade of C or higher Credits: 3
(3,0)

MLT 330 Immunohematology I

Blood banking theory and practice are integrated in this course which provides the foundation for a two course sequence. Topics covered include blood group genetics, blood group characteristics, antigen-antibody reactions and routine pre-transfusion testing. Identification of unexpected antibodies, compatibility and related problem solving strategies are introduced. Perinatal issues and automation in transfusion practices are covered. The required laboratory component of this course emphasizes the development and proficiency of technologist level technical skills that are required for practice in a transfusion medicine facility. Note: the laboratory course, MLT 330L is a part of your grade for this course. Prerequisite: MLT 227, with a grade of C or higher Corequisite: MLT 330L Credits: 4
(3,3)

MLT 340 Clinical Chemistry I

This course covers the biochemical analysis of body fluids, with the main focus on serum/plasma constituents. There is an emphasis on the principles of method, analytical procedures, and correlation of data with both abnormal and normal physiological processes for a broad spectrum of available chemistry laboratory tests. The major topics covered in both the laboratory and lecture include carbohydrates, lipids, proteins, enzymes, cardiac function, hepatic function, non-protein nitrogenous components, renal function, electrolytes, and acid base equilibrium. Case studies will be used to correlate test results with patient diagnoses, leading to an understanding of the interrelationship between the various laboratory tests performed and the assessment of the patient in health and disease states. Chemical analyses are performed using manual techniques in the required laboratory portion of the course. Development of technical skills, interpretation and monitoring of quality control, as well as interpretation of patient results are emphasized during the laboratory. Prerequisite(s): BIO 160, CHM 152, CHM 153, and MTH 110 all with a grade of C or higher   Credits: 4
(3,3)

MLT 350 Clinical Microbiology I

This course discusses the medically important yeasts and fungi, protozoa and metazoa. Identification of medically important arthropods will also be discussed. Discussion of the Rickettsiaceae and Anaplasmataceae will be included in this course. Antibiotic testing and treatment of these groups of organisms is included. The laboratory emphasis is on the identification of the protozoa, metazoa, arthropods, yeast and, fungi. Staining and culture techniques for identification of these organisms will be discussed and/or performed. In addition, the laboratory covers standard microbiology techniques related to safety in the clinical microbiology laboratory, basic light microscopy, and aseptic technique. Prerequisite(s): BIO 130 and MLT 105 both with a grade of C or higher Corequisite(s): MLT 350L Credits: 4
(3,3)

MLT 351 Clinical Microbiology II

The principles of general microbiology including host/pathogen interactions, antibiotic action, and microbial growth are discussed. The role of the clinically important bacteria in infectious disease will be explored. The lecture emphasizes the Staphylococci, Streptococci, Neisseria, Enterobacteriaceae, Pseudomonas and other non-fermenters, Anaerobes, Haemophilus, HACEK organisms, Brucella, Bordetella, Francisella, Pasteurella, Corynebacterium, Listeria, Erysipelothrix, Bacillus, and the Aerobic Actinomycetes. The course emphasizes the identification of microorganisms through biochemical and serological procedures. Automation in the clinical microbiology lab will be discussed. The major groups covered in the laboratory include the Staphylococci, Streptococcus, Enterococcus, Enterobacteriaceae, Pseudomonas and other non-fermenting gram negative rods, Gram positive rods, Anaerobes, and Haemophilus. Each student will receive multiple unknown bacteria to identify. Gram stain and acid fast staining will be performed. Prerequisite(s): MLT 350 with a grade of C or higher Corequisite(s): MLT 351L Credits: 4
(3,3)

MLT 420 Hematology II

This course is a continuation of Hematology I that covers advanced hematology principles and techniques, as well as new topics in the areas of coagulation and body fluids. Routine urinalysis, including renal physiology, in normal and abnormal states with a focus on physical, biochemical, and microscopic findings will be included, as will laboratory analysis of cerebrospinal, synovial, serous, seminal, amniotic, sweat, and fecal specimens. Primary and secondary hemostasis, fibrinolysis, and coagulation-related disorders will be presented, with a focus on the effects of anticoagulant therapy. The required laboratory portion of the course allows for technical development of skills in body fluid analysis, urinalysis, and coagulation studies. A case study style theoretical approach will accompany the continued practice of hematology methods in the lab portion of this course, encouraging problem solving in the diagnosis of hematological disorders. Manual and automated technologies will be incorporated for the processing of patient specimens and quality control. Quality assurance and communication skills will also be emphasized. Prerequisite(s): MLT 320 with a grade of C or higher Corequisite(s): MLT 420L Credits: 4
(3,0)

MLT 421 Molecular Pathology

This course will provide the student with an overview of the applications of DNA analysis in the diagnostic clinical laboratory. Specific examples of the use of molecular techniques will be included in the areas of oncology, hematology, infectious disease, histocompatibility, coagulation and identification. Specimen collection and handling will be discussed as well as the specific methodology used for each application. New applications will be introduced to the course as they are developed and implemented in clinical laboratory settings. Prerequisite(s): BIO 441 with a grade of C or higher Credits: 3
(3,0)

MLT 423 Advanced Hematology

This course presents advanced hematology principles and techniques in preparation for practice in the clinical laboratory setting. A case study theoretical approach and laboratory experiences that facilitate the identification of abnormal cellular elements, including the pathophysiology of hematology related disorders, will be emphasized. In the laboratory, students will apply quality practices and use both manual and automated technologies to correlate specimen results with hematology disorders. Prerequisite(s): MLT 223 with a grade of C or higher Corequisite(s): 423L Credits: 3
(2,2)

MLT 425 Laboratory Research and Education

This course presents the principles and practices of applied research design, education, and training for clinical laboratory technologists. Research designs, sampling methodologies, collection and analysis of data in the research process will be discussed. Topics related to education include the domains and levels of learning, constructing behavioral objectives, learning outcomes, and clinical training strategies. Strategies for effective communication in the clinical laboratory workplace will also be discussed. Each student will be required to design an applied research study on a topic related to clinical laboratory science. Prerequisite(s): MLT 325 with a grade of C or higher Credits: 3
(3,0)

MLT 428 Advanced Immunohematology

This course presents advanced immunohematology principles and techniques in preparation for practice in the clinical blood bank laboratory. Case study analysis will be used to formulate approaches to solving complex serologic problems. Lecture topics to be discussed include blood group systems, antibody identification techniques, blood donor collection practices, compatibility and investigation of transfusion reactions. Blood bank quality management, ethical and legal issues and alternative technologies in blood banking will be covered. In the laboratory setting, students will use both manual and automated techniques to perform pretransfusion testing and resolve serologic problems. Proficiency in routine blood bank procedures is emphasized. Prerequisite(s): MLT 228 with a grade of C or higher Corequisite(s): MLT 428L Credits: 3
(2,2)

MLT 430 Immunohematology II

This course presents advanced immunohematology principles and techniques in preparation for practice in the clinical blood bank laboratory. Case study analysis will be used to formulate approaches to solving complex serologic problems. Topics to be addressed include blood group systems, antibody identification techniques, blood donor collection practices, compatibility and investigation of adverse transfusion reactions. Blood bank quality management, ethical and legal issues and alternative technologies in blood banking will be discussed. This course is the culmination of a two course sequence. Prerequisite: MLT 330, with a grade of C or higher. Credits: 3
(3,0)

MLT 440 Clinical Chemistry II

In this course analytical techniques, instrumentation, and automation in the clinical chemistry laboratory will be introduced. Students will study quality assurance, quality control, and troubleshooting techniques. Laboratory-related mathematics will be covered (dilutions, preparing solutions, conversions). Lecture topics will also include vitamins, endocrinology (general, thyroid, adrenal, hypothalamus, and pituitary), therapeutic drug monitoring, and toxicology. Cumulative case studies will be utilized to review Clinical Chemistry topics.   Prerequisite(s): MLT 340T with a grade of C or higher Credits: 2
(2,0)

MLT 443 Clinical Pathophysiology

The theoretical concepts introduced in the Clinical Chemistry, Immunology/Serology, and Clinical Practice courses will be expanded through a problem solving approach. Case studies will be used to correlate test results with patient diagnoses, leading to an understanding of the interrelationship between the various areas of laboratory testing and the assessment of the patient in health and disease. The use of clinical correlation as a quality assurance tool to detect patient testing errors will be included. New concepts introduced will include enzyme kinetics, therapeutic drug monitoring and toxicology, vitamins, porphyrins, endocrinology, and genetic disorders. Prerequisite(s): MLT 227 and 244 both with a grade of C or higher Credits: 3
(3,0)

MLT 450 Clinical Microbiology II

This course will use a problem solving approach to build upon the theoretical and technical concepts introduced in Clinical Microbiology I and II. A body's system approach and case studies will be used to correlate laboratory and clinical information related to infectious diseases and their diagnosis. Laboratory operations specific to clinical microbiology will be covered including the role of the clinical microbiology laboratory in infection prevention and public health. Discussion of recovery and identification of the Mycobacteria, Spirochetes, Chlamydia, Mycoplasma and Ureaplasma will be included. Clinically important viruses and basic viral culture techniques will be discussed along with advanced concepts in antimicrobial testing and resistance detection. Emerging pathogens will be introduced. Prerequisite(s): MLT 350, MLT 351 both with a grade of C or higher
Credits: 3
(3,0)

MLT 458 Advanced Clinical Microbiology

This course will use a problem solving approach to build upon the theoretical concepts introduced in Clinical Microbiology I and II. Case studies will be used to correlate laboratory and clinical information related to infectious diseases. Bacteria, parasites, fungi, and viruses that are less commonly encountered in the clinical laboratory will be discussed, along with the specialized techniques for their identification. Emerging pathogens and diagnostic techniques will be introduced. Prerequisite(s): MLT 257 and 258 with a grade of C or higher Credits: 3
(3,0)

MLT 481 Advanced Practicum in Immunohematology

Students practice advanced clinical skills in Immunohematology (Blood Bank) through a ten day clinical internship at an off campus affiliated clinical laboratory under the guidance of clinical laboratory personnel. The clinical coordinators at the affiliated sites will evaluate students for both technical proficiency and professional behavior demonstrated during the internship. Students are responsible for their own transportation to the clinical location. Prerequisite(s): MLT 428 with a grade of C or higher Credits: 1
(0,3)

MLT 482 Advanced Practicum in Clinical Chemistry and Hematology

Students practice advanced clinical skills in Clinical Chemistry and Hematology through a ten day clinical internship at an off campus affiliated clinical laboratory under the guidance of clinical laboratory personnel. The clinical coordinators at the affiliated sites will evaluate students for both technical proficiency and professional behavior demonstrated during the internship. Students are responsible for their own transportation to the clinical location. Prerequisite(s): MLT 423 and 443 with a grade of C or higher Credits: 1
(0,3)

MLT 483 Practicum in Molecular Pathology

Students practice clinical skills in Molecular Pathology through a ten day clinical internship at an off campus affiliated clinical laboratory under the guidance of clinical laboratory personnel. The clinical coordinators at the affiliated sites will evaluate students for both technical proficiency and professional behavior demonstrated during the internship. Students are responsible for their own transportation to the clinical location. Prerequisite(s): MLT 421 with a grade of C or higher Credits: 1
(0,3)

MLT 484 Advanced Practicum in Clinical Microbiology

Students practice advanced clinical skills in Microbiology through a ten day clinical internship at an off campus affiliated clinical laboratory under the guidance of clinical laboratory personnel. The clinical coordinators at the affiliated sites will evaluate students for both technical proficiency and professional behavior demonstrated during the internship. Students are responsible for their own transportation to the clinical location. Prerequisite(s): MLT 458 with a grade of C or higher
Credits: 1
(0,3)

MLT 491 Immunohematology Practicum

Students practice basic and advanced clinical skills in Immunohematology (Blood Bank) through a twenty-day clinical practicum at an off-campus affiliated clinical laboratory under the guidance of clinical laboratory personnel. The clinical coordinators at the affiliated sites will evaluate students for both technical proficiency and professional behavior demonstrated during the practicum experience. Students are responsible for their own transportation to the clinical location. Prerequisite(s): MLT 330 with a grade of C or higher.
Credits: 2
(0,0,6)

MLT 492 Clinical Chemistry & Serology Practicum

Students practice basic and advanced clinical skills in Clinical Chemistry and Serology through a twenty day clinical practicum at local affiliated clinical laboratories under the guidance of clinical laboratory personnel. The clinical coordinators at the affiliated sites will evaluate students for both technical proficiency and professional behavior demonstrated during the practicum experience. Students are responsible for their own transportation to the clinical location. Prerequisite(s): MLT 227 and MLT 340 all with a grade of C or higher.
Credits: 2
(0,0,6)

MLT 493 Hematology & Urinalysis Practicum

Students practice basic and advanced clinical skills in Hematology, Coagulation, and Urinalysis through a twenty day clinical practicum at local affiliated clinical laboratories under the guidance of clinical laboratory personnel. The clinical coordinators at the affiliated sites will evaluate students for both technical proficiency and professional behavior demonstrated during the practicum experience. Students are responsible for their own transportation to the clinical location. Prerequisite(s): MLT 320 and MLT 420 all with a grade of C or higher.
Credits: 2
(0,0,6)

MLT 494 Microbiology Practicum

By altering the clinical experience from two shorter length courses to one full length course, the students will benefit from more consecutive experience in the clinical laboratory. Previously, half the clinical experience was spent performing tasks at the MLT AS level, and the other half at the BS MT level, in two separate courses. With this change the students are expected to spend their entire clinical time being trained at the baccalaureate level, thereby strengthening their preparedness for entrance into practice. Prerequisite(s): MLT 350 and MLT 351 and MLT 450 all with a grade of C or higher. Credits: 2
(0,0,6)

MATHEMATICS

Mathematics Placement Level (MP1, MP2, MP3, and MP4) is determined by the scores of high school math courses and/or Regents Exams, or the score on the placement exam. Further information can be found under Placement Testing for English and Mathematics.

MTH 015 Elements of Algebra
This course fulfills the elementary algebra requirement for entrance into many programs at the College. Topics include numeric and algebraic operations, solutions of linear equations and inequalities, graphs and equations of lines, systems of linear equations, polynomial operations, factoring, and solution of quadratic equations. The minimum passing grade is C-. Grade will not be computed into GPA. Credits: 4 NCU (non-credit units)
(4,0)

MTH 102 Elementary Discrete Mathematical Models
An introduction to Discrete Mathematical Models that utilize topics including Matrix Algebra, Linear Programming, the Simplex Method, the Method of Least Squares, Markov Chains, Game Theory and Exponential Growth. Models include the Leontief Input-Output Model, the Transportation Problem, Finance Investment Strategies, Management Decisions and Campaign Strategies. The course makes use of computer software such as the spreadsheet software EXCEL and the TI-86 graphing calculator or equivalent. A graphing calculator is required. Prerequisite(s): MP2 or MTH 015 Credits: 3
(3,0)

MTH 103 Sets, Probability and Logic
This course uses set theory to develop the basic concepts of finite probability. The student is introduced to the tree and to the counting methods of devising sample spaces. The probability of mutually exclusive events, dependent and independent events are treated. Some applications to probability distributions of discrete variables are included. Finally, the basic topics in symbolic logic are covered. Prerequisite(s): MP2 or MTH 015 Credits: 3
(3,0)

MTH 107 Introduction to Mathematical Ideas
A survey of contemporary topics in mathematics designed to develop an appreciation of the power and significance of mathematics and its uses in modeling the world around us. Topics may include the mathematics of social choice, growth and symmetry, mathematical systems, Euclidean and non-Euclidean geometries, management science. Prerequisite(s): MP2 or MTH 015 Credits: 3
(3,0)

MTH 110 Statistics
Basic concepts of probability and statistical inference. Included are the binominal, normal, and chi-square distributions. Practical applications are examined. Computer assignments using Minitab form an integral part of the course. Prerequisite(s): MP2 or MTH 015 Credits: 3
(3,0)

MTH 116 College Algebra
This course is designed to provide students with a firm foundation in symbolic manipulation and algebraic reasoning. Both manipulative skills and conceptual understanding of algebraic principles are stressed. Topics include equivalent expressions and equations, linear functions, properties of exponents and logarithms, quadratic equations, power functions, exponential functions. Upon completion of this course students will be prepared for precalculus as well as for quantitative courses in the natural and social sciences. Prerequisite(s): MP2 or MTH 015 Credits: 4
(4,0)

MTH 117 Precalculus with Applications
This is a Precalculus course with applications from various disciplines including technology, science, and business. This course uses linear, power, polynomial, exponential, logarithmic, and trigonometric functions to model real world problems. The important characteristics and properties of these functions are investigated. The emphasis is on applications and problem solving. Note: Students completing this course may not receive credit for MTH 129. Prerequisite(s): MP3 or MTH 116 Credits: 4
(4,0)

MTH 129 Precalculus
In this course, the topics introduced in College Algebra course will be extended. The course will provide a comprehensive study of functions, which are the basis of calculus and other higher-level mathematics courses. The students will study the properties, graphs, and some applications of polynomial, rational, inverse, exponential, logarithmic, and trigonometric functions. Note: Students completing this course may not receive credit for MTH 117. Prerequisite(s): MP3 or MTH 116 Credits: 4
(4,0)

MTH 130 Calculus I with Applications
This is a calculus course for those not majoring in Mathematics, Engineering Science or Computer Science. Topics include the derivative, differentiation of algebraic, trigonometric, exponential and logarithmic functions, applications of the derivative and the definite integral. Applications are taken from technology, science, and business. Problem solving is stressed. A graphing calculator is required. Note: Students completing this course will not receive credit for MTH 150. Prerequisite(s): MP4 or MTH 117 or 129 Credits: 4
(4,0)

MTH 150 Calculus I
This is the first course of the calculus sequence. Topics include, differentiation of functions of one variable, introduction to integration, application of differentiation and integration. A graphing calculator is required. Note: Students completing this course may not receive credit for MTH 130. Prerequisite(s): MP4 or MTH 117 or 129 Credits: 4
(4,0)

MTH 151 Calculus II
A continuation of the calculus of one variable. Topics include, differentiation and integration of the transcendental functions, integration techniques, polar coordinates and infinite series. Prerequisite(s): MTH 130 or MTH 150 Credits: 4
(4,0)

MTH 236 Calculus II with Applications
A continuation of Calculus I with Applications. Topics include techniques of integration, applications of the definite integral, multivariable calculus, and an introduction to Differential Equations. Applications are taken from technology, science and business. Problem solving is emphasized. A graphing calculator is required. Prerequisite(s): MTH 130 or MTH 150 Credits: 3
(3,0)

MTH 245 Linear Algebra
A study of the basic properties of vectors and vector spaces; linear transformations and matrices; matrix representations of transformations; characteristic values and characteristic vectors of linear transformations; similarity of matrices, selected applications. Prerequisite(s): MTH 151 or MTH 236 Credits: 3
(3,0)

MTH 246 Introduction to Financial Mathematics

This is a course designed to introduce concepts in financial markets; present and future value calculations of money related to loans, annuities, and bonds. It also introduces simple but basic no-arbitrage derivations of the prices of the most financial contracts that are traded either on exchanges or over-the-counter (stocks, options and forward contracts) in a single and multi-period asset pricing setting. Students will analyze the valuation and hedging of European and American options and general contingent claims in the framework of the classical binomial model of the stock price. Prerequisite(s): MTH 151 or MTH 236
Credits: 3
(3,0)

MTH 250 Graph Theory and Combinatorics

An introductory to graph theory and combinatorial analysis. The emphasis is on problem solving and applications with some attention to theorems and proofs. Topics include Graph Models, Isomorphism, Planar Graphs, Circuits and Graph coloring, Trees, Minimal Spanning Trees, Arrangements and selections, Generating Functions and Inclusion/Exclusion. Prerequisite(s): MTH 150 Corequisite(s): MTH 245
Credits: 3
(3,0)

MTH 252 Calculus III

This is the third course of the calculus sequence. It generalizes single variable calculus to multivariable calculus. Functions of several variables are described numerically, graphically and algebraically. Topics include: partial differentiation, multiple integration, vectors and vector fields and line integrals. Prerequisite(s): MTH 151   Credits: 4
(4,0)

MTH 253 Differential Equations

This is an introductory course in ordinary Differential Equations designed to develop an understanding of the qualitative behavior of solutions and its relation to the process being modeled. Use of appropriate computer packages forms an integral part of the course. Topics include: first order differential equations and systems, linear systems, applications including electrical circuits and vibrations, introduction to Laplace Transform. Prerequisite(s): MTH 252   Credits: 4
(4,0)

MTH 270 Introduction to Mathematical Computing

This course is an introduction to computational, experimental, and algorithmic methods using a computer algebra system. Course topics include computational algebra, functional programming, simulation, and visualization. Numerical calculus, analysis of mathematical models and dynamics, basic linear algebra, and other mathematical problem-solving methods will be discussed. At the completion of the course, students will be familiar with a computer algebra system and how to solve mathematical problems by computational methods. Prerequisite(s): MTH 151 with a grade of C or higher or permission of the Mathematmatics Department   Credits: 3
(3,0)

MTH 290 Methods of Proof in Advanced Mathematics

MTH 290 is intended to be a bridge course from lower-division mathematics courses to upper-division mathematics. Topics include Logic and Proofs, Set Theory, Relations, Functions (Onto, One-to-One, Sequences as Functions), Cardinality, Introduction to Algebraic Structures, and Introduction to Concepts of Analysis. The focus will be on writing clear and precise proofs. Prerequisite(s): MTH 151   Credits: 3
(3,0)

MTH 315W History of Mathematics (Writing Intensive)

An investigation of the development of mathematics from ancient times to the present. Students will study topics which may include ancient mathematics (in particular, the Pythagorean Theorem and quadratic equations), Greek mathematics (Aristotle, Euclid, Archimedes, Apollonius, Ptolemy and Diophantus), medieval mathematics (China, India, Islam, Europe, America, and Africa), early modern mathematics (logarithms, analytic geometry, probability and the beginning of calculus), and modern mathematics (analysis, probability, number theory, abstract algebra linear algebra, non- Euclidean geometries, set theory, and topology). Each topic will be examined in the context of and why it was further developed. A vital component of the course will be a study of the mathematicians who provided us with these tools which are an integral part of mathematical applications in today's world. This is a writing-intensive course. Note: Students cannot get credit for MTH 315 and 315W; MTH 315W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the Applied Mathematics Department Prerequisite(s): EGL 101 with a grade of C or higher and MTH 151   Credits: 3
(3,0)

MTH 320 Geometric Structures

An axiomatic view of Euclidean and non-Euclidian geometry. The standard models of the various geometries will be constructed. Careful emphasis on proof construction and understanding. Applications of Euclidean and Hyperbolic geometries will be given. Prerequisite(s): MTH 151 or MTH 236   Credits: 3
(3,0)

MTH 322 Advanced Mathematical Analysis

Topics include: infinite series, first and second order differential equations and applications, homogeneous and forced response, Laplace transforms, Taylor series, matrices, Gauss-Elimination method. Prerequisite(s): MTH 236   Credits: 3
(3,0)

MTH 325 Mathematical Modeling in the Biological Sciences

The course will focus on mathematical models in biology, including topics such as the growth of populations, the interactions between different populations, the spread of epidemics, the Hardy-Weinberg law in genetics and drug levels in the bloodstream. The emphasis will be on determining the mathematical component of a phenomenon, creating an appropriate mathematical model, using the model to answer questions about the situation, and interpreting the effectiveness of the model. Technology will be used as an exploratory tool. Prerequisite(s): One semester of biology and MTH 151 or MTH 236   Credits: 4
(4,0)

MTH 326 Mathematical Modeling in Applied Sciences

This course will investigate various mathematical models in the applied sciences taken from real life phenomena. Basic notions of abstraction and how to work on real problems at different levels will be introduced in the course. The Models are explored using analytical, computational and graphical tools as appropriate. Models cover but are not limited to examples from Finance, Economics, Ecology, the Environment, Engineering, Biology and Behavioral Sciences. Prerequisite(s): MTH 151 or MTH 236   Credits: 3
(3,0)

MTH 330 Applied Abstract Algebra

Essential structures of modern algebra: sets, relations, groups, homomorphisms, and rings will be studied with a view toward their applicability. Applications may include error correcting codes, computational complexity, and counting problems. Prerequisite(s): MTH 245 and MTH 290   Credits: 3
(3,0)

MTH 331 Introduction to Topology

This course introduces the basic concepts and some fundamental results of Point Set Topology. Some of the topics covered are: Open sets and the notion of continuity on various fundamental spaces (the real line, Euclidean spaces, metric spaces, and general topological spaces); connectedness, compactness, countability, and separation; the Tychonoff theorem. Prerequisite(s): MTH 252 and MTH 290
Credits: 3
(3,0)

MTH 346 Continuous Time Finance

This course introduces Brownian motion, Stochastic Calculus, Ito's integral and Ito's formula which are used to derive the Black-Scholes formula in a continuous-time model rather than a limit of discrete-time models as covered in MTH 246. Pricing derivatives on financial securities using Black-Scholes formula will be covered. Prerequisite(s): MTH 246 Credits: 3
(3,0)

MTH 354 Principles of Real Analysis

Students will be introduced to the foundations of real analysis through a rigorous development of the real number system. This will be followed by a study of limits, continuity, and differentiability of real functions. The Riemann integral and the Fundamental Theorem of Calculus will be developed rigorously. Sequences and series of real functions will also be discussed. Prerequisite(s): MTH 252 and MTH 290 Credits: 3
(3,0)

MTH 355 Principles of Complex Analysis

This course will concentrate on the algebraic and analytic properties of complex numbers and functions of a single complex variables. The concepts of limits, continuity and differentiability will be extended to the complex domain. Line integrals and Cauchy's Integral Theorem will be presented. The expansion of analytic functions in Taylor and Laurent series will be derived and residue theory will be introduced. Prerequisite(s): MTH 252 and MTH 290 Credits: 3
(3,0)

MTH 356 Integrated Topics in Math and Physics

This is an integrated math-physics course with applications to topics in physics and the engineering technologies. It is meant to be interdisciplinary in nature and directed toward students in the Bachelor of Technology and Applied Mathematics programs. Topics to be covered include: Vector Algebra, Vector Calculus, Scalar and Vector Field Theory, Fourier Series, Fourier Integral, Fourier Transforms and Laplace Transforms. The focus will be on application and integration of mathematics methods to physics and engineering technologies. Note: Students completing this course may not receive credit for PHY 356. Prerequisite(s): MTH 236 or MTH 252 and PHY 136 or PHY 144
Credits: 3
(3,0)

MTH 360 Applied Probability and Statistics

A calculus-based course which studies applications of probability and statistical inference. Use of appropriate computer packages forms an integral part of the course. Topics are chosen from statistical parameters, continuous and discrete random variables, probability distributions, correlation and regression analysis, design of experiments and ANOVA. Prerequisite(s): MTH 151 or MTH 236 Credits: 3
(3,0)

MTH 365 Vector Calculus

The course begins with a detailed development of vector algebra in two- and three- dimensions. Also covered will be differentiation and integration of scalar and vector valued functions of vectors. Vector fields will be discussed with particular attention to line and surface integrals. Important vector theorems such as Green's, Stokes' and the divergence theorem and their important applications will be presented. A discussion of the Fourier series and the Fourier integral will complete the course. Prerequisite(s): MTH 245 and MTH 252 Credits: 3
(3,0)

MTH 385 Applied Partial Differential Equations

This course is an introduction to partial differential equations. Topics include introduction to heat, wave, and Laplace equations, Fourier series, numerical methods, applications. Use of an appropriate computer packages is an integral part of the course. Prerequisite(s): MTH 253 Credits: 3
(3,0)

MTH 390 Methods in Operations Research

This course is intended to focus on understanding, formulating and solving deterministic models in operations research. Maximum and Minimum Linear Programming problems will be studied graphically and theoretically. The Simplex Method, Sensitivity Analysis and Duality will be covered and an in-depth analysis of the reasoning on which these topics are based will be given. Instruction in computer software techniques will be presented to solve Linear Programming problems, using the simplex method and sensitivity analysis. Transportation Problems, Integer Programming, or Markov Chains will be covered. In order to enhance quantitative reasoning, the course emphasizes the formulation of mathematical models commonly used by operation research analysts, as well as the theoretical and computer software solutions to these models. Prerequisite(s): MTH 130 or MTH 150
Credits: 3
(3,0)

MTH 400 Problem Solving Seminar

This is a seminar course where students will work on a variety of non-routine problems chosen by the instructor and present their solutions (or partial solutions). Students will also work on a major research project under the guidance of the instructor and will report their results. Cooperative work will be encouraged and much of the work will be of an "open ended" nature. Communications skills will be stressed. Prerequisite(s): MTH 252 or MTH 245 or MTH 250 or MTH 253
Credits: 3
(3,0)

MTH 405 Seminar in Applied Mathematics

This is a capstone course for Applied Mathematics students. Students will work on a major project taken from business, industry or government agency. Students will have to present their results both orally and in writing. The completed report must meet a standard that is acceptable to the business community. Students may work in teams or individually. They will report on their progress as part of the seminar. This course may be taken twice for academic credit. Prerequisite(s): MTH 354 Credits: 3
(3,0)

MTH 422 Numerical Methods

This is an introductory elective course for Applied Mathematics students. Topics include solutions of nonlinear equations, interpolation and approximation of functions, numerical differentiation and integration, iterative techniques in Linear Algebra and others. Solutions of problems using computer will be an integral part of this course. Prerequisite(s): MTH 151 and MTH 245 Credits: 3
(3,0)

MTH 445 Linear Algebra II

This course is a continuation of MTH245. Topics include further study of eigenvalues and eigenvectors; inner product spaces, orthogonality, least squares problems, symmetric matrices, diagonalization, quadratic forms and the singular value decomposition. Applications to Markov chains, constrained optimization, differential equations, statistics, and image processing, among others, will be shown. Prerequisite(s): MTH 245 Credits: 3
(3,0)

MTH 460 Applied Probability and Statistics II

A continuation of MTH 360. Topics chosen from hypothesis testing; sampling distributions; analysis of variance and covariance; nonparametric techniques; probability distributions; multivariate techniques. Prerequisite(s): MTH 360 Credits: 3
(3,0)

MTH 490 Topics in Applied Mathematics

Lectures in applied mathematics that may introduce topics not covered in the Applied Mathematics curriculum or may expand upon the content of existing courses. These topics vary from year to year, and the specific description of the content of each course will be publicized in advance by the department. Examples of such topics are computational linear algebra, applied optimization, dynamical modeling, financial mathematics, etc. Prerequisite(s): MTH 245 and MTH 252 Credits: 3
(3,0)

MUSIC

MUS 108 Survey of Western Music

This course will introduce students to music from Ancient Greek times to present. The course will also allow students to appreciate music in relation to the other arts, to other cultures, and to historical events. Credits: 3
(3,0)

NURSING

NUR 094 NYS PN/RN Transition

This course is designed to validate prior learning, and update/enhance the student's knowledge. This course facilitates transition from the role of Practical Nurse to that of a student preparing for the role of Registered Nurse. Nursing process is used as the framework for critical thinking and problem solving. Students holding and/ or eligible to hold a current registration in a United States Jurisdiction may take this non-credit course. The amount of work required is equivalent to a course bearing 3 credits. For progression into the Registered Nurse program, the student must hold a current LPN registration in a US Jurisdiction and meet the specific requirements of the institution and/or to which s/he is applying. Credits: 3 NCU (non-credit units)
(3,0)

NUR 095 Clinical Skills Update

A mandatory 30 hour non-credit unit course for nursing students who have interrupted their nursing study. Instruction will be provided in the lab and clinic area. Non-credit units/offered Intersession and Summer. Course grade will not be computed in GPA. Credits: 1 NCU (non-credit units)
(0,2)

NUR 100 Health Assessment

This course will enable students to acquire skill in obtaining a health history and in performing physical examinations. Emphasis will be on identification of normal physical characteristics, common variations, and beginning skills in detecting deviations from normal. Students are given the opportunity to demonstrate beginning skills in the nursing laboratory, and apply these skills to the clinical setting to provide holistic care to individuals and families. Prerequisite(s): BIO 171 with a grade of B or higher Corequisite(s): NUR 100L and NUR 114T, NUR 114L, NUR 114H, NUR 114S Credits: 3
(2,3)

NUR 110 Foundations of Nursing I

In foundations of Nursing I students begin their professional socialization into the discipline of nursing. Foundations of Nursing I introduces basic underpinnings of nursing practice. It provides an overview of nursing as a discipline and addresses such topics as historical roots, the domains of nursing, and the care/cure paradigm, and social and educational perspectives of nursing. To continue in the nursing program the student must maintain a grade of C+ (77) or higher in this course. Credits: 1
(1,0)

NUR 111 Foundations of Nursing II

In Foundations of Nursing II students will continues to build on ideas introduced in Foundations of Nursing I in order to establish their identity with the nursing profession. The profession of nursing will be explored from a variety of viewpoints. Concepts of professionalism; roles, and attributes needed to practice nursing competently will be explored. A personal philosophy of nursing and nursing practice will be developed. To continue in the nursing program the student must maintain a grade of C+ (77) or higher in this course. Prerequisite(s): NUR 110 with a grade of C+ or higher Credits: 1
(1,0)

NUR 114 Clinical and Theoretical Foundations of Baccalaureate Nursing Practice

This course provides an introduction to nursing and patient care concepts, emphasizing the knowledge, skills and attitudes needed to provide safe, high quality care to individuals, families and communities within a multicultural environment. The theoretical foundation for professional nursing behaviors, evidence-based practice, and patient-centered care are explored within the context of various health care environments, delivery systems, and inter-disciplinary teams. Concepts of caring, critical thinking, communication, and the role of the professional nurse as provider of care, manager of care, and member of a profession are integrated throughout the course as a framework for presentation of the essential components of generalist baccalaureate nursing practice. Students are given the opportunity to demonstrate beginning skills in the nursing and simulation laboratory, and apply these skills in the clinical setting to provide holistic care that promotes optimum wellbeing to individuals and families. To continue in the nursing program the student must maintain a grade of C+ (77) or higher. Prerequisite(s): BIO 170, 171 Corequisite(s): NUR 114H, 114L, 114S, NUR 100, 100L Credits: 7
(2,5,12)

NUR 150 Medication Dosage Calculation

This course is designed to provide students with the requisite knowledge and skills to accurately calculate medication dosages. Fundamental formulas will be taught, as well as the theoretical and mathematical concepts related to the administration of oral and parenteral medications. Credits: 1
(1,0)

NUR 211 Clinical Pharmacology for Nursing

This course provides a foundation of basic pharmacology necessary for a nurse in general practice to establish a knowledge base that applies to patient centered care and education. Emphasis is placed on pharmacological concepts that build upon knowledge from the sciences to promote optimal well-being across the lifespan. Pharmacotherapeutic agents used to treat illness, and promote, maintain, and restore wellness are discussed in the context of evidence-based research, clinical judgment, and decision making. To continue in the program a student must maintain a grade of C+ (77) or higher in this course. Prerequisite(s): BIO 170 and BIO 171 with a grade of B or higher and NUR 114 with a grade of C+ or higher. Credits: 3
(3,0)

NUR 215W Developing Nurses' Ways of Knowing (Writing Intensive)

This course presents an overview of nursing as a professional, scholarly discipline, which is an essential part of healthcare. Topics discussed include ways of knowing in nursing, specifically theoretical/empirical, ethical, personal, esthetic, intuitive, and sociopolitical knowing. There is also emphasis on developing ideas about related topics such as historical and social factors, reflective practice, nursing concepts, learning, nursing theory, skills acquisition, and evidence for practice that provide foundations for current professional nursing practice. This is a writing intensive course. To continue in the nursing program the student must maintain a grade of C+ (77) or higher in this course. Note: Students cannot get credit for NUR 215 and 215W; NUR 215W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the Nursing Department Prerequisite(s): NUR 111 and EGL 101 with a grade of C or higher Credits: 3
(3,0)

NUR 216 The Art of Nursing

This course explores the artistry of professional nursing. The theories of caring, the importance of self-care, the mind-body connection, and the value of the nurse's presence in today's healthcare system will be explored. The concepts of self-care assessment and intervention will be practiced through reflection and dialogue within an environment of supportive peers and faculty. Other concepts including mindfulness, movement, and personal creativity will be discussed. The evidence supporting the use of therapeutic modalities such as humor, music, and touch will be evaluated for inclusion in a nursing plan of care. To continue in the nursing program the student must maintain a grade of C+ (77) or higher in this course. Corequisite(s): NUR 110 Credits: 2
(2,0)

NUR 217 Care of Individuals Experiencing Acute Health Challenges

This course focuses on the experiences of individuals/families with acute health challenges within a multicultural society. The student will be introduced to concepts and skills common in the care of patients with acute health challenges. Emphasis is placed on the nursing process and clinical decision making. The student will examine essential concepts and issues related to acute health challenges from different viewpoints. Throughout this course the student continues to develop self-awareness, professionalism, and the knowledge, skills, and attitudes necessary to practice nursing in a caring, non-judgmental manner in an increasingly complex health care system. Opportunities for application of these concepts are provided in various health care settings. To continue in the nursing program, the student must maintain a grade of C+ (77) or higher in this course. Prerequisite(s): NUR 100, NUR 110, NUR 114 with a grade of C+ or higher. Corequisite(s): NUR 217H Credits: 6
(3,0,9)

NUR 240 Nursing Beyond Borders

This three credit elective course will provide an overview on a number of topics related to global health in today's world. Topics will include essential concepts related to providing compassionate care to clients from different cultures, health care access from a global perspective, prevention of disease and the maintenance of health. Any 100 level clinical course in dental hygiene, nursing, or medical laboratory technology or other related health professions. Credits: 3
(3,0)

NUR 301 Caring for Populations in the Community Setting

This course focuses on the role of the nurse in the community working with individuals, families, groups and high risk populations in a variety of community settings. Caring for individuals across the lifespan including their families and the communities in which they live is emphasized recognizing physical, psychological, behavioral, social, and cultural needs. Evidence-based clinical concepts are incorporated as a basis for providing interventions for families and groups with multiple and complex health stressors within a population/public health framework. This course is for RN Completion Students. To continue in the nursing program the student must maintain a grade of C+ (77) or higher in this course. Prerequisite(s): NUR 215 and NUR 216 with a grade of C+ or higher Corequisite(s): NUR 301H Credits: 4
(2,0,6)

NUR 302 Pathophysiology

In this course students will examine normal body structure and function as well as concepts related to physiologic deviations that contribute to disease or that occur as a result of a disease, incorporating knowledge from the sciences as a foundation for provision of holistic, patient-centered care. Physiologic changes in body systems that lead to health problems across the lifespan will be addressed in the context of evidence-based research and clinical decision making. To continue in the program a student must maintain a grade of C+ (77 %) or better in this course. Prerequisite(s): NUR 217 with a grade of C+ or higher Credits: 3
(3,0)

NUR 305 Health Promotion and Patient Education

This course combines the critical review of health promotion strategies and the framework for designing successful patient teaching tools. Students will be introduced to the major concepts of health promotion and the issues that impact upon health and wellness. In order to better understand the global impact of health upon our society, students will research various agencies that support health promotion and review their health care agendas. The second component of the course will be an introduction to the role of the nurse as an educator and the identification of barriers to learning will be explored. Methods to develop effective evidenced based teaching plans will also be covered. To continue in the nursing department you must maintain a grade of C+ (77) or higher in this course. Prerequisite(s): NUR 215W and NUR 216 with a grade of C+ or higher. Credits: 3
(3,0)

NUR 306 Care of Individual Chronic Health

This course focuses on the experiences of individuals/families with chronic health challenges within a multicultural society. The student will be introduced to concepts and skills common in the care of patients with chronic health challenges. Emphasis is placed on the nursing process and clinical decision making. The student will examine essential concepts and issues related to chronic health challenges from different viewpoints. Throughout this course the student continues to develop self-awareness, professionalism, and the knowledge, skills and attitudes necessary to practice nursing in a caring, non-judgmental manner in an increasingly complex health care system. Opportunities for application of these concepts are provided in various health care settings. To continue in the program a student must maintain a grade of C+ (77) or higher in this course. Prerequisite(s): NUR 307 with a grade of C+ or higher. Corequisite(s): NUR 306H Credits: 6
(3,0,9)

NUR 307 Nursing Care of Children and the Child Bearing Family

This course builds on the concepts of previous courses with emphasis on the application of the nursing process and the development of critical thinking skills in focusing on health during the childbearing years, ante partum, postpartum, and the health of infants and children through adolescence. Students will explore the concepts of health promotion, disease prevention, evidence based health practice, and alterations in health related to patients and families. Emphasis is on common health issues related to maternal newborn and pediatric specific content. Nursing management and planning will include concepts from culturally diverse settings. To continue in the nursing program the student must maintain a grade of C+ (77) or higher in this course. Prerequisite(s): NUR 215W, NUR 216, and NUR 217 with a grade of C+ or higher. Corequisite(s): NUR 307H Credits: 6
(3,0,9)

NUR 401 Modes of Inquiry in Nursing

This course introduces the student to a comprehensive overview of the nursing research process. Research methods, including qualitative and quantitative approaches, will be examined. Knowledge and skills essential for understanding, interpreting, analyzing, and applying nursing research to clinical practice will be stressed. To continue in the nursing program the student must maintain a grade of C+ (77) or higher in this course. Prerequisite(s): Any 300 level nursing course. Corequisite(s): MTH 110 Credits: 3
(3,0)

NUR 402 Community and Mental Health Nursing

This course focuses on both mental health and illness concepts and the role of the nurse in the community working with individuals, families, groups and high risk populations in a variety of community settings. Caring for individuals across the lifespan including their families and the communities in which they live is emphasized recognizing physical, psychological, behavioral, social, and cultural needs. Evidence-based nursing research concepts are incorporated as a basis for community/ public health and mental health nursing practice. These concepts focus on individuals and groups with multiple and complex health stressors that exhibit maladaptive patterns and psychiatric disorders. Resources within the global community mental health system are identified. This course is for pre-licensure students. To continue in the nursing program, the student must maintain a grade of C+ (77) or higher in this course. Prerequisite(s): NUR 306 Corequisite(s): NUR 402H Credits: 4
(2,0,6)

NUR 404 Nurse as Advocate and Change Agent

This course will enable students to synthesize new knowledge and develop a personal perspective on their future professional career in nursing. The current health care environment demands a nursing workforce that is theoretically sound, clinically adept, and politically aware. Topics to be discussed and explored include patient advocacy, political awareness and influence, power and oppression, institutional policy/personal goals, risk management, utilization and audit, and quality assurance. Additional topics may be added in response to new or emerging trends in nursing and health care. To continue in the nursing program the student must maintain a grade of C+ (77) or higher in this course. Prerequisite(s): NUR 401 Credits: 3
(3,0)

NUR 405 Nursing Practicum: Special Topics

This course will allow the senior nursing student to integrate and apply knowledge from all previous courses. Under the direct supervision of an experienced registered nurse, the student will care for a variety of patients in a health care setting. Concepts including leadership, critical thinking, and quality improvement will be applied in caring for patients, families, and communities to improve healthcare outcomes. Prerequisite(s): NUR 402 and 404 with a grade of C+ or higher Corequisite(s): NUR 405H Credits: 9
(1,0,48)

NUR 406 Senior Leadership Practicum

This clinical preceptor course will provide a leadership experience for students enrolled in the Baccalaureate RN Completion track. Students will work with an experienced registered nurse functioning in a leadership role. Students will identify an area of interest in a health care setting and develop goals for their learning experience. The course will connect theoretical concepts to clinical practice allowing the learner to make the connection between the concept of nurse as change agent and nursing leadership. Prerequisite(s): NUR 404 with a grade of C+ or higher Credits: 5
(1,0,8)

PROFESSIONAL COMMUNICATIONS

PCM 226 Journalism

An introduction to practical journalism in which students write news and feature stories, editorials, and reviews, and examine techniques of newspaper design and photography. Classes include readings and discussions in the theory of mass communications. Student materials may be printed in campus publications. Note: Students taking this course may not receive credit for EGL 226. Prerequisite(s): EGL 102 with a grade of C or higher Credits: 3
(3,0)

PCM 301 Advanced Grammar and Vocabulary

Students will master a study of descriptive and prescriptive English grammar and will become familiar with concepts of linguistics and semiology. Students will expand their vocabulary by learning the use of a broad range of words and by understanding their etymological roots, their appropriateness to situation and audience, and their function in smooth syntax. Students will develop skills leading to the use of precise, concise prose style. Mastery of grammar, vocabulary and style is essential to professional-level reading, writing, speaking, listening, and editing. Students completing this course may not receive credit for EGL 301. Prerequisite(s): EGL 102 Credits: 3
(3,0)

PCM 305 Media in Communications

Students will apply the Microsoft Office skills which they have acquired to the creation of a number of real world professional communication documents and presentations. Students in the Professional Communications program must use Office applications effectively, carefully considering the purpose, function, audience, and venue of individual projects. This upper division course provides a range of assignments that reflect real world writing and speaking projects. Prerequisite(s): EGL 102 and junior level status Credits: 3
(3,0)

PCM 311 Introduction to Writing for Electronic Media

Introduction to Writing for Electronic Media will give students an overview of the issues concerning electronic media, including legal and ethical concerns. Students will learn how to write for electronic media in hands-on training in the school's computer labs using industry-standard programs. Note: Students taking this course may not receive credit for EGL 311. Prerequisite(s): EGL 102 Credits: 3
(3,0)

PCM 313W Communications Theory (Writing Intensive)

This course is designed to provide an overview of the complete process of professional communication from clarification of the problem to the presentation to the final product. The elements of communication theory are covered, as well as the criteria by which to judge the adequacies of existing theories and the techniques for developing new ones. Students will have the opportunity to work with actual communications issues within industry and present their findings in a written, oral, or visual format. This is a writing-intensive course. Note: Students cannot earn credit for PCM 313 and 313W; PCM 313W can be used to fulfill the writing intensive requirement. Prerequisite(s): EGL 101 and EGL 102 with a grade of C or higher. Credits: 3
(3,0)

PCM 315 Research Techniques

In this course students are introduced to information science, bibliographic practices, and research methods appropriate to finding, evaluating, and incorporating into documents both online and hard copy data and graphics. Students complete several research projects. Prerequisite(s): Upper division standing or permission of department chair. Credits: 3
(3,0)

PCM 320 Communications in Business

In this course students learn to compose business documents including correspondence, directives, proposals, persuasive and informative memos, and researched, analytical reports. The course emphasizes electronic research as well as professional prose style, oral presentation, and page formatting. Prerequisite(s): Junior level status or permission of department chair. Credits: 3
(3,0)

PCM 324 Report Writing and Technical Communications

A practicum in which students produce a variety of business oriented and technical documents. This course provides students with a survey of current practices and techniques appropriate to writing for forums, especially for technical journals, newspapers, and magazines. It is also designed to make students proficient at writing professional articles and reports such as new product information sheets, technical correspondence, periodic reports, summaries, process and technical descriptions, instructions and analysis, and to allow students to incorporate graphs, tables and other illustrative matter with textual content. Prerequisite(s): Upper division standing or permission of department chair. Credits: 3
(3,0)

PCM 325 Writing in Health and Disease

Students will develop skill in articulating oral and written health information for multiple audiences. The course emphasizes how to interpret medical studies, how to think critically about ethical issues in the health sciences, and how to assess communication problems between medical professionals and the communities they serve. Nutritional guidelines and food politics also are explored in depth. Using appropriate research methods, students will practice several expository forms common in health professions, such as patient instructions and articles. Students also will write a personal essay and public service announcement. Prerequisite(s): EGL 102 Credits: 3
(3,0)

PCM 326 Sport Writing

In this course students will learn skills in the identification of legitimate angles for sport stories, how to report sport events, develop sport feature stories, and write sport opinion pieces, both for print publication and the web. Students will submit written articles, be required to write on deadline, and develop skills on interviewing. Students will deconstruct published stories and acquire an understanding of the process of assembling a well researched and expertly crafted sport story. Note: Students completing this course may not receive credit for SMT 326. Prerequisite(s): EGL 102 Credits: 3
(3,0)

PCM 328 Advanced Writing and Editing

In this course, students develop clean, concise, and precise prose style and master the use of professional symbols and techniques of editing in both hard copy and electronic formats. Students develop these skills in their own writing projects, those of fellow students, and those of other amateur and professional writers. This course includes the study of research, citation, and bibliographic formats for print and electronic sources. Prerequisite(s): Upper division standing or permission of department chair. Credits: 3
(3,0)

PCM 329 Legal Writing and Analysis

PCM 329 is a course in which the student will learn the skills necessary to produce legal writing and analysis. Students will study current practices and contemporary models of legal writing, as well as legal research and the legal system. Students will compose various documents for discussion, review, and revision. A research project/ appellate brief is required, which will include an oral presentation to the class. Prerequisite(s): EGL 102 Credits: 3
(3,0)

PCM 330 Journalism II

In this course students will learn the many skills necessary in the publication of the newspaper. They will accept written articles, do edits, use the necessary software in producing the pages, write headlines, create formats, include photographs and other illustrations, design and organize the entire paper, learn about the costs involved in the printing and distributing a newspaper. Prerequisite(s): PCM 320 or PCM 226 or PCM 324 or EGL 226 Credits: 3
(2,2)

PCM 331 Advanced Oral Communications

This course is designed to develop effective and professional communication in the areas of communication theory, advanced presentation skills, and voice and diction. A major component of the course provides students with a personalized voice and diction diagnostic profile which informs each student of specific speech characteristics they present that deviate from Standard Eastern Dialect. Particular attention is given to New York Regional Dialect and foreign accent reduction. The course also introduces various theoretical systems of communication. There is a strong focus on the development and effective application of presentational skills in both public and group/team environments with an emphasis on professional settings. All aspects of the course contain written components which include student readings and reports as well as comprehensive speech outlines. Note: Students taking this course cannot receive credit for SPE 331. Prerequisite(s): EGL 102 Credits: 3
(3,0)

PCM 332 Journalism III

Students will learn all aspects of putting a newspaper together including writing headlines, layout and production. Students are expected to produce four issues of The Rambler. This class will give students real life experience of publishing a paper and meeting deadlines and using InDesign software. Students are expected to take photos and are required to have access to a camera. Cell phone photos will not be accepted. This class will be incorporating the on-line newspaper the Rampage and adding to it for a print edition which is The Rambler. Those editions would include columns, op-ed pieces, profiles, etc. Prerequisite(s): EGL 226 or PCM 226 or PCM 320 or PCM 324 Credits: 3
(3,0)

PCM 340-345 Special Topics in Professional Communications

Courses that range from 340-345 are special topics courses. Students will learn the skills necessary to write in a particular genre or type required in a particular professional setting. Students will study current practices and contemporary models and will compose several thoroughly researched documents in this genre for discussion, review and revision. Prerequisite(s): EGL 102 and junior level status. Credits: 3
(3,0)

PCM 420 Advanced Technical Communications

Students learn advanced techniques in composing reports, technical papers, oral presentations, business communication, and press releases. Students evaluate classical and contemporary theories of rhetoric and apply them to their own writing as well as the writing of others. Prerequisite(s): Junior level status or permission of department chairperson. Credits: 3
(3,0)

PCM 425 Documentation Procedures

Students learn to write instructions and explain processes in professional documents. They review style, editing, desktop publishing skills, and the overarching importance of attention to audience, purpose, and task. Prerequisite(s): Permission of department chair or PCM 328 and VIS 242. Credits: 3
(3,0)

PCM 426 Culture and Communication

The goal of this course is to introduce students to the various ways culture and communications are interrelated. Specifically, the course is designed to help students become more effective communicators in the multi-cultural world in which they live and work. To achieve this goal, students will study various theories about the relationship between culture and communication and apply these theories to solving real world problems that they may confront in communicating with people from other cultures. Prerequisite(s): One Sociology course, and 300 Level PCM Course or EGL 216 or EGL 102, or Permission of the Chair. Credits: 3
(3,0)

PCM 428 Grant Writing

This course is an intensive study designed to provide a complete overview of the grant writing process. Students will learn to research funding sources, write proposals, and negotiate with funding sources. Required assignments include searching for funding agencies, using various courses, and working in groups to complete a sample grant proposal. Students will locate funding sources and complete a grant proposal. Prerequisite(s): EGL 101 and 102 Credits: 3
(3,0)

PCM 450 Professional Communications Internship I

This course is an internship in a business, civic, educational, government, or not-for-profit organization. Students participate by using their communication skills in real world situations. Prerequisite(s): Junior-Level status or permission of department chair. Credits: 3
(1,0,6)

PCM 460 Internship II

Students will work in another off-campus organization. They will complete 90 hours of work on site, confer with their on-site supervisor and campus academic supervisor at regular intervals, and complete a portfolio illustrating responsibilities they completed in their on site location. Prerequisite(s): PCM 450 Credits: 3
(1,0,6)

PHYSICAL EDUCATION

PED 100 Introduction to Badminton

This course is designed to teach the student the fundamental skills necessary to play the game of Badminton correctly. It will stress the various shots needed, i.e. the forehand and backhand drive, clear smash and drop shot. It will also concentrate on the history, rules and etiquette of badminton. Credits: 1
(1,0,2)

PED 115 Introduction to Self Defense

This course is designed to teach students the history of Self Defense. The basic skills needed in defending oneself against attack will be taught. Some forms of Karate and Judo will be included. Credits: 1
(1,0,2)

PED 119 Introduction to Tennis

This course is designed to teach a beginning Tennis player the fundamental skills of the game; stressing the forehand and backhand serve and volley strokes. It will also cover history, scoring, rules, terminology, etiquette and strategy. Credits: 1
(1,0,2)

PED 121 Introduction to Weight Training and Fitness

This course will provide students with the opportunity to develop weight training skills and techniques. This course is designed for students who are interested in physical fitness and will require weight training workouts during class time. We will discuss training safety and learn how to set up a personalized training program for another student. Credits: 1
(1,0,2)

PED 125 Introduction to Racquetball

This class is designed to teach the basic skills, fundamentals, rules, strategies, and techniques required to play the game of racquetball. This introductory course will allow students the opportunity for skills acquisition to incorporate the game of racquetball as a lifetime activity. Credits: 1
(1,0,2)

PED 131 Introduction to Golf

This course is designed to introduce students to the concepts, rules, etiquette, and skills involved in the sport of golf. This introductory course will allow students the opportunity for skills acquisition to incorporate golf as a lifetime activity. Credits: 1
(1,0,2)

PED 135 Introduction to Volleyball

This course is designed to allow students to develop basic skills, learn the rules of the game, and utilize basic offensive and defensive systems of the game of volleyball. Credits: 1
(1,0,2)

PED 203 Introduction to First Aid, AED and CPR Training

This course is designed to help students understand the principles of cardiopulmonary resuscitation and the effectiveness of the trained first responder. Students will become proficient in performing CPR on adults, children and infants. Students will also learn to perform various methods of Airway and Pulmonary Resuscitation and AED. The American Red Cross or the American Heart Association certification will be awarded upon the completion of the course. The course will also involve first aid when caring for accidents or sudden illness. Students will learn how to administer first aid and conduct immediate rescue and care of an emergency victim. All students will receive a Standard First Aid Card. Credits: 3
(3,0)

PED 270 Theory and Techniques of Coaching

Topics will include a history of interscholastic athletics in NYS, as well as the objectives, rules, regulations, and policies of athletics. Performance skills, technical information and organization, and management practices will also be among the topics covered. The special training and conditioning of the athletes in specific sports, the filling of equipment needs, specific safety precautions, and officiating methods will also be examined. The student may spend time with a certified coach that would encompass practical experience in the specific sport and/or may spend time observing other approved, certified coaches. Credits: 3
(3,0)

PED 275 Principles, Philosophy and Organization of Athletics in Education

This course covers basic philosophy and principles as integral parts of physical and general education. The student will learn about the state, local, and national regulations related to athletics. In addition, legal considerations and the function and organization of leagues and athletic associations in NYS will be addressed. Personal standards for the responsibilities of the coach as an educational leader, as well as his or her role in public relations and general safety procedures will be covered. The student will also understand the general principles of school budgets, records that must be kept, the purchasing function, and the use of facilities.   Credits: 3
(3,0)

PED 280 Health Sciences Applied to Coaching

This course is a series of interactive exercises designed to study Health Sciences as they apply to coaching sports. Through these activities, exercises and health application to coaching topics, participants will gain information, organize it for professional and personal use, and apply it to their particular programs. This course will also help define selected principles of biology, anatomy, physiology and kinesiology related to coaching, risk minimization, mixed competition, NYSED selection and classification of athletes, and age and maturity of athletes. Credits: 3
(3,0)

PED 285 Rules of the Game and NCAA Compliance

This course will prepare students for involvement in the areas of recreation, interscholastic and collegiate sports as well as NCAA compliance. A review of the rules of non-major sports will be emphasized, as there is an increase in participation in those sports by scholastic and college athletes. This course will also help students develop careers in the interscholastic sport administration. Credits: 3
(3,0)

PED NC1 NCAA Physical Education Credit

The Sports Management and Physical Education Departments offer one credit if Physical Education given to any student that participates, in accordance with department guidelines on an NCAA approved athletic team offered at Farmingdale State College. There will be a maximum of two credits issued per student athlete during their stay at FSC. Credits: 1
(0,0,3)

PED NC2 NCAA Physical Education Credit

The Sports Management and Physical Education Departments offer one credit of Physical Education given to any student that participates, in accordance with department guidelines, on an NCAA approved athletic team offered at Farmingdale State College. There will be a maximum of two credits issued per student athlete during their stay at FSC. Credits: 1
(0,0,3)

PHILOSOPHY

PHI 103 Philosophy, Law and the Modern Citizen

An introduction to concepts in philosophy, law, and citizenship and their interrelationship. Ancient and modern thinkers in each field are discussed. Emphasis is on the application of theory to everyday life through citizen apprenticeship. Credits: 3
(3,0)

PHI 105 Philosophy: Classical and Medieval

An examination of philosophical issues based on the writings of classical and medieval authors. Major topics include theory of knowledge, logic, and religion. Prerequisite(s): EGL 101   Credits: 3
(3,0)

PHI 106 Philosophy: Modern and Contemporary

An examination of philosophical issues based on the writings of modern and contemporary authors. Major topics include metaphysics, ethics, and politics. Prerequisite(s): EGL 101   Credits: 3
(3,0)

PHI 110 Philosophy, Politics & Society

This course is an introduction to social and political philosophy. Students will encounter concepts as practical tools for modern citizenship and guides to understanding and critiquing the worlds in which they live. The aim of this course is a more reflective political life, a sophisticated awareness of social and cultural issues, and an understanding of and appreciation for social and political concepts. Prerequisite(s): EGL 101   Credits: 3
(3,0)

PHI 205 Ethics

An examination of ethical theories including relativism, determinism, and the concept of duty, and the application of these theories to contemporary problems. The place of ethics in relation to other branches of philosophy and the role of religion in shaping ethical theory are also discussed. Prerequisite(s): EGL 102 with a grade of C or higher   Credits: 3
(3,0)

PHI 207 Business Ethics

An examination of ethical issues that arise in business and how these issues can be resolved. Various principles of ethical theory are analyzed and applied to particular business situations. Prerequisite(s): EGL 102 with a grade of C or higher   Credits: 3
(3,0)

PHI 211 Logic

Logic is an introductory course in reasoning offered by the English/Humanities Department. Topics to be considered include: logic and its essential role in the expression of ideas; the definition of logic: kinds of logic, e.g., informal, formal, symbolic; the role of logic in relation to the other fields of philosophy, and to the fields of the social and natural sciences. Other topics: valid categorical syllogisms, syntactic and semantic concepts of proof, reasoning with classes, Venn diagrams, reasoning with propositions, propositional logic, paradox analysis and heuristics- how to think of new ideas and how to solve problems. Prerequisite(s): EGL 101   Credits: 3
(3,0)

PHI 220 Special Topics in Philosophy

This course allows students to explore intensively a major philosophical period, author or theme. The subject for each semester will be determined prior to registration. Possible topics include: Bioethics, Philosophy of Religion; Philosophy of Africa. Short papers involving secondary research will be required. Prerequisite(s): EGL 102 with a grade of C or higher   Credits: 3
(3,0)

PHI 230 Philosophy Through Film

This course introduces students to the history of philosophy through cinema. Philosophical texts will be paired with films that explore philosophical questions or themes. This course also considers how film provides a creative and enjoyable public medium for the discussion of philosophical theories and ideas. Prerequisite(s): EGL 101 and EGL 102 all with a grade of C or higher   Credits: 3
(3,0)

PHI 307 Philosophy of Science and Technology

A philosophical overview of developments in science and technology, showing their impact on general culture. Some highlights include the early separation of religion and philosophy, the role of mathematics in culture, the beginnings of modern science in the works of Galileo, Descartes, Leibniz and Newton, and contemporary revolutions in science and technology. Prerequisite(s): One semester of science and EGL 102 with a grade of C or higher   Credits: 3
(3,0)

PHYSICS AND PHYSICAL SCIENCE

The Physics Department at Farmingdale State College provides its students with an understanding of the interactions among all forms of matter, energy, and space. Toward this end, the Department offers each student a physics education carefully tailored to suit his/her needs at all levels of baccalaureate education. Students pursuing science-related or technically-oriented degrees take either the algebra-based College Physics sequence (PHY 135 and PHY 136) or the calculus-based Physics sequence (PHY 143 and PHY 144). Students who complete these sequences may also choose from a number of electives covering such fields as electromagnetic theory and modern physics. Students not pursuing a science-related field of study may choose from among a diverse assortment of physical science courses, including astronomy, meteorology, geology, and the environment. These specialized courses for non-science students are taught by faculty with strong interest and expertise in the respective sub-disciplines. Students have the opportunity to taste the flavor of science and to appreciate its value to humanity in a technical society.

PHY 110 Physical Science: Physical Geology

A survey course in physical geology, examining the various minerals and rock types and the physical processes occurring on and below the surface of the earth. Credits: 3
(3,0)

PHY 111 Physical Science: Historical Geology

A study in the origin and evolution of the earth through geological time and the methods used by geologist in determining the geological history of the earth. Credits: 3
(3,0)

PHY 112 Physical Science Survey

A broad descriptive course in Physical Science. Topics to be covered will be from the areas of Philosophy of Science, Astronomy, Physics, Meteorology, Chemistry, Technology, and the Environment. Credits: 3
(3,0)

PHY 113 Physical Science: Physics

A descriptive course that presents the ideas of Classical and Modern Physics qualitatively and conceptually. The emphasis will be on the relevance of Physics to the students' own experience. Topics covered will be Mechanics, Properties of Matter, Heat, Sound, Electricity and Magnetism, Light, Quantum Theory and Nuclear Physics. This course requires some knowledge of high school level mathematics. Credits: 3
(3,0)

PHY 114 Physical Science: Environment

A descriptive course dealing with environmental problems caused by population, pollution, transportation, energy requirements, radioactivity, radioactive wastes, thermal emission, noise and heat. Credits: 3
(3,0)

PHY 115 Physical Science: Energy

An introductory course in the scientific, technological and social aspects of Energy. The course is intended to develop an understanding of the physical basis of Energy and an appreciation of the role of Energy in the contemporary world. Basic concepts and principles are studied. Conservation Laws, Fuels, and Energy Conversion Systems are discussed. Resources, Consumption Patterns, and Alternative Economics are analyzed. Credits: 3
(3,0)

PHY 116 Physical Science: Meteorology

A descriptive course in elementary meteorology that will introduce the student to weather analysis and forecasting. Topics covered will be Temperature, Pressure, Wind Radiation, Clouds, Precipitation, Synoptic weather charts, Air Masses, Low and High Pressure Areas, Frontal Systems, Thunderstorms, Weather Forecasting, and Local Weather. Weather charts will be analyzed and students will make their own weather forecasts. Credits: 3
(3,0)

PHY 117 Physical Science: Solar Astronomy

An elementary astronomy course in which the student is introduced to the historical development of astronomy, and to our present view of the solar system and its origins. Recent NASA missions to the planets are discussed, and periodic observations of the skies may be conducted. Credits: 3
(3,0)

PHY 118 Physical Science: Stellar Astronomy

An elementary astronomy course in which the stars and galaxies are treated in detail. Recently discovered phenomena, such as pulsars, quasars, and black holes will be studied. Discussion will also center on cosmology, the NASA missions, colonization of space, and other topical subjects in astronomy. Periodic evening observations of the skies may be conducted. Credits: 3
(3,0)

PHY 119 Physical Science: Technology

A descriptive course emphasizing the major events in Technological History, the Rise of Scientific Technology, Delivery Systems, Systems Science, and the impact of Technology of Man and Society. The course is intended to assist the student in the formulation of a personal set of criteria in order to understand and respond to technological changes in modern society. Credits: 3
(3,0)

PHY 120 Physical Science: Extraterrestrial Phenomena

The possible existence of extraterrestrial life is examined by investigating those areas of the physical sciences and related disciplines which may shed more light on this elusive problem. Arguments are drawn from astronomy, astrophysics, electromagnetic theory, probability theory, relativity, atomic physics, nuclear physics and particle physics. Historical and archaeological views are also discussed. The discussion of extraterrestrial life is utilized as a framework from which many mysteries of the universe are unraveled for the student. Credits: 3
(3,0)

PHY 121 Descriptive Classical Physics

A course covering the fundamental concepts of Classical Physics. Primarily intended for students in the Arts option of the Liberal Arts and Sciences program. Topics will include mechanics, heat, electricity, and magnetism. A knowledge of elementary algebra is required. Credits: 3
(3,0)

PHY 122 Descriptive Modern Physics

This is a course covering the fundamental concepts of modern physics. This course is intended for non-science students, including students in the Arts Option of the Liberal Arts and Sciences programs, as well as students in the School of Business. Topics will include waves, light, relativity, quantum physics, the nucleus and elementary particles. Knowledge of elementary algebra is required. Credits: 3
(3,0)

PHY 123 The Theory of Everything-The Unification of Physical Law

The four fundamental forces in nature, gravity, electromagnetism, and the strong and weak nuclear forces, appear to be very distinct phenomena. Early attempts to unify them into a single theory of the universe were met with failure and even such great physicists as Albert Einstein were often derided for such futile efforts. With the advent of recent strides in string theory, super symmetry, M-Theory and hyperspace, most physicists believe that man is within reach of such fundamental knowledge. It is the purpose of this course to place this same understanding of unification within the student's grasp. Without resorting to any complex calculations, the course will survey Newton's classical mechanics, Maxwell's theory of electricity and magnetism, Einstein's relativity theories, quantum mechanics, particle physics, and the new particle physics strings. The student will contemplate the possibility of a universe which may be fully explained by a single physical theory. Credits: 3
(3,0)

PHY 125L Physical Science Laboratory I

A Physical Science Laboratory to accompany any of the Physical Science Theory courses listed above. Experiments will be in the area of Physics, Astronomy, Meteorology, the Environment and Technology. Credits: 1
(0,2)

PHY 126L Physical Science Laboratory II

A continuation of PHY 125L. Prerequisite(s): PHY 125L Credits: 1
(0,2)

PHY 128 Physics: Computers/ Computation

The physical principles which govern the design and use of computing equipment are discussed. Discussion will include the historical development of computation equipment from the Babbage calculator through integrated semiconductor logic and laser-optical memories. Other topics will demonstrate the use of computation in scientific applications and will include Boolean logic, binary arithmetic, programming languages and an introduction to programming. Prerequisite(s): PHY 113 Credits: 3
(3,0)

PHY 129 Computers in Physical Sciences

A course designed to familiarize the student with computer operation in the physical science laboratory. Credits: 1
(0,2)

PHY 135 College Physics I

An integrated theory/laboratory general college physics course without calculus. Topics will include fundamental concepts of units, vectors, equilibrium, velocity and acceleration in linear and rotational motion, force, energy, momentum, fluids at rest and in motion, and oscillatory motion. Laboratory problems, experiments and report writing associated with the topics studied in the theory are performed. Prerequisite(s): MTH 129 Corequisite(s): PHY 135L Credits: 4
(4,2)

PHY 136 College Physics II

A continuation of PHY 135. Topics will include heat, electricity, magnetism, light and optics. Prerequisite(s): PHY 135 Corequisite(s): PHY 136L Credits: 4
(4,2)

PHY 143 General Physics I (Calculus)

A fundamental, calculus based, physics course with laboratory offered primarily for students in Science curricula. Topics discussed include Mechanics, Wave Motion, Kinetic Theory, and Thermodynamics. One of MTH 130 or MTH 150 must be taken either as a prerequisite or corequisite. Credits: 4
(4,2)

PHY 144 General Physics II (Calculus)

A continuation of PHY 143. Topics discussed include Electricity, Magnetism and Optics. Prerequisite(s): PHY 143 Corequisite(s): PHY 144L Credits: 4
(4,2)

PHY 151 University Physics I

A fundamental, calculus based, physics course in three semesters offered primarily for students in the Engineering Science curriculum. Topics discussed in the first semester include mechanics of particles and rigid bodies, work energy momentum, conservation laws, and fluids. Prerequisite(s): MTH 150 Credits: 4
(3,0,2)

PHY 152 University Physics II

A continuation of PHY 151. Topics will include Coulomb's Law, the electric field, potential, capacitance and properties of dielectrics, current, resistance and electromotive force. D-C circuits and instruments. The magnetic field and forces, induced EMF, alternating currents and electromagnetic waves. Prerequisite(s): PHY 151 Corequisite(s): MTH 151 Credits: 3
(2,0,2)

PHY 161 University Physics Laboratory

Laboratory experiments associated with PHY 151 and part of PHY 152. Prerequisite(s): PHY 151 Corequisite(s): PHY 152 Credits: 1
(0,3)

PHY 220 Of the Cosmos: Humans in the Universe

Of the Cosmos - Humans in the Universe explores the context of our existence in terms of cosmic, biological, and societal evolution. Within this interdisciplinary course we will examine how the underlying physical laws of our Universe, acting across systems of varied complexity, have led to the current state of our civilization. Starting with the Big Bang, we will follow the evolution of matter from primordial nucleosynthesis to the formation of the Earth in the solar nebula. We will examine the evolution of life on Earth, the ascent of Humankind, the emergence of civilization, invention of technology, and the long-term prospects for the species. Current problems facing our civilization (e.g. climate change, resource scarcity, antibiotic resistance) will be examined within this context. Prerequisite(s): General Education Lab Science Credits: 3
(3,0)

PHY 228 Introduction to Computational Physics

An introduction to computational physics in which students will apply the mathematical techniques of root finding, numerical integration, interpolation, Fourier analysis, and the solution of ordinary differential equations to physical problems including chaotic dynamics, circuit response, electrostatics, data modeling and prediction, and biophysics. No previous programming experience is expected though basic computer skills will be helpful. Prerequisite(s): (PHY 135 or PHY 143) and (MTH 130 or MTH 150) all with a grade of C or higher. Credits: 3
(3,0)

PHY 242 The Science of Science Fiction

This course surveys the science within science fiction in multiple genres of media (e.g. print, television, and movies). It explores the uses and abuses of the hard sciences in service to storytelling. It identifies the importance of real scientific ideas in understanding the limits and boundaries of science fiction's commentary on society. Prerequisite(s): PHY 135 or PHY 143 Credits: 3
(3,0)

PHY 253 University Physics III

A continuation of PHY 152. Topics will include temperature and expansion, heat and heat measurements, transfer of heat, thermal properties of matter thermodynamics, molecular properties of matter, wave motion, vibration bodies, acoustical phenomena, light reflection and refraction, lenses and optical instruments. Interference and diffraction, polarization. Prerequisite(s): PHY 152 Credits: 3
(2,0,2)

PHY 254 Modern Physics

An introduction to the basic ideas of modern physics such as Einstein's theories of relativity, early ideas of atomic structure including the Bohr and Rutherford models, photoelectric effect, de Broglie waves, wave mechanics, Schroedinger's Equation, Heisenberg's Uncertainty Principle, Hydrogen Atom, electron spin, Pauli's Exclusion Principle, quantum oscillator, classical and quantum statistics, solid state physics, nuclear physics and elementary particles. Prerequisite(s): PHY 144 or PHY 253 Credits: 4
(4,0)

PHY 255 Oscillatory Motion and Waves

An introduction to physical concepts (wave packets, normal modes, interference and diffraction) and mathematical techniques (Fourier series, transforms, complex numbers, eigenvectors), including the wave equation. Prerequisite(s): PHY 136 or PHY 144 and MTH 151 or MTH 236 all with a minimum grade of C or higher. Credits: 3
(3,0)

PHY 262L University Physics II Lab

Laboratory experiments associated with PHY 152 and PHY 253. Prerequisite(s): PHY 161 Corequisite(s): PHY 253 Credits: 1
(0,3)

PHY 304 Big Data and Society

This course will survey the current methods employed to measure, shape, and predict large scale patterns, problems, and solutions in our society. It focuses on how creating, understanding, and manipulating large data sets affects society. Students will learn firsthand to work with large data sets and make novel predictions using computational techniques. Prerequisite(s): PHY 135 or PHY 143, and Junior status Corequisite(s): PHY 304L Credits: 4
(3,2)

PHY 310 Analytical Mechanics

A course in Analytical Mechanics covering Vectors, Newtonian Mechanics – Rectilinear Motion of a Particle, Oscillations, The General Motion of a Particle in Three Dimensions, Non-inertial Reference Systems, Gravitation and Central Forces, Dynamics of Systems of Particles, Mechanics of Rigid Bodies – Planar Motion, Lagrangian Mechanics. Prerequisite(s): PHY 144 and MTH 253 Credits: 3
(3,0)

PHY 323 Electromagnetic Theory

This course is an introduction to electromagnetic theory. Topics covered are Vector Analysis; Coulomb's Law; Gauss's Law; the Del Operator; the Divergence and Gradient; the Potential; Potential Gradient; Conductors, Dielectrics and Capacitors; the Magnetic Field; the Biot-Savart Law; Ampere's Law; the Curl of E and H; Faraday's Law; Maxwell's Equations. Prerequisite(s): PHY 136 and MTH 236 Credits: 3
(3,0)

PHY 333 Modern Physics

An introduction to topics in modern physics for upper-division students. Topics included are Einstein's Special Theory of Relativity, Atomic Physics, Applied Nuclear Physics, and Solid State Physics. Prerequisite(s): PHY 136 or 144 Credits: 3
(3,0)

PHY 334L Modern Physics Laboratory

An introduction to topics in modern physics for upper-division students. Topics included are Einstein's Special Theory of Relativity, Atomic Physics, Applied Nuclear Physics, and Solid State Physics. Prerequisite(s): PHY 136 or 144 both with a grade of C or higher. Corequisite(s): PHY 333T Credits: 1
(0,3)

PHY 356 Integrated Topics in Math and Physics

This is a new integrated math-physics course with applications to topics in physics and the engineering technologies. It is meant to be interdisciplinary in nature and directed toward students in the Bachelor of Technology and Applied Math Programs. Topics to be covered include: Vector Algebra, Vector Calculus, Scalar and Vector Field Theory, Fourier Series, Fourier Integral, Fourier Transforms and Laplace Transforms. The focus will be on application and integration of math methods to physics and engineering technologies. Note: Students completing this course may not receive credit for MTH 356. Prerequisite(s): MTH 236 or 252 and PHY 136 or 144   Credits: 3
(3,0)

PHY 420 Optics

This course is an introduction to the study of light on the intermediate level. It is an elective course for students in their fourth year of the Electrical Technology program. It begins with a review of the mathematics of wave motion. Starting from Maxwell's equations, the electromagnetic theory of light is discussed. Topics covered will be the propagation of light, the laws of reflection and refraction, the superposition of waves, interference and diffraction of light, the quantum nature of light, and the concept of the laser. Prerequisite(s): PHY 323 Credits: 3
(3,0)

PHY 480 Physics Research I

Physics Research I represents substantial projects or work experiences for 135 hours earning 3 credits. Students will work alongside physics faculty in their professional research. Registration requires submission of resume three months in advance, physics faculty invitation or recommendation, and department Chair approval. Prerequisite(s): PHY 135 or PHY 143 with a minimum grade of C or higher; and permission of department chair Credits: 3
(0,0,9)

PHY 481 Physics Research II

Physics Research II represents substantial projects or work experiences for 135 hours earning 3 credits. Students will work alongside physics faculty in their professional research. Registration requires submission of resume three months in advance, physics faculty invitation or recommendation, and department Chair approval. Prerequisite(s): PHY 480 Physics Research I with a minimum grade of B or better; and permission of department chair Credits: 3
(0,0,9)

POLITICS

POL 105 Introduction to Politics

This course will introduce students to the study of politics and to the discipline known as Political Science. Focusing on fundamental concepts of power and authority, the course will examine topics central to each of the main subfields of Political Science: American Politics, Comparative Politics, International Relations, and Political Philosophy. It will also explore some contemporary issues and debates that captivate US politics. Credits: 3
(3,0)

POL 110 Introduction to Legal Studies

This is a survey course designed to give the student a basic introduction to law beginning with the various schools of legal philosophical thought, criminal and civil law and procedure, and basic contract law. The course provides the student with an understanding and overview of how the American legal system functions including introducing students to the principles of law, the administration of the legal system, legal terminology, and the inter- relationship between politics, governmental structures, legal professionals and the functioning of the legal system. Credits: 3
(3,0)

POL 115 Introduction to Public Policy

This course is a survey of contemporary issues in American public policy such as education, health care, welfare programs, crime, environmental issues, and the economy. The course will promote familiarity with major policy issues being discussed and debated in government today, as well as develop students problem-solving abilities, analytical techniques, critical thinking, and communication skills. A variety of social science fields and concepts, including political economy, program evaluation, policy analysis, and public management, will be assessed and applied to problems of governmental administration, management, and operations. Credits: 3
(3,0)

POL 250 American Politics

This course introduces students to American Politics by focusing on national politics. In addition to examining the structure of U.S. government at the federal level, this course will also investigate American political behavior (especially political parties, elections, voting) and selected policy debates the animate contemporary political discussion. Credits: 3
(3,0)

POL 251 State and Local Government

An examination of the structures and purposes of state, county, and municipal political institutions, emphasizing the importance of citizen participation in community affairs and the election process, in enhancing the effectiveness of state legislatures and judicial systems, county and municipal government, and the protection of civil rights through law enforcement. Credits: 3
(3,0)

POL 262 Global Politics

An introduction to global politics which explores regional issues in Europe, Asia, Africa, the Middle East, the America etc., as well as genuinely transnational concerns such as pandemics, international terrorism, environmental degradation, etc. Prerequisite(s): Any 100-level or higher HIS or POL course. Credits: 3
(3,0)

POL 263 American Foreign Relations

A focus on American foreign relations in the post-World War II era, describing the transition from isolationism to the adoption of mutual security agreements, and political and constitutional sanctions which sustain the nation's overseas commitments. Credits: 3
(3,0)

POL 264 Public Administratin

Introduces the role of public administration in governance at the local, regional, state, and federal level. Topics include the development of public administration as a profession and as an academic discipline; administrative and organizational theory; decision-making; the effect of politics; how policies are evaluated; as well as the roles of management, budgeting, finance, accountability, and ethics. By reading and discussing classic texts, and through analysis of case studies, students will understand the institutions, processes, and values that underlie the administration of public policy in both government and non-profit settings.   Prerequisite(s): EGL 101 and any 100-level POL course both with a C or higher. Credits: 3
(3,0)

POL 265 Comparative Politics

This course examines a broad range of governmental systems utilizing the comparative methods of analysis. In addition to analysis of selected political systems in the developed world (e.g., Great Britain, the United States, and the Russian Federation), students will also explore the governmental structures of at least one country in the developing world (India, Brazil, the People's Republic of China, etc.). Students will also compare plural democracies, monarchies, dictatorships, and neo-authoritarian forms of government, emphasizing policy-making and contemporary problems facing the state in era of globalization, such as the purported victory of neo-liberalism, the threat of terrorism, and the importance of satellite television and the Internet in shaping politics. Credits: 3
(3,0)

POL 267 Politics of the Muslim World

This course provides an introduction to the global politics Islam, including regional issues in the Arab world, Central Asia, and South Asia, as well as the impact of Islamic politics on parts of the globe where Muslims represent a significant minority (Europe, Russia, China, and sub-Saharan Africa). Credits: 3
(3,0)

POL 273 Italian Politics and Society

This survey course is designed for students who have a lively curiosity about Italy. Employing a historical perspective, students will examine Italy's efforts at "nation-building" from Machiavelli to the present. Students will learn about Italy's unique and extensive contributions to Western Civilization (politics, economics, science, art, culture, societal organization). They will also be introduced to definitions, concepts, distinctions, and theories that are fundamental to the study of political science and, in particular, the subfields of comparative politics and political philosophy. Credits: 3
(3,0)

POL 310 Introduction to Political Theory

This course will introduce students to some of the major themes and classic works of Western political philosophy. Focusing on a central theme (e.g. political obligation, human rights, equality), students will examine how that issue is addressed by some classic political philosophers such as Plato, Hobbes, Locke, Rousseau, Marx. They will also assess and debate contemporary US theory and practice with regard to the issue at hand. Prerequisite: Any 100 level or higher social science. Credits: 3
(3,0)

POL 320 Internet Politics

In the developed world, the issue is not whether the Internet affects politics, society, culture and commerce, but rather how and why it does and to what consequences. How do we comprehend the tensions, contradictions, conflicts, paradoxes created by the rapid spreading of the Internet? This course examines the impact of recent communication technologies on the social system, democracy and government, social movements and interactions, markets and commerce, globalization and governance, and the relations between culture and the state. This course focuses on the intersections among politics, society and commerce through a comparative perspective and asks students to evaluate the central controversial policy dilemmas and problems that have emerged and persisted over the Internet. Prerequisite(s): Any 100 level higher HIS or POL course. Credits: 3
(3,0)

POL 330 21st Century Energy Policy

In this course, students will examine pivotal questions of U.S. and global energy policy. Topics covered will include the development of alternatives and emerging technologies, energy efficiency, government intervention in markets, and the future role of conventional sources. While the focus is on the electricity sector, the roles played by food production and transportation will be considered as well. Students will also evaluate the role of localities and states, paying particular attention to how they are responding to changes in federal policy. Prerequisite(s): Any 200 level or higher social science Course with a grade of C or higher
Credits: 3
(3,0)

POL 360 Women in Comparative Development

This course examines the relationship between women and development, including controversies surrounding the gendered impact of development strategies. It explores issues such as women's health, education, employment, and population planning in the developing world. The course will analyze how women's rights, leadership, and political participation are restricted or hindered by various societal and governmental structures. The course will consider a wide range of issues and human rights violations against women and examine how such inequalities affect the political and developmental progress of a country. Prerequisite(s): Any 200-Level or higher social science course.
Credits: 3
(3,0)

POL 370 International Relations

This course examines how the international political system was established and how it has changed since the Peace of Westphalia. Focusing on the role of states, complemented by a thorough analysis of non-state actors, students will investigate how the global system works and how the process of globalization is remaking the political and economic world. The art and purpose of diplomacy will also be explored. Prerequisite(s): Any 100-level or higher HIS or POL course.
Credits: 3
(3,0)

POL 371 Geopolitics

This course examines the strategic, political, and cultural developments and concepts associated with geopolitical from late 19th century through the current era. Combining knowledge of international relations and world geography, students will examine how states and nations interact in an increasingly globalized world. Special topics will include the geopolitics of space, energy, religion, and the environment. Popular media's impact on geopolitics understanding will also be explored. Prerequisite(s): Any 100-level or higher HIS or POL course. Credits: 3
(3,0)

POL 372 Politics of Europe

This course is a comparative evaluation of European governments and politics, paying particular attention to challenges facing the Continent such as ethno-nationalism, immigration, and terrorism. Integration of the former Eastern Bloc into Europe since 1989 will figure prominently in the course. Transnational cooperation and integration through organizations such as NATO and the European Union will be considered. Prerequisite(s): Any 100-level or higher HIS or POL course. Credits: 3
(3,0)

POL 373 Politics in Asia and the Pacific Rim

This course is a comparative evaluation of governments and international politics in the Asia-Pacific region, paying particular attention to the rise of China and the new geopolitics of the Pacific Rim. Regional rivalries, economic reform, and foreign policy will figure prominently in the course. Transnational cooperation and integration through organizations such as APEC, ASEAN, and ANZUS will be considered. Prerequisite(s): Any 100-level or higher HIS or POL course. Credits: 3
(3,0)

POL 374 Politics in Africa

This course addresses modern African politics, including, but not limited to the colonial background and its consequences, ethnicity, the military, ideology, dependency, democracy and political stability. While a thematic approach to African politics is stressed in the course, an underlying current in the course will be the tensions that exist between opposing forces in African politics. Some of these influences include foreign and indigenous influences, anarchy and order, democracy and authoritarianism, socialism and capitalism, political decay, and development. Prerequisite(s): Any 200-level course in Social Science Credits: 3
(3,0)

POL 390 Environmental Politics

This course examines the evolution of the environmental movement in the U.S. and worldwide, focusing on the debate over environmental protection, policy-making, and the political ramifications for the national governments. Biodiversity, climate change, population issues, water pollution, regulation of emissions, land preservation, energy policy, transnational cooperation, eco-terrorism, and theories of the global commons will all be explored from a domestic and global perspective. Prerequisite(s): Any 100-level or higher HIS or POL course. Credits: 3
(3,0)

POL 391 Mass Media and Politics

This course provides a comprehensive survey of mass media's role in politics and the impact of the political environment on the press. It investigates the major media platforms (print, radio, television and the Internet) and how each shapes political culture. While the scope of the course is global, much attention is paid to the American media landscape. Other regions to be covered include the former Soviet Union, the Arab World, East Asia, and Europe. Special topics to be explored include: news management, transnational media empires, the CNN effect, infotainment, "fake news," the mass mediation of terrorism, and the connection between media and democracy. Prerequisite(s): Any 100 or higher level HIS or POL course. Credits: 3
(3,0)

POL 392 Religion and Politics

This course examines the complicated and often fractious relationship between religion and politics. Following a brief introduction to the world's major religions, we will explore how politics and faith interact around the globe. Following a geographic approach, we will focus first on the United States before investigating the politics of religion in Europe, the Middle East and Africa, Latin America, and the Asia-Pacific region. The themes of theocracy, sectarian conflict, fundamentalism, Islamism, secularism, and so-called "religious terrorism" will be investigated. Prerequisite(s): Any 100-level or higher POL or HIS course. Credits: 3
(3,0)

POL 393 Politics and Popular Culture

This course examines the influence of popular culture on political identity within the United States and across the globe. The relationship between the U.S. entertainment industry and the political system will be explored, while the second half of the course will focus on the impact of global popular culture on international relations. Various forms of pop culture will be addressed, including but not limited to: film, television, music, video games, novels, comics, political cartoons, jokes, blogging, fads, and fashion. Prerequisite(s): Any 100-level or higher HIS or POL course. Credits: 3
(3,0)

POL 395 Special Topics in Politics

This course offers instruction in special content areas not included in other Politic courses. All courses will include component focusing on the interplay between technology, globalization, and politics, either in U.S. or at the international level. This course will require extensive reading and research, focused on the selected topic. Students should consult the department before registering for any Special Topic course. Prerequisite(s): Any 100 level or higher HIS or POL course. Credits: 3
(3,0)

POL 398 Washington DC Internship

This option is available to students admitted to the Washington Internship Institute (WII) program that is affiliated with Farmingdale State College. A wide variety of internships are available in government offices, nonprofit organizations, and for-profit companies. Recent Farmingdale students have been placed at the IRS, the non-profit "No Labels," The Center for American Democracy, CNN, the Iraqi Embassy, and Capitol Hill offices. The four-day per week internship is supplemented by two courses: an internship seminar and an extra course selected by the student. Prerequisite(s): Approval by Study Abroad Office and Student's Department Chair Corequisite(s): Sophomore, Junior, or Senior status Credits: 3-12
(1,0,6 to 33)

POL 399 NYS Legislative Internship

For students participating in the full-time New York State Assembly and Senate Legislator Session Internship programs. Students work as staff members in their assigned State Legislator/Senator's office a minimum of 30 hours a week, conducting. During the internship, students participate in seminars, mock legislative sessions, and weekly research and written assignments. A written report on the internship experience is required of the student at the conclusion of the internship. Internships are open only to qualified junior and seniors with an overall grade point average of 3.0 or higher through a competitive selection process. Spring semester only. Note: Students must consult with the Campus Liaison Office to determine credit value to be assigned. Prerequisite(s): Permission of the Department Chair and Junior/Senior Level status and admission to NYS Assembly/Senate Internship Program.
Credits: 3 to 15
(1,0,6 to 42)

PSYCHOLOGY

PSY 101 Introduction to Psychology

This course is designed to present basic psychological concepts and to introduce students to the scientific study of behavior. Core topics include methods of psychological research, the biological bases of behavior, principles of learning, memory and cognition, personality, and psychopathology. Other selected topics to be covered would include the following: motivation and emotion, life-span development, social psychology, health psychology, sensation and perception, intelligence, human sexuality, statistics, and altered states of consciousness. Credits: 3
(3,0)

PSY 230 Gender Psychology

This course will examine sex role stereotypes and their effects, research on psychological sex differences, theories of male and female development, sex roles and social institutions - how perceptions of males and females are influenced by schools, religion, and the media; and male and female approaches to sexuality, marriage, and parenthood. Readings and class discussions will be used to help students achieve a greater understanding of the female and the male experience. Prerequisite(s): PSY 101. Credits: 3
(3,0)

PSY 231 Group Dynamics

This course blends theory and application of the principles of group interaction and development. This is not a lecture course. Through actively participating in class exercises, students will have an opportunity to develop their sense of self in relation to others and to develop skill in effective group functioning. The general content of the course involves group formation, communication, leadership, decision-making, problem solving, goal setting, power and influence, conflict and conflict resolution, cohesion norms, and stages of group development. Prerequisite(s): PSY 101. Credits: 3
(3,0)

PSY 232 Child Development

In this course the student will explore human development from preconception through the end of childhood. Course material will include historical and modern concepts of attitudes towards children, theories and models of child development, research methods in the study of children, genetics, prenatal development and influence, pregnancy, and birth. Within each age range the emphasis will be on factors influencing the physical, cognitive, social, and emotional development of the child. Developmental disorders, both physical and psychological, will also be explored. Prerequisite(s): PSY 101. Credits: 3
(3,0)

PSY 233 Adolescent Development

This course focuses on adolescent behavior. The emphasis is on growth and change-physiological, psychological/interpersonal and socio-cultural. Issues of particular concern to adolescents will be presented and discussed. Some selected topics are: peer pressure, the sexual issue, the availability of drugs, establishing a separate identity, dating and relationships and finally the transition to adulthood. Prerequisite(s): PSY 101. Credits: 3
(3,0)

PSY 234 Social Psychology

This course introduces the student to the study of how people influence each other. Topics to be covered include: liking and loving, aggression and violence, obedience and compliance, helping in emergencies, attitudes, prejudice and sexism. In addition, social perception and group behavior will be examined. Prerequisite(s):PSY 101. Credits: 3
(3,0)

PSY 237 Theories of Personality

The course will examine the concept of personality from four theoretical perspectives: psychodynamic, trait, learning, and humanistic. Representative theories of each perspective are discussed in terms of basic conceptualizations, methods of assessment, development, research and clinical applications. Prerequisite(s): PSY 101. Credits: 3
(3,0)

PSY 238 Psychology of Human Sexuality

This course presents a scientific foundation for the understanding of the psychological, physiological, social, and behavioral aspects of human sexuality. In addition to studying historical changes in sexual practices and attitudes, the course will review and evaluate current research, issues and concerns about sexuality, in order to provide contemporary and relevant curriculum material. Topics include psychosexual development, gender roles, sexual orientation, sexual anatomy, alternate methods of reproduction, pregnancy/birth, contraception, sexually transmitted diseases, sex education, sexism, love and attraction, sexual abuse, sexual dysfunctions, sex therapy, paraphilias, and sexuality through the life cycle. Prerequisite(s): PSY 101. Credits: 3
(3,0)

PSY 240 Health Psychology

Health Psychology is the study of psychological factors that affect health and illness. This course will apply a scientific and research perspective to the study of health promoting and health damaging behaviors. Using a biopsychosocial approach, behavioral patterns that result in cardiovascular disease, cancer, alcoholism, sexually transmitted diseases and other conditions will be explored. Course content will focus on stress and the immune system, stress management techniques, the health care system, risk taking, culture-bound syndromes, diversity issues, social support, and the role of the patient. Prerequisite(s): PSY 101. Credits: 3
(3,0)

PSY 242 Educational Psychology

This course will present current scientific theory and research related to formal learning environments. Individual differences in cognitive, social, and emotional development, and the implications for the teaching/learning process will be explored. These general areas will be addressed through more specific topics including growth and development, learning theories, moral development, motivation, and classroom management. In addition, issues related to teaching in a diverse society will be addressed. Note: Students cannot get credit for PSY 242 and 242W; PSY 242W can be used to fulfill the writing intensive requirement. Prerequisite(s): PSY 101. Credits: 3
(3,0)

PSY 245 Work Motivation

This course will examine work motivation, a central topic in the field of Industrial/Organizational Psychology. Students will be introduced to the major content and process theories of motivation including Maslow's Hierarchy of Needs, the Job Characteristics Model, Expectancy Theory, Equity Theory, and Goal Setting. The course will focus on the applications of these theories in the workplace, with an emphasis on job design, employee involvement, and reward systems. The interrelationships among motivation and key organizational outcomes such as satisfaction, engagement, organizational commitment, and performance will also be discussed. Prerequisite(s): PSY 101 Credits: 3
(3,0)

PSY 248 Statistics for Psychology

This course will introduce students to the basic descriptive and inferential statistics used in the behavioral and social sciences. Topics will include the organization of data, measures of central tendency and variability, correlation and regression, hypothesis testing, and various parametric and nonparametric tests of significance including t-tests, ANOVA, and chi-square analysis. Students will learn the interconnections between theory, research methods, and statistical techniques in order to use statistics to analyze experimental data and reach objective conclusions regarding research questions in the social sciences. The course will also provide an introduction to using statistical software for data summarization, presentation and analysis. Prerequisite(s): PSY 101 and MTH 110. Credits: 3
(3,0)

PSY 251 Developmental Disabilities: History and Service Provision

In this course, students will learn about the needs and challenges faced by people with developmental disabilities. The course will cover developmental disorders including, but not limited to, cerebral palsy, autism, epilepsy, and intellectual disabilities. Students will explore the social, cognitive and behavioral limitations associated with each disorder. This course will focus on understanding the complex needs of people with developmental disorders and the value of providing them with functional, supportive, and individualized services. The course will also explore the history of service provision to people with developmental disorders, the changes that have occurred in those services over the last four decades, and current standards of care. The course will outline the ethical and legal issues involved in service provision. Heavy emphasis will be placed on viewing developmental disabilities through functional and behavioral perspectives. Prerequisite(s): PSY 101 Credits: 3
(3,0)

PSY 252 Adult Development

This course will deal primarily with the psychological correlates of development and transitions during adulthood. Specifically, the course will focus on such topics as what it means to be an adult, the meaning of marriage, the meaning of work, being a parent, divorce, the empty nest syndrome, mid-life crisis, retirement, and facing death. Biological and social factors will be taken into consideration, as will psychological theories and individual responses to stages and passages throughout adulthood. Prerequisite(s): PSY 101. Credits: 3
(3,0)

PSY 253 Life Span Development

This course provides a comprehensive overview of normal human development throughout the life span. It will apply a scientific and research perspective to understanding both age-related change and consistency. The course will examine physical, cognitive, social and emotional development at every stage of life, with an emphasis on continuity and discontinuity of development as we progress from one stage of life to the next. Additionally, students will learn about those theories and research methods which are most pertinent to the study of lifespan development. Prerequisite(s): PSY 101. Credits: 3
(3,0)

PSY 255 Topics in Psychology

This course will enable students to explore a specific subfield or topic of interest in Psychology, in a challenging atmosphere, with emphasis on student participation and written assignments. The subject for a particular semester will be announced prior to registration. Possible topics include but are not limited to: Consumer Behavior, Health Psychology, Psychology and the Law, Sport Psychology, and Parapsychology. Prerequisite(s): PSY 101. Credits: 3
(3,0)

PSY 257 Teaching of Psychology

This course is designed to expose students to current thinking about teaching and learning and the underlying content in the field of psychology. In addition, it aims to promote understanding of psychology as a profession as it relates to a career in academia. This is accomplished by offering students a unique opportunity to attend a professional conference on the Teaching of Psychology. During the conference students will have the unique opportunity to listen to, and participate in presentations on some of the newest ideas in the teaching of Psychology. In many cases the presentations they hear will be the first time the ideas have been presented in public. Students will be able to observe and interact on both a formal and informal level with a group of professional Psychologists. This course is designed especially for students who have expressed an interest in continuing in the field of Psychology and/or teaching. However, it can be a valuable experience for virtually all students, regardless of their career plans. Note: Students cannot get credit for PSY 257 and 257W; PSY 257W can be used to fulfill the writing intensive requirement. Prerequisite(s): PSY 101.
Credits: 3
(3,0)

PSY 260 Research Methods

This course will present the scientific method within the context of applied psychology. Research techniques and methods will be examined for the formulation of hypotheses, development of testable objectives, experimental design, subject selection, data collection, data analysis and interpretation, and report preparation. This course will focus on laboratory based methods and simple statistical procedures for the analysis of data. Students will apply the concepts and methods in laboratory exercises. Prerequisite(s): PSY 248. Credits: 4
(4,0)

PSY 264 Introduction to Biopsychology

This course is designed to introduce students to the biological underpinnings of behavior. The first part of the course will focus on building a foundation in neuroscience and will cover chapters on neuroanatomy (organization of the nervous system, major brain structures and their functions), neural signal transmission (how neurons communicate with each other) and sensory and motor systems (how the nervous system processes information and interacts with the environment). The second half of the course will be dedicated to understanding the relationship between complex human behaviors and brain functions, and will cover topics such as learning and memory, aging, hormones and sex, emotion, stress, health and drug addiction in the brain. Prerequisite(s): PSY 101 Credits: 3
(3,0)

PSY 265 Culture and Cognition

This course explores the methods, research, and theory in the field of culture, cognitions, and psychology in general. The main aim of the course is to introduce and familiarize students with the role of culture across a variety of psychological areas including perception, cognition, emotion, developmental processes, as well as social and abnormal behavior. The course is organized in three, inter-dependent modules. The first module concerns the exploration of culture as a determinant of one's socialization and development of personality. The second module provides an excursion into the role of culture in cognition; the way we think, perceive and organize our knowledge. The third module explores anthropological works on morality, religion, ritual, and emotion. Prerequisite(s): PSY 101 Credits: 3
(3,0)

PSY 272 Cognitive Psychology

This course covers the psychological study of human information processing in terms of structure, process, and application. The representation of knowledge in memory is addressed as is the cognitive processes used for information acquisition, information retrieval, and forgetting. The cognitive processes of attention, pattern recognition, language, comprehension, and thinking will be reviewed in terms of their application to cognitive activities such as decision-making, reasoning, problem solving, and creativity. The application of cognitive theory to artificial intelligence is also discussed. Prerequisite(s): PSY 101. Credits: 3
(3,0)

PSY 280 Preparation for Graduate Training in Psychology

This course will provide those Applied Psychology majors who are considering graduate training in psychology with the opportunity to explore the various specialties in psychology (and related fields) as well as the graduate training required by each subfield. Students will explore their own interests while simultaneously researching and being provided with information regarding the many types of graduate training available. Self-assessment regarding standardized entrance examinations such as the GRE will be provided. Developmental plans will be generated based on self-assessment results. Applied Psychology majors who are considering graduate training are encouraged to take this one credit elective course during their sophomore year of the program. Course grading is Pass/Repeat. Prerequisite(s): PSY 101, Applied Psychology major Credits: 1
(1,0)

PSY 300 Forensic Psychology

This course introduces the student to the study of forensic psychology, a discipline that applies psychology to the law and the criminal justice system. Topics to be covered include: the psychologist's role in the criminal courts, ethical dilemmas of psychologists working in the criminal justice system, psychological perspective on the nature of criminality and the investigation of crime, criminal profiling, the effects of psychological empirical research on the outcome of criminal trials, and the psychology of the police, witnesses, offenders, and victims. Other new research topics in the field, such as the use of brain fingerprinting technology to determine criminal culpability will also be explored. Students cannot receive credit for both CRJ 300 and PSY 300. Prerequisite(s): PSY 101 or CRJ 100 Credits: 3
(3,0)

PSY 301 Learning

This course examines the principles and theories of learning including the methodology and evaluation of research pertaining to learning processes. Topics will include a broad range of learning paradigms, from relatively simple processes such as classical conditioning and operant conditioning, to more cognitively complex processes such as concept formation and schema development. The research describing information acquisition, transfer, and forgetting will be reviewed. In addition, the influence of conditions such as motivational factors, will be examined. Prerequisite(s): PSY 101 Credits: 3
(3,0)

PSY 304 Multicultural Psychology

Reflecting the 21st century global theme of acculturation, PSY 304 will focus on the ways in which the study and practice of psychology intersect with race, culture, and diversity. Topics include racial/ethnic/religious group differences, cultural norms, gender and sexual orientation issues, family, structure, and identity development. Primary focus will be given to the ways that race and culture contribute to disparities in access to mental health treatment as well as differences in beliefs about mental illness and its treatment. Consistent with an applied psychology approach, the student will develop an understanding of how diversity issues affect the workplace, i.e., discrimination in hiring/firing practices, affirmative action laws, multicultural competence, and sensitivity training. Prerequisite(s): PSY 101. Credits: 3
(3,0)

PSY 307 Psychology of Women

This course is about being female in American culture. The purpose of the course is to examine the lives of girls and women from a feminist psychological perspective. It addresses the biological, psychological, and socio-cultural factors influencing women's behavior, thoughts, and feelings. The course is "woman-affirming" as it will examine and validate women's experiences and perspectives. The course will highlight how race, class, and sexual orientation intersect with gender to affect women's lives. Topics will include: behavioral and psychological gender differences and their origins; concepts of femininity and gender stereotypes; pregnancy, childbirth and motherhood; women, achievement and work; violence against women; women and mental health (disparity in diagnosis and treatment); and feminist psychology. Prerequisite(s): PSY 101 or PSY 131 Credits: 3
(3,0)

PSY 311 Organizational Behavior

This upper-division course presents the concepts of organizational behavior and structure as well as topics relating to motivation content and process theories; group communications and dynamics; decision making; causes and resolutions of organizational conflicts; and factors pertaining to influence, power and politics in organizations. Note: Students cannot get credit for PSY 311 and 311W; PSY 311W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the Psychology Department. Prerequisite(s): BUS 109 or PSY 101. Credits: 3
(3,0)

PSY 312 Psychology of Leadership

In this course we will examine leadership theories and approaches to leadership as well as personal and organizational leadership development. The essential knowledge, skills, and abilities of effective leaders are examined, such as managing conflict, facilitating communication, and leading groups and teams. Students will be encouraged to examine their own leadership potential as they complete self-assessments and participate in leadership exercises. This course provides students with a greater understanding of the theory, research, techniques, and current and future issues in the field of leadership through an experiential learning approach. Topics include the trait approach, the skills approach, ethics, transformational leadership, gender and leadership, the relationship between culture and leadership, and team leadership. Prerequisite(s): PSY 101 and Junior-level status. Credits: 3
(3,0)

PSY 315 Abnormal Psychology

In this course the student will learn about concepts, theories, and issues in psychopathology (the study of mental illness and behavioral disorders). Topics may include historical background, mental health professionals, legal issues, normality/abnormality, etiology/assessment/ diagnosis/therapy, anxiety/stress/depression, personality disorders, sexual deviance, schizophrenia, neurological dysfunction, substance abuse, and psychophysiological disorders. The applications of psychology to personal problem solving will also be explored.
Prerequisite(s): PSY 101   Credits: 3
(3,0)

PSY 316 Atypical Development

In this course students will explore developmental deviations that result in disorders of childhood focusing on neurodevelopmental disorders (intellectual disability, autism spectrum disorder, attention-deficit/ hyperactivity disorder, and specific learning disorder) and psychopathology (anxiety, mood, and conduct disorders). Developmental theories will be utilized to analyze disorders at the genetic, brain, behavioral, and cognitive levels. Emphasis will be placed on examining neurobiological and environmental factors contributing to disorders of childhood. The final portion of the course will focus on how atypical development may contribute to our understanding of typical development. Prerequisite(s): PSY 232   Credits: 3
(3,0)

PSY 317 Organizational Development

This course examines the behavioral science based theories, strategies and interventions that organizations use to execute planned, organization-wide changes to increase organization effectiveness and health. Theoretical models and processes will be reviewed and used to evaluate an organization's capacity to improve and change. The course is structured to cover the background, process, and content of organizational development. Real–world examples of organizational development will be presented to illustrate current and best practices used by modern organizations. Prerequisite(s): PSY 101   Credits: 3
(3,0)

PSY 320 Sensation and Perception

This course will survey the experimental psychology of sensory and perceptual process and behavior. Theories and processes relating the transformation of physical energies (such as light and sound) to psychological experiences (such as seeing object and hearing noises) will be discussed. While the research examined will primarily focus on the visual and auditory systems, the other sensory systems will be discussed as well. The emphasis will be on the contribution of behavioral science to understanding subjective experience of physical and social phenomena. Prerequisite(s): PSY 101.   Credits: 3
(3,0)

PSY 321 Child Cognitive Development

This course will examine how children's thinking develops from infancy through early childhood. Biological, social-cultural, and information processing perspectives will be reviewed in light of how cognition develops and changes over the early stages of life. This course will cover various domains of cognition including executive functioning, memory, language, intelligence, and social cognition. Finally, different populations will be considered to better understand the unique role of not only nature and nurture, but also how the two interact to influence development. Prerequisite(s): PSY 232 with a grade of C or higher
Credits: 3
(3,0)

PSY 324 Psychological Measurement and Assessment

An analysis of the theory and practice of psychological measurement and assessment including the implications of psychological measurement in society and institutions such as schools, the workplace, clinical populations and other groups with special needs. Topics will include overview and history of the field, foundations of psychological testing and psychometrics, the assessment of ability, the assessment of personality, the assessment of interest and vocational choice, and ethical /social/cultural issues of psychological assessment.
Prerequisite(s): PSY 101.   Credits: 3
(3,0)

PSY 325 Principles of Survey Research

This course covers the basic principles of survey research related to the design, evaluation, implementation, and analysis of surveys. Students will be introduced to the skills and resources needed to conduct quality survey research. The course is focused on the Tailored Design Method and emphasizes the customization of survey procedures for each survey situation. The course will cover the complete procedure of survey research including an introduction to different types of surveys, the development of survey instruments, an evaluation of reliability and validity, guidelines for implementation, sampling procedures, methods to increase response rate and reduce errors, and data entry, analysis, and reporting. Prerequisite(s): PSY 348   Credits: 3
(3,0)

PSY 326 Introduction to Behavioral Health Science

Behavioral Health Science is the scientific study of the ways that human behavior can affect health/mental health status and health/mental health outcomes. Introduction to Behavioral Health Science will explore how human actions, cognitions, relationships, interactions and systems affect health, well-being, and quality of life. This course will examine the integration of mental health care and health care from a historical, practical, and policy perspective. Students completing the course will understand the significance of health care policy changes as they relate to psychology, and the dramatic shift in thinking about how and where health/mental health care can be integrated and administered.
Prerequisite(s): PSY 315   Credits: 3
(3,0)

PSY 328 Introduction to Human Factors

This course will provide an introduction to the field of human factors psychology. Human factors psychology is the application of the body of scientific facts about human characteristics to the design, operation and organization of human machine systems. Human-machine systems can range from simple consumer products to complex arrangements of hardware, software and personnel, such as aviation systems. Human factors knowledge, methods and techniques will be surveyed with an emphasis on ensuring that the systems, equipment, personnel tasks and work environment are compatible with the human sensory, perceptual, cognitive and physical attributes of the personnel who function within the human machine system. Prerequisite(s): PSY 101.
Credits: 3
(3,0)

PSY 330 Organizational Training and Development

An upper level offering, this course will provide a greater understanding of the theory, research, techniques, and current and future issues in the field of organizational training and development through an experimental learning approach. Topics shall include training systems, needs analysis, organization intervention, program evaluation, adult learning theory, cognitive issues, conditions for learning transfer, instructional techniques and current social and organizational issues in training.
Prerequisite(s): PSY 101.   Credits: 3
(3,0)

PSY 331 Industrial / Organizational Psychology

Students will explore how the science and practice of psychology is applied in the world of work and organizations. Among the topics that will be examined are the history and research methodology of industrial/organizational psychology, job analysis, employee selection, performance evaluation, training, work motivation, job satisfaction, leadership, group dynamics, and organizational development. The course will highlight emerging trends in the modern workforce and examine how these changes will impact research and practice in today's organizations. Students will examine the factors influencing cross-cultural diversity and globalization, the theoretical and practical implications of these workforce trends, and how current organizational theories and practices apply to cultures outside of the United States. Implications for the full range of topics discussed in the course will be examined including how cultural diversity and globalization affect employee selection procedures, group dynamics, preferences for leadership, training needs, work motivation, and organizational development. Prerequisite(s): PSY 101. Credits: 3
(3,0)

PSY 340 Behavior Analysis Modification

An analysis of the general principles, theories and application of conditioning and learning in humans. The application of the theories of behavioral analysis to human problems will be explored. Behavioral interventions using the principles of classical conditioning, operant conditioning and modeling will be presented. Particular emphasis will be placed on behavioral analysis and intervention in settings such as mental health institutions, education, business organizations and families. Prerequisite(s): PSY 101. Credits: 3
(3,0)

PSY 345 Human Factors: Systems Analysis and Design

This course will address the systems engineering approach to system design and the role of the human factors professional in that process. The human methods and techniques that are applied to the development of system requirements, allocation of functions to human and machine subsystems, the analysis of human task and work requirements, analysis of staffing requirements, the design control centers to support the human tasks, and methods of system evaluation, verification, and validation will be examined. This course will require students to apply the concepts and methods discussed to an actual design project as part of a design team. Prerequisite(s): PSY 101. Credits: 3
(3,0)

PSY 348 Statistics for Psychology

This course will examine the basic descriptive and inferential statistics used in the behavioral and social sciences. Topics will include the organization of data, measures of central tendency and variability, correlation and regression, hypothesis testing, and various parametric and nonparametric tests of significance including t-tests, ANOVA, and chi-square analysis. In the computer lab component, students will focus on the interconnections between theory, statistical techniques, and research methods in order to identify the appropriate statistical tests to analyze data and reach objective conclusions regarding research questions in the social sciences. Computer lab sessions will also provide practice in using statistical software for data summarization, presentation, and analysis. Prerequisite(s): PSY 101, MTH 110 and Junior level status Credits: 4
(4,0)

PSY 350 History of Psychology: Study Abroad in Europe

This course will provide a unique academic and cultural excursion into the work of some of the pioneering philosophers and psychologists who shaped the development of psychology. The on-campus classroom portion of the class will cover a variety of topics including but not limited to: tracing the evolution of psychology as a science; exploring the role of European philosophers, physiologists and psychologists in shaping psychology. The study-abroad portion will expose students to the historical and cultural context of those pioneers that helped to form their philosophies and theories. Some of the pioneers whose psychological legacy will be discussed in great detail are particularly of British, German, Swiss, or Austrian origin. Prerequisite(s): PSY 101 and permission from the Department Chair Credits: 3
(3,0)

PSY 360 Research Methods

This course will present the scientific method within the context of applied psychology. Research techniques and methods will be examined for the formulation of hypotheses, development of testable objectives, experimental design, subject selection, data collection, data analysis and interpretation, and report preparation. This course will focus on laboratory based methods and simple statistical procedures for the analysis of data. Students will apply the concepts and methods in laboratory exercises. Prerequisite(s): PSY 348 Credits: 4
(4,0)

PSY 405 Ergonomics and Biomechanics

This course will examine the scientific knowledge related to human ergonomics, anthropometry, and biomechanics. The measurement of human work, physiological characteristics and movement will be presented. The application of such knowledge to the design of devices, systems, and environments for use by people will be discussed. The contribution of ergonomics and biomechanics to the improvement of safety, productivity, and quality of work will be presented. Prerequisite(s): PSY 328. Credits: 3
(3,0)

PSY 410 Individual and Group Counseling

This course will explore what counseling is, who is a counselor, and what is known about changing behavior in both individual and group settings. Historical concepts of counseling will be examined as well as the scientific foundations of counseling. Research findings related to counseling techniques will be presented and analyzed. The course will focus on a variety of counseling approaches, the therapeutic relationship, legal and ethical issues, and the realities of therapeutic practice. Cultural influences on behavior will be emphasized as a way of understanding and helping clients from diverse backgrounds. Prerequisite(s): PSY 315. Credits: 3
(3,0)

PSY 414 Applied Personnel Psychology

This upper level offering is designed to provide students with the tools for understanding the underlying theory, research and techniques of personnel psychology. It will provide the background for understanding the practical application of the concepts and techniques studied. This will be accomplished through a combination of lectures, group projects involving application of the principles of personnel psychology, group presentations of the projects and classroom exercise. Prerequisite(s): PSY 331. Credits: 3
(3,0)

PSY 420 Advance Topics in the Study of the Human Mind and Cognition

This course will provide an excursion into the most current approaches and perspectives in the field of cognitive science, neuroscience, and cultural studies. The class will cover a variety of topics such as: embodied cognition, sensory deprivation and its effects on cognition, multisensory integration, evolution of cognition and culture, and the role of cognition in rituals and religions, morality, and other topics. Prerequisite(s): PSY 272 Credits: 3
(3,0)

PSY 430 Introduction to School Counseling

In this course students will be introduced to the role of the school counselor and the relationship of school counseling to the educational mission of school. The following school counseling topics are addressed in this course: perspectives and practices for school counseling in the 21st century, multicultural and diversity issues impacting school counseling, and an overview of counseling theory as applied to the child and adolescent in a school setting. Candidates will explore the school counselor's work in the context of leadership, advocacy, collaboration, consultation, coordination of services, multiculturalism and working with diverse student populations, technology and the use of data to inform decisions. Prerequisite(s): PSY 315 with a grade of B- or higher.
Credits: 3
(3,0)

PSY 440 Human Factors Psychology/Internship/Senior Project I

This course will provide seniors in the Human Factors Concentration with the opportunity to apply human factors knowledge and methods in an actual work environment. A variety of options will be available for completion of this course: internship, research assistantship, or independent project. In an internship, the student will work in a local business, laboratory, or service organization. As a research assistant, the student will work with a faculty member as an assistant in their ongoing research or consulting. Alternatively, students may develop an independent project under the supervision of a faculty member. The selection of which option is best will be made by the student and his/her advisor based on which best meets the student's educational and career goals. Regardless of the option selected, each student will attend seminars and complete a research or design project.
Prerequisite(s): Senior Status in Human Factors Psychology Concentration. Credits: 3
(1,0,6)

PSY 441 Human Factors Psychology Internship/Senior Project II

This second Internship/Senior Project course will provide seniors in the Human Factors Concentration with the opportunity to apply human factors knowledge and methods in an actual work environment. A variety of options will be available for completion of this course: internship, research assistantship, or independent project. In an internship, the student will work in a local business, laboratory, or service organization. As a research assistant, the student will work with a faculty member as an assistant in their ongoing research of consulting. Alternatively, students may develop an independent project under the supervision of a faculty member. The selection of which option is best will be made by the student and his/her advisor based on which best meets the student's educational and career goals. Regardless of the option selected, each student will attend seminars and complete a research or design project. Prerequisite(s): PSY 440.
Credits: 3
(1,0,6)

PSY 442 Applied Psychology Senior Project: Professional Development

This course will provide seniors in the Applied Psychology Program with the opportunity to apply psychology knowledge and methods in an actual work environment. A variety of options will be available for completion of this course: internship, research assistantship or independent project. In an internship, the student will work in a local organization. As a research assistant, the student will work with a faculty member as an assistant in the faculty member's ongoing research and/or consultation with organizations. Alternatively, the student may develop an independent project under the supervision of a faculty member. The selection of which option is best will be made by the student and his/her advisor based on which option best meets the student's educational and career goals. Regardless of the option selected, each student will attend seminars and complete a research or application project. Prerequisite(s): Senior Status in Applied Psychology Bachelor's Program or Permission of Department Chairperson
Credits: 3
(1,0,6)

PSY 443 Applied Psychology Senior Project II:Career Planning

This second Internship-Senior Project course will provide seniors in the Applied Psychology Program with the opportunity to apply psychology knowledge and methods in an actual work environment. A variety of options will be available for completion of this course: internship, research assistantship or independent project. In an internship, the student will work in a local organization. As a research assistant, the student will work with a faculty member as an assistant in the faculty members' ongoing research and/or consultation with organizations. Alternatively, the student may develop an independent project under the supervision of a faculty member. The selection of which option is best will be made by the student and his/her advisor based on which option best meets the student's educational and career goals. Regardless of the option selected, each student will attend seminars and complete a research or application project. Prerequisite(s): Permission of department Chairperson Credits: 3
(1,0,6)

RESEARCH ALIGNED MENTORSHIP

RAM 101 First Year Seminar

This course assists new students in transitioning from high school to college. It is reserved exclusively for students in the Research Aligned Mentorship (RAM) Program. Through group work, active listening, and class discussions, students will gain invaluable experiences navigating Farmingdale by engaging in writing, problem solving, and public speaking. The students will also learn to turn to each other and to RAM program faculty and staff for support. Note: Students taking this course may not receive credit for FRX 101. Credits: 1
(1,0)

RAM 102 Collaborative Learning Workshop

Collaborative Learning Workshops are an integral part of the Research Aligned Mentorship (RAM) program. In the Workshops, students master material in challenging foundational courses such as Mathematics. Faculty facilitators provide worksheets that students – organized in small collaborative working groups – use to solve problems while deepening their understanding of course material, acquiring strong study skills, and developing support groups. Enrollment is restricted to entering first year students who have been selected to participate in the Research Aligned Mentorship (RAM) program and who are enrolled in a foundational course to which a collaborative learning workshop is attached.   Credits: 1
(1,0)

RAM 201 Sophomore Year Introduction to Research

RAM 201 is a course reserved exclusively for students in the Research Aligned Mentorship Program (RAM) that will introduce sophomores to research and graduate study in preparation for a faculty-mentored research experience. Throughout the course, students will be responsible for written reflections on scholarly journal articles. The course will culminate in a semester-long project that engages the student in writing a research proposal that requires students to read and summarize scholarly articles accessed through the college's electronic library databases. The research proposal will be evaluated as a poster presentation which is delivered orally in class at the end of the semester. Prerequisite(s): RAM 101   Credits: 1
(1,0)

RAM 301 Transfer Year Introduction to Research

RAM 301 is a course reserved exclusively for students in the Research Aligned Mentorship Program (RAM) that will introduce transfer students to research and graduate study in preparation for a faculty-mentored research experience. Throughout the course, students will be responsible for written reflections on scholarly journal articles. The course will culminate in a semester-long project that engages the student in writing a research proposal that requires students to read and summarize scholarly articles accessed through the college's electronic library databases. The research proposal will be evaluated as a poster presentation which is delivered orally in class at the end of the semester. Prerequisite: Transfer Student Junior Level Status. Credits: 1
(1,0)

RAM 303 Research Experience

This hands-on research experience with a faculty mentor is the culminating experience for students enrolled in the Research Aligned Mentorship (RAM) program. Students will be placed in research experiences on the Farmingdale Campus or off-campus in major universities, research laboratories, businesses, industry, government, horticultural gardens, and other settings that fit their academic interests and career goals. Credits: 3
(0,0,6)

RAM 306 Research Experience

This hands-on research experience with a faculty mentor is the culminating experience for students enrolled in the Research Aligned Mentorship (RAM) program. Students will be placed in research experiences on the Farmingdale Campus or off-campus in major universities, research laboratories, businesses, industry, government, horticultural gardens, and other settings that fit their academic interests and career goals. Prerequisite(s): RAM 201 or 301 Credits: 6
(0,0,15)

RAM 309 Research Experience

This hands-on research experience with a faculty mentor is the culminating experience for students enrolled in the Research Aligned Mentorship (RAM) program. Students will be placed in research experiences on the Farmingdale Campus or off-campus in major universities, research laboratories, businesses, industry, government, horticultural gardens, and other settings that fit their academic interests and career goals. Prerequisite(s): RAM 201 or 301 Credits: 9
(0,0,24)

RAM 312 Research Experience

This hands-on research experience with a faculty mentor is the culminating experience for students enrolled in the Research Aligned Mentorship (RAM) program. Students will be placed in research experiences on the Farmingdale Campus or off-campus in major universities, research laboratories, businesses, industry, government, horticultural gardens, and other settings that fit their academic interests and career goals. Prerequisite(s): RAM 201 or 301 Credits: 12
(0,0,33)

SOFTWARE TECHNOLOGY

SET 101 Fundamentals of Software Technology

This course provides students with an understanding of modern software technology such as Operating Systems (OS), Virtual Memory Systems, and Android OS. A distinction is made between modern and legacy operating systems, such as Unix and Windows, in terms of security, network compatibility and usability in the design and development of modern application software. The course addresses issues with utility programs, desktop and mobile applications development, and information systems development essential for the modern corporate world. Elements of multimedia technology, databases basics and database management systems development, apart from computer networks and security are presented. Credits: 3
(3,0)

SET 105 Introduction to Symbolic and Logic Programming

This course introduces students to the basics of programming logic and its real-life applications from a software technology perspective. The design and development of symbolic and logic programming for various computer science structures is a major focus for the course. The languages that support symbolic structures such as LISP and Prolog are covered in the context of the syntax and semantics of these scientific programming languages.   Credits: 3
(3,0)

SET 205 Introduction to Artificial Intelligence and Robotics Technology

This course introduces students to the basics and applications of artificial intelligence and robotics. The course covers knowledge representation, autonomous systems, common sense techniques as well as their practical implementation in autonomous driving systems and speech recognition. To enforce the foundational understanding of the subject matter, multi agents with their navigational approaches and topological path planning strategies are presented. Prerequisite(s): SET 101 Credits: 3
(3,0)

SET 220 Internetworking

The course will provide an in-depth understanding of internet and its applications. Lab projects will provide hands-on experience in network configuration, installation and utilization. The topical outline includes the following: internet mechanism, communication on the internet, application of internet, use of search engines, online communication, internet security, hardware for network communication, and control computer networks. Prerequisite(s): EET 104 Credits: 3
(2,2)

SET 230 Wireless Technology and Applications

The course will focus on developing the skills needed to design, build and utilize wireless networks. The topics will include function of a wireless system, basic technologies for wireless, wireless applications, wireless internet, hardware and standards for wireless networks, and building and maintaining a wireless system. Prerequisite(s): EET 104 Credits: 3
(3,0)

SET 310 Software Application for ERP Solutions

As the first of a sequence of courses, this course will provide an in-depth study of software applications in a variety of industries. Overview of engineering and business processes, concepts in enterprise resource planning and integration, and software applications for such functions as manufacturing, product life cycle management, and supply chain management will form the key topics. The focus of the course is the application, configuration of industry standard software and how to customize it for a variety of applications. Prerequisite(s): BCS 260 Credits: 3
(3,0)

SET 320 Software Application/Supply Chain Management

The objective of the course will be to develop skills and competencies to plan and implement supply chain management concepts. The primary focus will be to define, configure and apply supply chain management software. Topical areas covered will include vendor- customer roles, enterprise systems, production planning and control, capacity planning, materials requirements planning, purchasing, inventory control, shop floor control, sales and distribution, and warehouse operations and management. Industry standard software such as SAP will be used for configuration, customization and application for Supply Chain Management. Prerequisite(s): SET 310 Credits: 3
(3,0)

SET 400 Network Planning and Implementation

This course will focus on developing skills needed to plan and implement networking systems. As a higher level course, it will prepare the students to design, build and implement a network system. The course assumes that the student will have basic understanding of network requirements, network architecture, security of network systems, selection on network technologies, engineering cost estimation, and project implementation. Laboratory projects will focus on real world experience in networking planning and implementation. Prerequisite(s): EET 440 or BCS 208 Credits: 3
(2,2)

SET 402 Software Applications in Statistical Analysis and Manufacturing Management

The objective of this course is to develop competencies in the application of software for gathering and analysis of information, and preparation of scientific, technological and management reports in such functions as engineering manufacturing, banking, pharmaceutical and regulatory controls. Standard application software such as SAS will be used for analysis and reporting. Prerequisite(s): MTH 110 and SET 310 Credits: 3
(3,0)

SET 405 Software Applications in Manufacturing and Service

The objective of the course will be to develop skills and competencies to apply software for such service functions as quality management and finance, and human resources management in an enterprise. The primary focus will be to define, configure and apply software for service functions in manufacturing and service industries. Industry standard software such as SAP will be used for application customization and configuration. Prerequisite(s): SET 310 Credits: 3
(3,0)

SET 410 Senior Project

This is a capstone course which will require the student to utilize the skills and competencies gained in the program to develop and implement real world projects. With the guidance from the instructor, students may address specific problems in a company or industry and develop solutions involving software applications. Using the skills and competencies gained in software applications, the student will be able to determine research methodologies, selection of a project setting limitations for a project, defining the problem, conducting an industry study, establishing process flow for the configures system, going alive with the new system, turning over the control of the system, and providing maintenance and service support. Note: Students cannot get credit for SET 410 and 410W; SET 410W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the Automotive & Mechanical Engineering Technology Department Prerequisite(s): Senior Status and Departmental Approval. Credits: 3
(3,0)

SPORT MANAGEMENT

SMT 110 Introduction to Sport Management

An investigation into the scope of the sport industry; a growing major business enterprise in the United States and in much of the world. Functions of management, skills and attributes required of a sport manager, and roles of a manager are examined and researched. Attention focuses on how the managerial process relates to sport organizations and their products. Students become acquainted with career opportunities in the sport management field. Note: Students must achieve a C or higher in this class to continue on in any course to which it is a prerequisite. Credits: 3
(3,0)

SMT 215 Sport Information Management

The effective management of information is essential to successful business and athlete development in sport related fields. Sport information directors use software to track stats at every level, including high school, college and professional, and then transmit these stats to national organizations. Computer-aided facility, management, financial, operational and accounting systems for the running of sport franchises and fitness clubs, salary capology, and handicap computational systems are just a few of the other applications for information management that will be addressed in this class. Prerequisite(s): BCS 102 Credits: 3
(3,0)

SMT 220 Media and Sport

The course will begin by tracing the history of sport media in the United States beginning with the reporting of early American sports via newspapers, through the radio and television ages, the role cable television played in expanding sports viewership, ending with an analysis of regional sports networks, social media and the on-line streaming of sports. The course will examine the role the Sports Broadcasting Act of 1961 has played in shaping modern media rights contracts including its influence on rights fees and coverage. Additional topics include managing talent and production staff, examining commercial pressures on both athletes and sport properties, and the global sport media expansion so the students can examine current problems while analyzing possible solutions. Prerequisite(s): SMT 110 with a grade of 'C' or higher Credits: 3
(3,0)

SMT 225 Sport Marketing

An investigation into the decisions necessary to plan, develop, implement and control integrated sports marketing programs. Attention will be directed towards each major element of the marketing industry--advertising, promotion, public relations and sponsorships. The emphasis will be on the marketing of professional and collegiate athletes. Included will be the use of marketing for teams, leagues and special events. The course will also focus on negotiations, contracts and the role of the media. Prerequisite(s): SMT 110 with a grade of 'C' or higher Credits: 3
(3,0)

SMT 230 Social Media in Sport

This course will explain how social media applications are dramatically changing the sports world, sport business, spectating and therefore the marketing of sports. These changes have appeared in a very short period of time, creating a host of implications for sports media processes and sports organizations as they grapple with athletes' use of these media channels. In addition, the course explores the concepts, tools, and issues surrounding social media and marketing. Current trends in social media will be explored and the course will provide students with a balance between theory and experience. Students will learn about traditional sport marketing/public relations principles as they relate to social media. Prerequisite(s): SMT 110 with a C or higher. Credits: 3
(3,0)

SMT 240 Sponsorship, Media and Box Office Administration

This course builds upon SMT 225 Sports Marketing through a more in-depth focus on the revenue-generation components of the sport industry. Students will learn about non-sales selling, the ticket sales process, customer service and customer relationship management, the impact of analytics on ticket pricing, the secondary ticket market, the impact of technology on ticket operations, sponsorship sales, and career opportunities in sales. Students will gain real world experience in ticket sales, promotion and sponsorship sales. Students will engage in a sales training program, and will be challenged to sell tickets and sponsorships. Prerequisite(s): SMT 110 with a grade of 'C' or higher and BUS 131 or SMT 225 Credits: 3
(3,0)

SMT 304 Sport Finance

This course grounds students in the real world of financial management in sport, showing them how to apply financial concepts and appreciate the importance of finance in sport management and operations. Through classroom presentations, discussions and course assignments, the student will be provided with a solid foundation in financial management, managerial economics, and statistics as they relate to the sport industry. The course content will focus primarily on the spectator sport segment of the sport industry (professional sports, collegiate athletics, Olympic sports, sport facilities, events, and sport agencies). Some of the topics that will be covered are capital, budgeting, asset allocation, market structures, financing of venues including subsidies, salary caps and the effect of collective bargaining agreements on sport organizations. Prerequisite(s): SMT 110 with a grade of 'C' or higher and BUS 102 Credits: 3
(3,0)

SMT 311 Sport Law

A study of legal issues affecting all aspects of sports, including college, professional and recreational activities. Future professionals within the realm of physical activity and sport need to be aware of the law the many implications it brings to their chosen fields. This class is designed to provide an introduction to various aspects of the law and its influence on sport and physical activity. Prerequisite(s): BUS 202 Credits: 3
(3,0)

SMT 320 Athletic Administration

This course focuses on the organization, administration, and management of physical education and sport. Attention will be directed towards intercollegiate and interscholastic athletics, professional sports organizations and various recreational programs. Emphasis will be placed on organization and leadership theories and program development. The management and supervision as well as the budgeting and purchasing process in the management of athletic facilities will be discussed. Issues of law, risk management and ethics as they pertain to athletics will be explored. Prerequisite(s): BUS 109 Credits: 3
(3,0)

SMT 323 Contracts, Negotiations and Collective Bargaining Agreements in Sport

This course will focus on sports contracts, negotiations of such contracts between teams and players and their agents, negotiation of contracts known as collective bargaining agreements between major sports leagues and player associations, and an overview of certain collective bargaining agreements, including salary caps. At the completion of the course, the student should have a greater understanding of how contracts and the collective bargaining agreements drive the business of sports and the problems faced by management of sports franchises. Prerequisite(s): SMT 110 with a grade of 'C' or higher and BUS 202 Credits: 3
(3,0)

SMT 326 Sport Writing

In this course students will learn skills in the identification of legitimate angles for sport stories, how to report sport events, develop sport feature stories, and write sport opinion pieces, both for print publication and the web. Students will submit written articles, be required to write on deadline, and develop skills in interviewing. Students will deconstruct published stories and acquire an understanding of the process of assembling a well researched and expertly-crafted sport story. Note: Students completing this course may not receive credit for PCM 326. Prerequisite(s): EGL 102 Credits: 3
(3,0)

SMT 330 Nutrition and Sports

This course will investigate the current knowledge of the nutritional needs of today's athlete, including special requirements for certain organic and inorganic foods. Topics include energy, nutritional and fluid needs during stress periods. Students will discover the role of nutrition and exercise in reducing the risk of chronic disease. Furthermore, the role of a balanced diet in the prevention of activity-based injuries and weight control will be explored. Other topics of special interest and current research will be discussed. Prerequisite(s): BIO 123 Credits: 3
(3,0)

SMT 335 Special Topics in Sport

The course will be offered occasionally and can be taken more than once as titles change. The course will provide a special topic for students as a Sport Management elective course. It will pertain to a general sport topic or a current event that is occurring in the sport industry. Prerequisite(s): SMT 110 Credits: 3
(3,0)

SMT 340 Sport Facility Management

This course focuses on athletic facilities and the complex management involved. Topics include the development, operation, and financing as well as the management and supervision of athletic facilities. Attention will be directed towards public and private arenas, colleges and universities, and health clubs and stadiums. Other topic of special interest and current research will be discussed. Prerequisite(s): BUS 109 Credits: 3
(3,0)

SMT 350 International Sport Management

This course will prepare students for Sport Business and Management on an international scale, including a review of recurring international events like the World Cup and the Olympic Games. In this course we will identify and study the numerous global forces that have given rise to a greater diversity in sport coverage, events and participants. Ultimately we will identify and explore the characteristics that are unique to the international platform of today's audiences, athletes and events. Prerequisite(s): SMT 110 with a grade of 'C' of higher and BUS 109 Credits: 3
(3,0)

SMT 360 Event Management

This course focuses on Event Management and Event Planning, which is an area of expertise and skill that is highly desirable in the sports and entertainment industry. This course provides the necessary building blocks and fundamentals of event management and event planning. Areas of study include event conceptualization, event staffing, event budgeting, event promotion, event security and overall event planning and management. Upon completion of this course, the student will understand the complexities and interaction required for managing, organizing and operating sport events through theory and application. Prerequisite(s): SMT 110 with a grade of 'C' or higher and BUS 109 Credits: 3
(3,0)

SMT 370 Research in Sport Management

This course is an undergraduate class on various aspects of research within the context of sport. The course provides a general overview of social research, covering four broad topics: research design, review of literature, data collection, and data analysis. Upon course completion, students will demonstrate the ability to develop a research proposal for a sport-based study. Prerequisite(s): SMT 110 and EGL 310 both with a grade of C or higher. Credits: 3
(3,0)

SMT 409 Strategic Sport Management

Strategic sport management is a means of applying a variety of business strategies to the context of sports development. Geared for upperclassmen, this course focuses on this growing field by developing and assessing the knowledge and skills associated with senior level managers working in private or public sector sports-related institutions. Students will be expected to leverage the knowledge and skills through individual and/or group projects in anticipation of similar responsibilities in their careers. Prerequisite(s): Senior status and SMT 304 Credits: 3
(3,0)

SMT 420 Current Topics in Sport

This course analyzes contemporary issues including topics such as athlete use of performance enhancing drugs, public/private funding of facilities and arenas, gambling (legal/illegal), escalating player/coaches' salaries, violence in sport, legal issues including Constitutional, collective bargaining, antitrust and employment law, NCAA and amateurism, the impact of Title IX, concussion and other sport health issues, media rights and technology, and institutional cheating in sport. Case studies are investigated and students engage in critical thinking and discussions to understand what has created these issues and their implication. Extensive research of current texts and journal articles is required. Prerequisite(s): SMT 320 Credits: 3
(3,0)

SMT 440 Sport Management Internship

Supervised work experience in corporate settings, amateur and professional sport agencies, colleges and universities, and community sport organizations. Students assume leadership roles in various job-related activities and perform administrative tasks in support of activities under an experienced agency supervisor and faculty sponsor. No more than 15 credits may be earned from SMT 440 to SMT 443 and SMT 445 to SMT 448. Prerequisite(s): Junior or Senior level status, Department approval, with a minimum GPA of 3.0 and SMT 110 with a grade of C or higher. Credits: 3
(1,0,6)

SMT 441 Sport Management Internship

Supervised work experience in corporate settings, amateur and professional sport agencies, community sport organizations. Students assume leadership roles in various job-related activities and perform administrative tasks in support of activities under an experienced agency supervisor and faculty sponsor. Note: No more than 15 credits may be earned from SMT 440 to SMT 443 and SMT 445 to SMT 448. Prerequisite(s): Junior or Senior higher status with Department approval and a minimum G.P.A. of 3.0 or higher and SMT 110 with a grade of C or higher. Credits: 6
(1,0,15)

SMT 442 Sport Management Internship

Supervised work experience in corporate settings, amateur and professional sport agencies, community sport organizations. Students assume leadership roles in various job-related activities and perform administrative tasks in support of activities under an experienced agency supervisor and faculty sponsor. Note: No more than 15 credits may be earned from SMT 440 to SMT 443 and SMT 445 to SMT 448. Prerequisite(s): Junior or Senior status with Department approval and a minimum G.P.A. of 3.0 or higher and SMT 110 with a grade of C or higher. Credits: 9
(1,0,24)

SMT 443 Sport Management Internship

Supervised work experience in corporate settings, amateur and professional sport agencies, community sport organizations. Students assume leadership roles in various job-related activities and perform administrative tasks in support of activities under an experienced agency supervisor and faculty sponsor. Note: No more than 15 credits may be earned from SMT 440 to SMT 443 and SMT 445 to SMT 448. Prerequisite(s): Junior or Senior status with Department approval and a minimum G.P.A. of 3.0 or higher and SMT 110 with a grade of C or higher. Credits: 12
(1,0,33)

SMT 445 Sport Management Internship II

Supervised work experience in corporate settings, amateur and professional sport agencies, colleges and universities, and community sport organizations. Students assume leadership roles in various job-related activities and perform administrative tasks in support of activities under an experienced agency supervisor and faculty sponsor. Note: No more than 15 credits may be earned from SMT 440 to SMT 443 and SMT 445 to SMT 448. Prerequisite(s) required and Junior status or higher, Department approval, with a minimum G.P.A. of 3.0 or higher and SMT 110 with a grade of C or higher. Credits: 3
(1,0,6)

SMT 446 Sport Management Internship II

Supervised work experience in corporate settings, amateur and professional sport agencies, colleges and universities, and community sport organizations. Students assume leadership roles in various job-related activities and perform administrative tasks in support of activities under an experienced agency supervisor and faculty sponsor. Note: No more than 15 credits may be earned from SMT 440 to SMT 443 and SMT 445 to SMT 448. Prerequisite(s) required and Junior status, Department approval, with a minimum G.P.A. of 3.0 or higher and SMT 110 with a grade of C or higher. Credits: 6
(1,0,15)

SMT 447 Sport Management Internship II

Supervised work experience in corporate settings, amateur and professional sport agencies, colleges and universities, and community sport organizations. Students assume leadership roles in various job-related activities and perform administrative tasks in support of activities under an experienced agency supervisor and faculty sponsor Note: No more than 15 credits may be earned from SMT 440 to SMT 443 and SMT 445 to SMT 448. Prerequisite(s) required and Junior status, Department approval, with a minimum G.P.A. of 3.0 or higher and SMT 110 with a grade of C or higher. Credits: 9
(1,0,24)

SMT 448 Sport Management Internship II

Supervised work experience in corporate settings, amateur and professional sport agencies, colleges and universities, and community sport organizations. Students assume leadership roles in various job-related activities and perform administrative tasks in support of activities under an experienced agency supervisor and faculty sponsor. Note: No more than 15 credits may be earned from SMT 440 to SMT 443 and SMT 445 to SMT 448. Prerequisite(s) required and Junior level status, Department approval, with a minimum G.P.A. of 3.0 and SMT 110. Credits: 12
(1,0,33)

SMT 485W Senior Seminar in Sport (Writing Intensive)

In this capstone course, students may use software and case studies that will simulate the management of a professional franchise and other sports organizations, from an operational, marketing and financial standpoint. Decisions will be made, and results analyzed, to determine if the sport business will succeed. Students will be required to prepare operational, marketing and financial plans in addition to an annual budget, and then analyze the results. This is a writing intensive course. Note: SMT 485W can be used to fulfill the writing intensive requirement. Offered at the discretion of the Sport Management Department Prerequisite(s): Senior level status and SMT 409 and EGL 101 with a grade of C or higher Credits: 3
(3,0)

SOCIOLOGY

SOC 122 Introduction to Sociology

This is an introductory course designed to familiarize students with the field of sociology. In addition to learning about the central concepts and major theoretical sociological perspectives, students study human behavior in groups, the organization of social life, the impact of social institutions on individuals, and the process of sociological research. Great emphasis is also placed upon development of students' "sociological imagination" – specifically, the ability to understand the ways that our individual lives are shaped by larger social forces and institutions.   Note: Students who take SOC 122 may not receive credit for SOC 122W. Credits: 3
(3,0)

SOC 200 Introduction to Women's Studies

An interdisciplinary approach that will draw on literature, history, sociology, as well as science and technology, the course will introduce students to issues in gender that cross traditional disciplines. Cultural assumptions about gender will be examined, and students will be encouraged to consider new ways of looking at knowledge in light of new understanding about the ways in which gender constructs beliefs and influences life's realities. Prerequisite(s): Introductory social science course and EGL 102. Credits: 3
(3,0)

SOC 201 Sociology of Education

The course analyzes the American educational system. We examine the ways that schools (including institutions of higher education) serve as agents of socialization, foster social mobility, and transmit knowledge and culture. We also study the school as a bureaucratic organization. Students are encouraged to think critically about their own educational experiences. Prerequisite(s): SOC 122 Credits: 3
(3,0)

SOC 220 Sociology of Aging

The course examines the social phenomenon of aging. We look at different theories of aging and discuss the ways that different cultures approach the process of aging. Similarly, we consider class as well as racial/ethnic differences in the social meanings and consequences of aging. Lastly, we devote considerable time to looking at various political, economic, and social issues associated with aging and the elderly. Credits: 3
(3,0)

SOC 223 Social Issues and Institutions

Focusing primarily on the United States, we discuss complex social issues such as crime, alcoholism, drug use, environmental issues, and poverty. In doing so, we examine major social institutions such as the family, the workplace, the mass media, the criminal legal system, and the healthcare system. Credits: 3
(3,0)

SOC 224 Urban Sociology

This course examines the development, processes and problems of urban life, emphasizing urban social processes in contemporary American cities. Although emphasis will be given to contemporary America, historical and cross-cultural comparisons will also be presented. Major sociological theories used to study and explain the metropolis will be presented. Along with relevant research findings; the importance of field work in the urban sociological research is emphasized.   Prerequisite(s): SOC 122 Credits: 3
(3,0)

SOC 225 Sociology of the Family

This course examines the family in the United States as a core social institution. We consider theoretical, historical, and cross-cultural aspects of such topics as mate selection, marital dynamics, the changing roles of men and women, parenting and child-rearing, divorce, aging, conflict and violence, alternative lifestyles and family policy. Prerequisite(s): SOC 122 Credits: 3
(3,0)

SOC 228 Society and Health

This course examines the meanings and experiences of health and illness and the ways in which social factors like age, gender, class and ethnicity affect health. We explore the historical development of health professions, including alternative health professions. Significant time is also devoted to understanding the workings of the contemporary American healthcare system. Credits: 3
(3,0)

SOC 229 Race and Ethnic Relations

This course provides a sociological perspective on race and ethnic relations. Such a perspective suggests that racial and ethnic categories are social constructs that result from historical struggles over economic resources, political access, and cultural identity. Furthermore such a perspective demonstrates that racism and ethnic prejudice are not simply the properties of individuals. This class will examine the intersection of racial and ethnic conflict with a variety of other ideas and structures in society in order to reveal the ways in which race continues to matter. Prerequisite(s): SOC 122 or ANT 100 Credits: 3
(3,0)

SOC 231 Multiculturalism

This course explores the wide variety of cultures that currently exist in the United States. In addition to different racial and ethnic cultures, we also consider class cultures, religious cultures and LGBTQ cultures. Significant time is devoted to examining the values, norms and everyday life of different cultures as well as the ways that different cultures (and the people from those cultures) interact. Multicultural social policy issues and media representations of different cultures are also analyzed. Prerequisite(s): SOC 122 Credits: 3
(3,0)

SOC 235 Mass Media and Popular Culture

This course examines popular culture and mass media in America. Emphasis is on the current state of popular culture and mass media, although historical presentations may be included. Major sociological theories used to study and explain popular culture and mass media will be presented along with relevant research findings. Prerequisite(s): SOC 122 Credits: 3
(3,0)

SOC 236 Sociology of the Military

This course examines the institution of the military from a sociological perspective. Topics may include, but are not limited to the specific structure of military organizations, the norms of military life, family life in the military, as well as stratification and diversity in the military. Particular attention is devoted to changes in the military over time as well as the future of the American military. Prerequisite(s): SOC 122 Credits: 3
(3,0)

SOC 237 The Sociology of Popular Music

This course will examine American popular music genres including but limited to rock and hip-hop, from a sociological perspective. Specific topics to be examined may include: the role of the music industry and recording companies, ideologies, globalization of American music, intertextuality, music consumption patterns and the influence of new technologies, moral panics, theories of popular music culture, social change, and the social class, and gender implications of popular music. Prerequisite(s): SOC 122 Credits: 3
(3,0)

SOC 238 Youth Culture

This course traces the growth of a distinctive youth culture in American life and imagination since World War II. Topics discussed may include juvenile delinquency, teen sexuality, teen poverty and homelessness, the American high school and college life. Particular attention is also devoted to the ways that films, as well as other mass media forms such as popular music and television shows, represent the lives of American youth. Credits: 3
(3,0)

SOC 240 Women, Men and Social Change

This course studies men's and women's changing roles, relationships, and participation in the labor force. A substantial section of the course is dedicated to understanding the history responsible for contemporary women's and men's social, economic, political and legal statuses. Note: Students completing this course may not receive credit for ANT 240. Prerequisite(s): SOC 122 Credits: 3
(3,0)

SOC 245 Technology, Society and Social Change

This course explores the ways in which science, technology, and society create social change. The focus is on the varying benefits, costs, and consequences of these changes across historical eras and cultures. This course carries a hands-on computer component as a requirement. Prerequisite(s): One course in social science Credits: 3
(3,0)

SOC 263 Immigration Past and Present

Immigration has been one of the most important forces in American society. This course will examine how successive waves of immigrants and newcomers most arriving voluntarily others as slaves and indentured workers have created and recreated American society in their relations with people already here and with each other. The course will present immigration as a process, and examine international migration patterns, changing law, demand for immigrant labor, social networks of family and friends, nativist resistance, the relevant theoretical perspectives, and the experiences of specific groups. We focus on the different periods of immigration, particularly the great migrations of the late 19th and early 20th centuries, and the post-1965 wave of immigrants from the Caribbean, Asia, Mexico and Latin America. Prerequisite(s): SOC 122 Credits: 3
(3,0)

SOC 270-279 Topics in Sociology

Courses that range from 270-279 are special topics courses. These courses explore specialized sociological topics of interest and vary from semester to semester. Students may take multiple special topics courses. Please check with the department chairperson and the current course listing for further details. Prerequisite(s): SOC 122 Credits: 3
(3,0)

SOC 282 Introduction to Lesbian, Gay, Bisexual, and Transgender (LGBT) Studies

This course is an introduction to the interdisciplinary field of Lesbian, Gay, Bisexual, and Transgender (LGBT) Studies. We will examine major concepts, theories, and political issues surrounding LGBT experience. We will analyze gender identity and human sexuality as social, cultural, and historical constructions. In addition, LGBT identity has profound implications in economic, cultural, social, and political spheres of life. We will pay acute attention to LGBT political struggles and their relationships to economy, family, religion, education, law, and medicine. Drawing from fields such as: Sociology, Anthropology, History, English, and Psychology, we will examine the status, experiences, and discrimination against members of the LGBT and the ways these experiences are impacted by race, ethnicity, class, and ability. Prerequisite (s): One Social Science and EGL 102 Credits: 3
(3,0)

SOC 283 Sex, Gender and Sexuality

This course introduces students to the study of sex, gender, and sexuality from a sociological perspective. It examines how these categories are socially and culturally constructed and how they affect our lives and shape our social world. Students read a wide range of classic sociological texts that examines the differences between sex and gender and explores human sexuality. A primary topic of discussion is gender socialization or how people learn society's gender norms from family, media, peers, educational institutions, and the workplace. Students will be introduced to cutting-edge research and case studies. Topics include: intersexuality, men's studies, feminist theory, transgendered individuals, sex work, and queer theory. Prerequisite(s): SOC 122 Credits: 3
(3,0)

SOC 303 Sociology of Work and Occupation

This course will focus on the various dimensions of work and the social experience of making a living in the United States and other societies - past, present and future. We consider the large-scale developments related to a rapidly changing global economy, and the implications of these changes for individual workers. Topics discussed include the impact of technological innovations, changing occupational roles and subcultures, the development of the professions and professional ethics, gender roles and work roles, unemployment and underemployment, and the relationship between work and family. Prerequisite(s): SOC 122 and EGL 102 Credits: 3
(3,0)

SOC 304 Sociology of Leadership

What is leadership? Why is it important? What are its conditions? This course will explore the nature of leadership in social groups, analyzing both contemporary and historical examples, especially as these relate to the emergence, maintenance, conditions, and impact of leaders and leadership models.   In this context, we consider and apply classical and contemporary sociological theory and research to understand the variety of roles within groups, the sources of group conformity and deviance, the distribution of power and authority, and the ways in which groups change over time.   We will also consider how larger structures of inequality, for example, in social class, gender, ethnicity, race, age, and sexual orientation, may impact leadership. Prerequisite(s): Any social science course and EGL 101. Credits: 3
(3,0)

SOC 305 Culture and Technology

This course is a multidisciplinary examination of the ways in which technology affected everyday life during the Industrial Revolution in England. Covering the years 1750 to 1880, it examines the changes taking place in technology during the period; how these changes ultimately affected the workplace, the home, and the community; and how novelists of the period felt about these changes. Note: Students completing this course cannot receive credit for HUM 305, HIS 305, ESC 305 OR IDP 305. Prerequisite(s): One social science course and HIS 114 and HIS 115 and EGL 102. Credits: 3
(3,0)

SOC 309 Sport in Society

This course analyzes the role of sport in society, especially American society. Particular attention is given to the significance of gender, race, ethnicity, and social class in sports. The course is organized around lectures, film, and discussion. Students are also expected to conduct their own research project. Prerequisite(s): SOC 122 or SOC 223 and EGL 102. Credits: 3
(3,0)

SOC 311 African American Leadership

This course examines African American political leadership in the United States from the antebellum era through the 21st century.   Emphasis is placed on the ideas espoused by a wide range of African American leaders, both male and female, and how these ideas shaped formal organizations, economics, politics, and social relations amongst Americans. Drawing from the sociology of leadership, students will learn and discuss what strategies make some leaders effective and successful. Prerequisite(s): SOC 122 and EGL 102 Credits: 3
(3,0)

SOC 325 Social Inequality

This course examines the nature, causes, and consequences of social stratification. We explore the different theoretical perspectives on inequality, global inequalities, the extent of inequality in America, and the issues of status and mobility. In addition to examining the different class cultures in the United States, we investigate the profound effects of education, class, gender, and race on individual "life chances" (i.e. the ability to achieve power, wealth, status, etc.). Prerequisite(s): Any 200 level Sociology course. Credits: 3
(3,0)

SOC 326 Visual Sociology

Visual Sociology uses cultural imagery to examine and analyze society. This course will explore the use of visual methods to study human behavior. Students will explore how meaning is created and transmitted visually and how visual media can be used to communicate sociological understandings to public audiences. Specifically, students will learn how to conduct visual ethnography and how to use sociological concepts and theories to analyze data. In this experiential learning course, students will use photography as a tool to conduct fieldwork—gathering data about a social justice issue that they have chosen, and presenting those findings in a poster presentation. Prerequisite(s): Any 200 level Sociology course. Credits: 3
(3,0)

SOC 329 Social Movements

In this course, students will learn to critically analyze processes of change in society while developing an analytical mind and improving their writing skills. Social movements are collective attempts to change the way people live their lives, how governments govern, and how economic systems produce and distribute goods. We live in a social movement society. Though we are not always aware of the level of activism going on around us, the number and different types of organizations working to create some type of social change is larger than ever before. Globalization and communications technologies have broken down barriers to worldwide participation in movements for change. Understanding how the world is influenced by individuals working together for change is of vital importance. This class focuses on theoretical domains in the sociological study of social movements and general social processes rather than on specific movements. Substantive work on specific movements is used to explain issues such as mobilization, tactics, and ideology, among other factors. Credits: 3
(3,0)

SOC 330-339 Seminar in Sociology

Courses that range from 330-339 are special topics courses. Each semester when the course is offered, a topic of interest will be selected by the department for study in seminar. Please check with the department chairperson and the current course listing for further details. Prerequisite(s): SOC 122 and EGL 102. Credits: 3
(3,0)

SOC 342 Deviance: Crime, Sex and Drugs

This course explores classic and contemporary definitions and theories of deviance. Special attention is placed on the social functions that deviance serves in society, and the inequalities that emerge in the criminal legal system. Prerequisite(s): SOC 122 or SOC 223 and EGL 102. Credits: 3
(3,0)

SOC 350 Global Social Change

This course examines global social change from a sociological perspective. Specifically, the course focuses on the process of globalization, particularly on the challenges international development poses for developing nations. Specific topics may include global income inequality, global poverty, anti-globalization activism, transnational corporations (e.g. Walmart), and the rise of supranational organizations (e.g. World Trade Organization).   Prerequisite(s): SOC 122 and EGL 102.   Credits: 3
(3,0)

SOC 351 Global Health Systems

This course examines and compares healthcare systems from a sociological perspective in post-industrialized, transitional, and developing societies. Students are required to complete an original research paper/project. Prerequisite(s): SOC 122 or SOC 223 or SOC 228 and EGL 102. Credits: 3
(3,0)

SOC 360 Sociology Theory

This course examines sociological theory, from its beginnings in the 19th century through its historical development into the 21st century. The theories of classical sociologists such as Karl Marx, Emile Durkheim, and Max Weber will be covered. This comprehensive course will also introduce students to contemporary theory such as feminist theory, gender theory, critical theory, and post-structuralism. This course provides students with an introduction to the theoretical foundations of the discipline of sociology and examines how theory can be applied to better understand the social world. Prerequisite(s): Any 200 Level Sociology course and EGL 102 with a grade of C or higher. Credits: 3
(3,0)

SOC 361 Gender Theory

Gender theory examines how the categories of sex and gender influence our ways of living and thinking. We will examine the prevalence of gender inequality in society and how it might be eradicated. We will also emphasize the ways in which socio-economic position, race, ethnicity, sexual orientation, religion, citizenship, geography, and/or ability interact with gender to shape our experiences. Students will gain better insight into how gender impacts their lives at work, at home, and in public. Students will learn how to apply gender theories to their own lives, identities, and social worlds. Note: Students cannot earn credit for SOC 361 and SOC 361W; SOC 361W can be used to fulfill the writing intensive requirement. Prerequisite(s): SOC 200 or 282 or 283 or PSY 230 or 307 and EGL 102 with a grade of C or higher. Credits: 3
(3,0)

SOC 366 Sociological Research Methods

In this course, we develop an understanding of the different types of research methods used by sociologists (and other social scientists) to study the social world. The class begins with a discussion of the fundamental concepts of social science research and the ethical issues involved. Students will learn how to conduct basic qualitative and quantitative research - the ability to formulate research questions, methods of research design, strategies for collecting information and data, as well as the ability to analyze and present statistical data. Great emphasis is placed on students doing research projects in and outside of class. Prerequisite(s): Any 200 Level Sociology course. Credits: 3
(3,0)

SOC 407 Field Research in Sociology

This is an advanced course in qualitative research methodologies. Students read, design, and complete a field research project using their data from Sociological Research Methods or research internship. Students will learn advanced sociological analysis through the presentation of classic theories and case studies in class, and will apply them to their research projects. Prerequisite(s): SOC 366 and Senior level status. Credits: 3
(3,0)

SOC 480 Research Internship I

The research internship provides students with insight into the personal qualities and skills that make a good researcher, as well as learning about the broader impact of scientific discovery. While working alongside a faculty member students will be able to hone their research and analytical skills, through hands-on experiences. Students will create a research plan in consultation with the faculty member and spend 45-135 hours during the semester working on research. While each course design will vary, students will be involved in library research, compiling literature reviews, data collection, and data analysis. Students must either complete a paper or poster at the conclusion of their research internship. Prerequisite(s): SOC 366 or ANT 366 with a grade of C or higher. Credits: 1
(0,0,3)

SOC 481 Research Internship I

The research internship provides students with insight into the personal qualities and skills that make a good researcher, as well as learning about the broader impact of scientific discovery. While working alongside a faculty member students will be able to hone their research and analytical skills, through hands-on experiences. Students will create a research plan in consultation with the faculty member and spend 45-135 hours during the semester working on research. While each course design will vary, students will be involved in library research, compiling literature reviews, data collection, and data analysis. Students must either complete a paper or poster at the conclusion of their research internship. Prerequisite(s): SOC 366 or ANT 366 with a grade of C or higher. Credits: 2
(0,0,6)

SOC 482 Research Internship I

The research internship provides students with insight into the personal qualities and skills that make a good researcher, as well as learning about the broader impact of scientific discovery. While working alongside a faculty member students will be able to hone their research and analytical skills, through hands-on experiences. Students will create a research plan in consultation with the faculty member and spend 45-135 hours during the semester working on research. While each course design will vary, students will be involved in library research, compiling literature reviews, data collection, and data analysis. Students must either complete a paper or poster at the conclusion of their research internship. Prerequisite(s): SOC 366 or ANT 366 with a grade of C or higher. Credits: 3
(0,0,9)

SOC 485 Research Internship II

The research internship provides students with insight into the personal qualities and skills that make a good researcher, as well as learning about the broader impact of scientific discovery. While working alongside a faculty member students will be able to hone their research and analytical skills, through hands-on experiences. Students will create a research plan in consultation with the faculty member and spend 45-135 hours during the semester working on research. While each course design will vary, students will be involved in library research, compiling literature reviews, data collection, and data analysis. Students must either complete a paper or poster at the conclusion of their research internship. Prerequisite(s): SOC 366 or ANT 366 with a grade of C or higher. Credits: 1
(0,0,3)

SOC 486 Research Internship II

The research internship provides students with insight into the personal qualities and skills that make a good researcher, as well as learning about the broader impact of scientific discovery. While working alongside a faculty member students will be able to hone their research and analytical skills, through hands-on experiences. Students will create a research plan in consultation with the faculty member and spend 45-135 hours during the semester working on research. While each course design will vary, students will be involved in library research, compiling literature reviews, data collection, and data analysis. Students must either complete a paper or poster at the conclusion of their research internship. Prerequisite(s): SOC 366 or ANT 366 with a grade of C or higher. Credits: 2
(0,0,6)

SOC 487 Research Internship II

The research internship provides students with insight into the personal qualities and skills that make a good researcher, as well as learning about the broader impact of scientific discovery. While working alongside a faculty member students will be able to hone their research and analytical skills, through hands-on experiences. Students will create a research plan in consultation with the faculty member and spend 45-135 hours during the semester working on research. While each course design will vary, students will be involved in library research, compiling literature reviews, data collection, and data analysis. Students must either complete a paper or poster at the conclusion of their research internship. Prerequisite(s): SOC 366 or ANT 366 with a grade of C or higher. Credits: 3
(0,0,9)

SPANISH

SPA 141 Spanish I (Elementary)

A beginning course in Spanish emphasizing the gradual development of the four language skills: listening, speaking, reading and writing with stress on communicative competence and cultural awareness.
Credits: 3
(3,0)

SPA 142 Spanish II (Elementary)

A continuation of Spanish 141 emphasizing the gradual development of the four language skills: listening, speaking, reading and writing with stress on communicative competence and cultural awareness. Prerequisite(s): 2 or 3 years of high school Spanish or SPA 141.
Credits: 3
(3,0)

SPA 145 Spanish for Medical Personnel

Conversational course for people who are working or are planning to work in the medical or allied medical field. The course includes structural review and realistic, practical dialogues dealing with the different situations that medical personnel encounter in the course of their work. A valuable course for those who intend to work in New York City or Long Island. Prerequisite(s): 2 or 3 years of high school Spanish or SPA 141. Credits: 3
(3,0)

SPA 146 Spanish for Medical Personnel II

Continuation of SPA 145. Prerequisite(s): 3 or more years of high school Spanish or SPA 145. Credits: 3
(3,0)

SPA 147 Spanish for Business I

This is a beginning language course which covers basic linguistic structures of Spanish. The course differs from the traditional academic course only in its emphasis on developing vocabulary useful for careers in business, economics, or finance. Both oral and written communication skills will be developed. The course contains realistic dialogues focusing on business themes. Practical application of new structures is provided by vocabulary enrichment, role-playing situations, and other communicative activities. In addition, appropriate supplementary readings and practice in writing business letters, memos, and reports will be provided. Students who have completed SPA 147 may not receive credit for SPA 141. Credits: 3
(3,0)

SPA 148 Spanish for Business II

Continuation of SPA 147. Prerequisite(s): 3 or more years of high school Spanish or SPA 147. Credits: 3
(3,0)

SPA 243 Spanish III (Intermediate)

A continuation of Spanish 142 for students who have had 2 or 3 years of high school Spanish. This course emphasizes the gradual development of the four language skills: listening, speaking, reading, and writing with stress on communicative competence and cultural awareness. A literary and cultural reader will be introduced. Prerequisite(s): SPA 142
Credits: 3
(3,0)

SPA 244 Spanish IV (Intermediate)

For those students that have taken SPA 243 of four or more years of high school Spanish. This course emphasizes structural review, intensified practice in oral expression with increased emphasis on reading and writing skills. Continued attention will be given to contemporary Spanish culture. Selections from Spanish and Latin American authors will be read. Prerequisite(s): SPA 243 Credits: 3
(3,0)

SPA 250 Spanish for Native Speakers

This course is designed to strengthen the linguistic ability of students of Hispanic background, born or educated in the United States, who speak Spanish at home and lack a formal knowledge of the language. All four skills - comprehension, speaking, reading and writing are highlighted but emphasis is given to reading, writing and vocabulary. Cultural, social and literary insights of the Hispanic world. Prerequisite(s): Native or near native command of Spanish. Credits: 3
(3,0)

SPA 251 Spanish Composition and Conversation

This course is an upper intermediate level course for students who are already proficient speakers of Spanish and have formal knowledge to the language. The course emphasizes the mastery of writing, reading, and oral communication skills, with particular attention given to the issues of Anglicism and interference of English, code switching, vocabulary building, orthography, and reading comprehension. Students will write compositions, make oral presentations and read materials of a cultural/literary nature, emphasizing the relationship between the culture of the United States and Hispanic culture. Prerequisite(s): SPA 244 Credits: 3
(3,0)

SPA 301 Spanish V (Advanced)

An advanced conversation/composition course with intensive practice in oral and written Spanish. Selected representative works of Spanish authors will be read. Because the course deals mainly with Spanish fiction, emphasis will be given to familiarizing the student with this narrative in order to explore the connection between language and style as well as the literary trends and the social and cultural contexts of the periods for comparison and contrast. Prerequisite(s): 4 or more years of high school Spanish or SPA 244. Credits: 3
(3,0)

SPA 302 Spanish VI (Advanced)

An advance conversation composition course with intensive practice in oral and written Spanish. Selected representative works of Spanish American fiction will be read. Because the course deals mainly with Spanish American fiction, emphasis will be given to familiarizing the student with this narrative in order to explore the connection between language and style as well as the literary trends and the social and cultural context of the periods for comparison and contrast. Prerequisite(s): 4 or more years of high school Spanish or SPA 301. Credits: 3
(3,0)

SPA 303 Spanish and Latin American Cinema

In this course, representative Spanish and Latin American movies that cover periods from Romanticism to contemporary times will be analyzed, viewed and discussed. Films will be chosen to discuss social, philosophical, political and identity problems as well as its interpretation according to the artistic vision and directors' achievements and goals. Theory and history of film genres of Spain and Latin America cinema will be studied. Note: This course will be taught in Spanish only. Students taking this course cannot receive credit for MLG 302. Prerequisite(s): Permission from this department chair or SPA 302. Credits: 3
(3,0)

SPA 305 Hispanic and Latin American Culture and Civilization

Civilization course: Provides a general perspective on the formation of the Latin American Culture through the centuries, with special emphasis on Spanish America. In parallel form, historical and cultural evolution of the New World and the Iberian Peninsula will be studied from their beginnings up to the present. Among other aspects, the course will give special attention to the rich multicultural heritage which has been maintained in Latin America through the centuries, as well as its achievements in Art and Literature. Note: This course will be taught in Spanish only. Students taking this course cannot receive credit for MLG 305. Prerequisite(s): Permission from this department chair or SPA 302. Credits: 3
(3,0)

SPA 310 Latin American Women Writers

This course focuses on the works of major Latin-American women writers from the 17th to the 20th century. We will analyze poems, short stories and novels and how women have been portrayed in literature. The theoretical approach to this class will be based on contemporary feminist critics. We will study the works of the first 17th century Mexican feminist writer, The Nun, Sor Juana Ines De La Cruz, as well as the works of Elena Poniatowska, Julia Alvarez and Laura Ezquivel among others. Note: This course will be taught in Spanish only. Students taking this course cannot receive credit for MLG 310. Prerequisite(s): Permission from this department chair or SPA 302. Credits: 3
(3,0)

SPA 312 Contemporary Latin American Short Stories

An introduction to different literary movements reflected in Latin American Short Stories in translation during the 20th Century. The emphasis will be the lyrical basis of the realistic, surrealistic and supernatural elements in the stories of Latin American Writers. Modern women writers' esthetics and poetic sensitivity as well as humor and sarcasm will be included in both the observation of individual psychology and tales of the absurd. Summarizing, and using Anderson Imbert's three basic definitions, the focus of this course will be a) reality (realism); b) the supernatural (literature of the fantastic); c) the strange (magic realism). Note: Course will be taught in Spanish only. Students taking this course cannot receive credit for MLG 312. Prerequisite(s): Permission from this department chair or SPA 302. Credits: 3
(3,0)

SPA 315 Art, Culture and Civilization of Spain

Study of Spain, a multicultural and multilingual nation, not as a homogenous entity, but rather as a heterogeneous tapestry of various cultures and languages. The corpus of cultural texts studied will be derived from the realms of literature, film, architecture, music and the visual arts. They will be analyzed within their socio-historical context, as well as their aesthetic value. An integral component of the course will be the required trip to Spain (during spring break) to visit historical sites, works of art and architecture studied in the course. Note: This course will be taught in Spanish only. Students taking this course cannot receive credit for MLG 315. Prerequisite(s): Permission from this department chair or SPA 302. Credits: 3
(3,0)

SPA 320 Latino Writers in the United States

The development of Latino literature and culture in the United States, with emphasis on the 20th century. Major writings of Mexican, Cuban, Dominican Republican, Puerto Rican and other Latinos will be analyzed in relation to each group's particular experience and its relation to main stream society. Particular attention given to how gender, race, ethnicity, and class interaction affects the formation of the diverse cultural experience of the U.S Latino. Note: This course will be taught only in Spanish. Students taking this cannot receive credit for MLG 320. Prerequisite(s): Permission from this department chair or SPA 302. Credits: 3
(3,0)

SPEECH

SPE 130 Public Speaking

This course prepares students in the following areas of effective expository and persuasive public speaking: audience analysis; topic selection; appropriate use and documentation of supporting material; organization and outlining techniques; aspects of delivery which include appropriate eye contact, posture, use of notes, elements of voice such as rate and volume, and the use of presentational visual aids. Group discussion and problem solving exercises will also be provided, and students will engage in peer feedback throughout the course. Credits: 3
(3,0)

SPE 131 Voice and Diction

This course presents the processes involved in the production of voice and diction. It introduces the fundamentals of place and manner of production for the vowels and consonants of Eastern Standard Dialect. There is an emphasis on New York Regional Dialect and the influence of foreign accents and dialects as needed. This is a hands-on course in which each speech student receives an initial speech profile and then focuses on his/her speech pattern throughout the semester both individually and in groups. All in-class exercises and assignments are designed to achieve the goal of a clear, effective, and professional speech pattern. Credits: 3
(3,0)

SPE 202 Interpersonal Communications

An Introduction to effective interpersonal communication skills covering areas such as effective and active listening, feedback techniques, the effects of self-concept and perception in daily communications, and non-verbal and cross-cultural communication. These skills will be developed through class lectures, group exercises, and individual activities and assignments. Prerequisite(s): EGL 101 Credits: 3
(3,0)

SPE 230 Effective Executive Speaking

A course designed to develop and refine the student's overall profile as an effective communicator in private and public settings. Articulation, listening skills, problem solving abilities, organizational skills and feedback techniques are stressed in interpersonal, group, and public speaking experiences. Credits: 3
(3,0)

SPE 330 Professional and Technical Speech

A course designed to prepare students to develop and deliver oral presentations in a professional, business, scientific, or technical context, stressing methods of presenting information specific to students' disciplines. Students use audio-visual materials or technology to enhance their presentations. Prerequisite(s): EGL 102 Credits: 3
(3,0)

SPE 331 Advanced Oral Communications

This course is designed to develop effective and professional communication in the areas of communication theory, advanced presentation skills, and voice and diction. A major component of the course provides students with a personalized voice and diction diagnostic profile which informs each student of specific speech characteristics they present that deviate from Standard Eastern Dialect. Particular attention is given to New York Regional Dialect and foreign accent reduction. The course also introduces various theoretical systems of communication. There is a strong focus on the development and effective application of presentational skills in both public and group/team environments with an emphasis on professional settings. All aspects of the course contain written components which include student readings and reports as well as comprehensive speech outlines. Note: Students taking this course cannot receive credit for PCM 331. Prerequisite(s): EGL 102 Credits: 3
(3,0)

SCIENCE, TECHNOLOGY AND SOCIETY

STS 101 Gateway to Science, Technology, & Society

This course will provide students with a rich introduction to the field of Science, Technology, & Society (STS), paying particular attention to key concepts and methods such as the interplay between science, politics, economics, religion, and culture. STS studies the position of science in society as well as social and cultural aspects of the production of scientific knowledge. The course will also devote time to career development and explore fields where STS can provide entry. Prerequisite(s): EGL 101 Credits: 3
(3,0)

STS 200 Information Literacy in the Digital Era

The purpose of this course is to provide an introduction to research methods in the age of new media, focusing on the effective location and use of digital resources, including electronic databases, Web-based materials, e-books, etc. Course lectures will focus on the historical evolution of information-sharing tools and current controversies in authorship and research in the digital age, including the debate on plagiarism, issues associated with intellectual property, and questions about the authenticity of data. Prerequisite(s): EGL 101 Credits: 3
(3,0)

STS 201 Thinking Critically About Technology

Is more/better/faster technology always a good thing? This course will explore how society views technology and how technological advancements impact our everyday lives. The learner will then apply this knowledge to assess and engage arguments for and against major technological advancements including the emergence of cyberspace, "always-on" social media, artificial intelligence, transhumanism, and other radical evolutions in technology. Prerequisite(s): EGL 101
Credits: 3
(3,0)

STS 300 Special Topics: Science, Technology, & Society

This course offers instruction in special content areas that explore the intersection of scientific and technological advances, politics, culture, and society. Interdisciplinary in nature, Special Topics in Science, Technology, & Society will investigate contemporary issues such as ecology and environmental sustainability, the spread of information and communication technologies, privacy and surveillance, new technologies of war, and bioethics, among other fields of inquiry. This course will require extensive reading and research, focused on the selected topic. Students should consult the department before registering for any Special Topics course. Prerequisite(s): Any 100-level or higher SOC, HIS, or POL course. Credits: 3
(3,0)

STS 303 Research Experience

This course awards credit for hands-on research experience with a faculty mentor to Science, Technology, & Society students. The course is specifically intended for those who participate in faculty-mentored research prior to their senior year capstone experience. Students will receive credit for research experiences on the Farmingdale Campus, or off-campus in major universities, research laboratories, businesses, industry, government, horticultural gardens, and other settings that fit their academic interests and career goals. Prerequisite(s): Junior Status
Credits: 3
(1,0,6)

STS 310 Surveillance Technology in Cinema

This course examines the issues raised by cinematic representations of the use of surveillance technology and their implications to our global society. Through critical analysis of assigned screenings and readings, you will explore the ways in which firm has represented the global surveillance culture that in recent years has increasingly become part of the public consciousness. Prerequisite(s): Junior Status Credits: 3
(3,0)

STS 320 Technology and Humanity in Cinema

This course examines the issues surrounding cinema's portrayals of the impact that scientific and technological progress have upon humanity. Through critical analysis of assigned screenings and readings, students will explore the ways in which film articulates the shifting conception of what it means to be human in a world increasingly defines by our relationship with technology. Prerequisitie(s): Junior Status Credits: 3
(3,0)

STS 400W Senior Seminar in Science, Technology, & Society (Writing Intensive)

The Senior Seminar in Science, Technology, & Society is a capstone course for those students intending to graduate from the Science, Technology, & Society (STS) program. Students will participate in a reading and writing-intensive seminar organized around a common theme in the sciences and technologies, exploring how social, political, and cultural values affect the production and dissemination of knowledge and the development and use of new technologies. Students in the seminar will be required to complete a substantial research project integrating what they have learned during their course of study and their specific areas of interest. Students should consult the department before registering for any seminar course. This is a writing-intensive course. Note: Students cannot get credit for STS 400 and 400W; STS 400W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the Science, Technology, & Society Department Prerequisite(s): Senior status in STS program and EGL 101 with a grade of C or higher. Credits: 3
(3,0)

STS 401W Internship in Science, Technology, & Society (Writing Intensive)

This course is designed for Science, Technology, & Society (STS) majors who wish to complete a semester-long (or equivalent) internship as part of their course of study. Students may choose an internship at a corporation or a civic, educational, governmental, or not-for- profit organization after consultation with and permission of the department chair. Any internship should support learning outcomes and/or career development in the sciences, technology, and/or society. Enrollment in this course is restricted to students with senior status in the STS Program. Students enrolled in an internship will meet periodically with their advisor and will be required to submit internship notes and both a draft and final report of the internship experience at the end of the semester. This is a writing-intensive course. Note: Students cannot get credit for STS 401 and 401W; STS 401W can be used to fulfill the writing intensive requirement. Note: Offered at the discretion of the Science, Technology, & Society Department Prerequisite(s): Senior status in STS program and approval of Department Chair and EGL 101 with a grade of C or higher. Credits: 3
(1,0,6)

STS 402 Internship in Science, Technology, & Society

This course is designed for Science, Technology, & Society (STS) majors who wish to complete a semester-long (or equivalent) internship as part of their course of study. Students may choose an internship at a corporation or a civic, educational, governmental, or not-for- profit organization after consultation with and permission of the department chair. Any internship should support learning outcomes and/or career development in the sciences, technology, and/or society. Enrollment in this course is restricted to students with senior status in the STS Program. Students enrolled in an internship will meet periodically with their advisor and will be required to submit internship notes and both a draft and final report of the internship experience at the end of the semester. Prerequisite: Senior status in STS program and approval of Department Chair. Credits: 6
(1,0,15)

STS 403 Internship in Science, Technology, & Society

This course is designed for Science, Technology, & Society (STS) majors who wish to complete a semester-long (or equivalent) internship as part of their course of study. Students may choose an internship at a corporation or a civic, educational, governmental, or not-for- profit organization after consultation with and permission of the department chair. Any internship should support learning outcomes and/or career development in the sciences, technology, and/or society. Enrollment in this course is restricted to students with senior status in the STS Program. Students enrolled in an internship will meet periodically with their advisor and will be required to submit internship notes and both a draft and final report of the internship experience at the end of the semester. Prerequisite(s): Senior status in STS program and approval of Department Chair. Credits: 9
(1,0,24)

STS 404 Internship in Science, Technology, & Society

This course is designed for Science, Technology, & Society (STS) majors who wish to complete a semester-long (or equivalent) internship as part of their course of study. Students may choose an internship at a corporation or a civic, educational, governmental, or not-for- profit organization after consultation with and permission of the department chair. Any internship should support learning outcomes and/or career development in the sciences, technology, and/or society. Enrollment in this course is restricted to students with senior status in the STS Program. Students enrolled in an internship will meet periodically with their advisor and will be required to submit internship notes and both a draft and final report of the internship experience at the end of the semester. Prerequisite(s): Senior status in STS program and approval of Department Chair. Credits: 12
(1,0,33)

TELECOMMUNICATIONS TECHNOLOGY

TEL 215 Introduction to Telecommunication Systems

An introduction and survey of the Telecommunications industry's fundamentals. This course will provide an introduction to Internet and Emerging Technologies as well as Fiber optics and Wireless networks. The basics of telephony, switching systems, multiplexing, analog and digital signaling principles, modulation principles, transmissions equipment, and data communication networks are covered. Voice and data communications systems and protocol as well as private and public networks are studied. Prerequisite(s): EET 105, 200 and MTH 129 Credits: 4
(3,2)

TEL 305 Communication Circuits and Systems

Fundamental concepts in communications. Topics include: Tuned Amplifiers, RC and LC oscillators, Fourier Series and the spectral content of signals. Amplitude and Frequency modulation, and signal recovery circuits. Single-sideband communication systems. Digital Communications: encoding technique and transmissions. Prerequisite(s): TEL 215 Corequisite(s): TEL 305L Credits: 4
(3,3)

TEL 320 Wireless Communications

This course will concentrate on the Radio Frequency properties of wireless communications systems. After an introduction to the basics of high frequency signal behavior on transmissions lines and the nature of electromagnetic propagation, the course will examine the various modulation modes used in today's wireless systems. This will include modes such as CDMA, TDMA, and OFDM. Laboratory experiments will study the effects of fading and multipath. Prerequisite(s): TEL 305, EET 223 and MTH 130 Corequisite(s): TEL 320L Credits: 4
(3,3)

TEL 325 Optical Communications and Systems

This course introduces the students to the principles of optical communications systems. Topics include: Optical fibers; attenuation and dispersion; optical sources such as light emitting diodes (LEDs) and laser diodes; optical amplifiers; passive components; photodetectors; PIN and avalanche photodiodes; optical receivers and sensitivity; optical system design issues including power budget, bandwidth, Q-factor, and bit error ratio (BER); Wavelength Division Multiplexing (WDM); introduction to optical networks. Laboratory experiments and simulations reinforce the theoretical concepts and include the design and simulation of a point-to-point optical link. Prerequisite(s): TEL 305, MTH 130 and PHY 136 Credits: 4
(3,3)

TEL 420 Emerging Communication Technologies

This course will concentrate on current and emerging telecommunications technologies. Signaling protocols for call processing for both circuit switched and packet switched communications as well as advance voice coding (e.g., G729) for wireless and VoIP systems will be covered. The course will also cover other technologies such as ISDN, Frame Relay, and Residential Broadband including DSL.SONET networks, ATSC video standards including IPTV, HDTV as well as some modern Satellite communications will be included. Prerequisite(s): TEL 320, 325 and EET 440 Credits: 3
(3,0)

TEL 450 Telecommunications Senior Project Seminar

The Senior Project Course is the first course in a two course sequence that provides telecommunications technology students the opportunity to integrate critical thinking and technical knowledge learned throughout the program in the identification, design, development and evaluation of a telecommunication related project. Case studies are included to illustrate different design and product development strategies used in the solution of various telecommunication design problems. Students are required to submit a preliminary senior design project proposal by the conclusion of this course. Prerequisite(s): Completion of junior level Telecommunications Technology courses or Department approval. Credits: 2
(2,0)

TEL 452 Telecommunications Senior Project

The Senior Project Course is the capstone course for telecommunications technology students. It is the second course in the telecommunications senior project course sequence in which students work under the supervision of a faculty member in the implementation of an approved design project proposal. Students are required to provide a written report and make an oral presentation that addresses areas such as the design process implemented, product specifications, cost analysis, testing and/or computer simulation procedures used in the verification of results obtained as well as ethical and product liability issues addressed. Prerequisite(s): TEL 450 Credits: 2
(1,2)

TEL 460 Mobile and Cellular Communication Systems

This course covers the fundamental concepts used in cellular and mobile communication systems such as propagation, link budget, handoffs, power control, and access protocols. The course also introduces the modern cellular network standards such as AMPS, TDMA, GSM, CDMA, 3G/4G with emphasis on different technologies and applications used by these standards.   Prerequisite(s): TEL 305 Corequisite(s): TEL 460L Credits: 4
(3,2)

TEL 470 Telecommunications Policy and Standards

This course covers telecommunications policies and issues with special emphasis on domestic policy, regulation and law. Current issues, trends and standards will also be discussed. The course starts with a basic definition of telecommunications and why policies, regulation/deregulation and law are important to understand. It then moves to the history of US telecommunications development with emphasis on the regulatory environment and continues with discussions of current US regulatory policy at the state and federal levels. Current sweeping changes in the regulatory and legal arenas and the move to a new US and world model will be discussed. The importance of standards for domestic and international telecommunications will be studied along with a description of the standards definition process. Prerequisite(s): Junior status in the Telecommunications Technology Program. Credits: 3
(3,0)

THEATRE

THE 233 Introduction to Theatre

A survey of the elements of theatrical art, including script, acting, scenery, lighting, costumes, and the roles of the various members of professional production: producer, actor, and audience. Representative plays, playwrights, and styles from ancient Athens to off-Broadway are examined. Prerequisite(s): EGL 102 Credits: 3
(3,0)

VISUAL COMMUNICATIONS

VIS 101 Introduction to Drawing

Students will be introduced to basic observational freehand drawing techniques, including line, form, light and shade and composition. Students will study examples of work from various artists and have an opportunity to apply this knowledge in the studio and in outdoor settings. Credits: 3
(3,0)

VIS 102 The Interrelationship of Art and Music

In an effort to foster in students a broad appreciation of the arts, this course will expose students to the fundamentals of art and music and will explore historic trends and compositional techniques common to both genres. The course will be presented in seminar format and will include lecture, class discussion, listening to music, viewing examples of art, and analyzing representative examples of music and art. Credits: 3
(3,0)

VIS 103 Introduction to Watercolor

Students will be introduced to basic watercolor techniques, including color, value, shape and composition. Students will study examples of work from various watercolor artists and have an opportunity to apply this knowledge in the studio and outdoor settings. Credits: 3
(3,0)

VIS 104 Introduction to Calligraphy

An introduction to the history and technique of the calligraphic arts. Students will gain insight into the origins and development of hand-lettered communication throughout history. Topics will range from illuminated manuscripts to contemporary calligraphic artists. Students will apply this knowledge to their own calligraphy projects. Credits: 3
(3,0)

VIS 105 Introduction to Photography

This course is an introduction to the history, art and technique of photography. By utilizing their own cameras and commercial processing, students will acquire the knowledge and skills necessary to produce well-composed and properly exposed creative photographs. The estimated student cost for materials, including film, processing and other supplies is approximately $200 (not including camera). Credits: 3
(3,0)

VIS 106 Introduction to Pastels

Students will be introduced to a vast array of pastel techniques including linear strokes, side strokes, blending, feathering, cross hatching, scumbling, and pointillism. Drawing and compositional skills such as an understanding of value, color, and line will also be stressed. Students will study examples of work from various artists and apply this knowledge in the studio and in outdoor settings. Credits: 3
(3,0)

VIS 110 Drawing I

Drawing is the foundation for all other applications of design. To that end, this course explores the principles of freehand drawing, and emphasizes the use of line, light and shade, perspective, proportion and pictorial composition. Subject matter in class will include both still-life (natural and fabricated) and an introduction to drawing the figure. Students will experiment with a variety of black and white media as they learn about drawing and all its possibilities, both creative and analytical. Credits: 3
(2,2)

VIS 112 Two-Dimensional Design

This course is an in-depth examination of the elements and principles of design and how they influence the creation of two-dimensional compositions. Students will acquire vocabulary and concepts that will be used throughout their careers. Individual visual expression will be emphasized through design assignments that allow the exploration of a variety of media and tools. Contemporary and historically significant works of art and design will be utilized. This will help students recognize the successful application of the elements and principles of design for evaluating their own work and that of their peers. Credits: 3
(2,2)

VIS 114 Principles of Color

This course will explore the vast visual language of color including its characteristics, properties, and schemes, as well as its expressive and symbolic usage. An understanding of the rich vocabularies of both color and design will be enforced. Students will increase their skills in the identification and interpretation of design principles in contemporary and historically significant works of art. Students will experiment with color in many mediums as an avenue to recognizing the power of color. Credits: 3
(2,2)

VIS 115 Three-Dimensional Design

Three-dimensional is the foundation for many of the specialized areas of graphic design, including package design, product design, environmental graphics, animation and three-dimensional modeling. Thus, this course stresses the application and appreciation of the principles and elements that make successful three-dimensional designs. Study will include: mass, volume, line, surface, plane, space, time and motion. In the design and construction of three-dimensional objects, students will explore a variety of materials and construction methods. Constructions will be made typically of wood, paper, bristol board, foam core, corrugated board, plaster and other three-dimensional materials. The course will also stress the efficient and safe use of tools and materials. Credits: 3
(2,2)

VIS 116 Digital Media and Methods

The concepts and techniques of digital media are essential for the modern graphic designer. This course serves as an essential foundation for all subsequent courses in computer graphics. Students will gain an understanding of how this evolving technology applies to the visual communication industry and will be introduced to the hardware and software utilized within the field. The terminology that we use as designers when dealing with technology will also be stressed. Networking, printing, file sharing, on-line course management tools, etc., specific to the Visual Communication Department and Farmingdale State College campus will be covered. This course is required and must be taken in residence at Farmingdale. Credits: 3
(2,2)

VIS 118 Creative Concepts Seminar

This course will be presented by instructors and guest lecturers in a seminar format that will integrate a series of topics and contemporary issues pertaining to creativity. The objective of this course is to further develop each artist's ability to conceptualize and creatively apply solutions to visual arts projects. Credits: 1
(1,0)

VIS 120 Drawing II

This course furthers the investigations of drawing as the foundation for all other applications of design. Students will expand their understanding of perspective and structural drawing, and continue the development of the perception, skill and knowledge necessary to draw the human figure. In addition to working in graphite and charcoal, students will also experiment with a variety of drawing surfaces and media, including ink wash and watercolor. Prerequisite(s): VIS 110 Credits: 3
(2,2)

VIS 122 Typography I

Typography is the formal study of letterform. Each typeface has qualities that allow it to be identified, classified and appreciated for its own individual beauty. In this course, students will gain perspective into this important field by starting with a focus on early visual communication, symbols handwritten letterforms, calligraphy and the development of movable type. Students will then explore ways to categorize type into families and identify and define the similarities and subtle differences in classical typeface. Class discussions, projects, critiques and lectures will focus on typographic terminology and vocabulary, as well as the aesthetic discipline of using type effectively as a designer. An emphasis will be placed on typography as an essential element of graphic design. Prerequisite(s): VIS 112 and 116 Credits: 3
(2,2)

VIS 140 Introduction to Graphic Design

An introduction to the fundamental concepts of design as applied to the communication of information. The primary objective of this course is to develop the students' perceptual and technical skills. Class discussions and hands-on projects will stress the effective use of typography, images, and page layout principles to achieve a balance between the design and readability of documents. Credits: 3
(3,0)

VIS 150 Computing and Internet Essentials

An introduction to computer operation on both the Macintosh and Windows computer platforms. This course is intended to give students an understanding of fundamental use of computers and cross-platform issues, especially as they pertain to the Internet. File management, scanning, fonts, communications, application software and web browsers will be some of the topics covered. Credits: 3
(2,2)

VIS 188 Advertising Practices and Applications

This course will combine basic advertising principles with practical media application. This course shall introduce students to the business of advertising in a contemporary global environment. The course will explore concepts of advertising, including elements of media selection and copywriting within the parameters of internal budgets, management and the application of actual advertising creation. In addition, students will create advertising, integrating the roles of the creative director and marketing manager. Note: Students completing this course may not receive credit for BUS 188. Credits: 3
(3,0)

VIS 200 Survey of Graphic Design

A survey of the history of graphic design from the Graphic Renaissance to the Digital Age. Special attention will be paid to how this history both reflects and influences our society and culture. Lectures, slides and texts will be used in the exploration of each of the following periods: Graphic Renaissance, The Industrial Revolution, Mid-Century Modern, Late-Modernism, Post-Modernism, and the Digital Age. Credits: 3
(3,0)

VIS 214 Figure Drawing I

Introduce design and illustration students to the basic concepts of drawing the human figure from life. Two thirds of the semester will be devoted to drawing the nude model in the studio, while one third of the course will be devoted to drawing the clothed figure in the studio. Prerequisite(s): VIS 120 Credits: 3
(2,2)

VIS 215 Introduction to Animation

The course will provide an exploration of animation techniques and applications from early development through digital media. Students will study selected traditional and electronic animation techniques from storyboard through the final animated production. The course will concentrate on storytelling using different animation methods in a digital environment. Credits: 3
(2,2)

VIS 216 Painting I

This course will introduce students to the basic principles of painting. All students will work in the medium of oil paint. Because drawing is the basis of all visual means of expression, this course will incorporate an analytical approach to seeing and drawing from life and will quickly progress to working with paint. This course will be conducted through lectures, demonstrations, critiques and predominantly through the interaction between instructor and student. Each student will be asked to complete approximately seven paintings by the end of the semester. Credits: 3
(2,2)

VIS 217 Introduction to Printmaking

This mixed–media course introduces the student to the basic fundamentals and concepts of non-toxic printmaking: the development of an image on a printing plate, the transfer of the image to paper, edition printing, matting and presentation. Media will include photo and digital transfer, woodcut prints, silkscreen, intaglio, collagraphs and monoprints. Emphasis is placed on the student's exploration of this creative process to produce and develop exciting prints. Credits: 3
(2,2)

VIS 222 Graphic Design I

The graphic designer conceives, plans, and executes a design that communicates a direct message to a specific audience. It is through a formal understanding of this design process that students learn to create successful designs. The general principles studied and practiced in this course are based on the integration of type and image to convey meaning. The student will begin the process of defining a personal design aesthetic and will work with a variety of traditional and digital media. Prerequisite(s): VIS 122 Credits: 3
(2,2)

VIS 225 Photography I

This course introduces photographic principles with the primary emphasis on the technical issues of photography in studio and natural lighting conditions. Students will learn the concepts and techniques for proper lighting, exposure, focus, depth-of-field, and creative composition. The methodology for the creation of compelling and original photographic images will be covered as it applies to graphic design projects. Image management software, archival storage solutions, and presentation techniques will be explored. Students must supply their own digital camera (see department web page for current specific equipment requirements). Prerequisite(s): VIS 112 and 116 Credits: 3
(2,2)

VIS 226 Design Production I

Design Production deals with how to professionally execute Graphic Design concepts. As designers we use a vast array of tools and technology and this course introduces students to the primary software used to create those designs. Students will utilize texts and online resources for software training and the instructor will provide additional training in realistic situations and troubleshooting the use of the software relative to specific tasks. Software will include solutions for vector illustration, bitmap image manipulation, layout and print production as they pertain to design decisions. This is not software training (menu by menu, feature by feature) rather it is a focus on the software in terms of the tasks that the student is likely to encounter in a real world print environment. Prerequisite(s): VIS 116 Credits: 3
(2,2)

VIS 228 Four-Dimensional Design

4 D (4-Dimensional) design will explore the process of designing user experiences that rely heavily on time, space and motion to communicate an idea. In this course students will examine the increasingly important role time-based media plays in the world of graphic design. Applications may include web design, video, animation, storyboards and sequential narratives. Students will concentrate on using storytelling techniques and experiential structures to provide a viewer with an immersive experience. Prerequisite(s): VIS 116 and VIS 122 Credits: 3
(2,2)

VIS 232 Graphic Design II

Students will continue to explore the creative process that helps them communicate ideas and information to a target audience. The general principles studied and practiced in this course are based on the formal integration of type and image to convey meaning. A further refinement of the student's personal aesthetic will be encouraged. Graphic Design II will introduce higher level, theoretical ideas related to communication, design and cognitive theories. Students will work with a variety of traditional and digital media. Prerequisite(s): VIS 222 Credits: 3
(2,2)

VIS 234 Design Production II

Design Production II continues to deal with how to professionally execute Graphic Design concepts with more advanced ideas and technology. The primary software tools include advanced print, web, rich-media and interactive design, with more emphasis placed on web-oriented projects. Outside resources will be used for general software instruction. Classroom focus will be on the use of the best practices with emphasis on the use of the software in the production of real world projects and problems Prerequisite(s): VIS 226 Credits: 3
(2,2)

VIS 236 Typography II

This course will offer the students the opportunity to refine their skills in typographic design and application using digital technology. Class discussions, projects and critiques will concentrate on the crucial role of typography and the relationship of type as image in contemporary graphic design. Students will learn advanced techniques and refine typographic design skills while exploring the many ways in which typography can be utilized to express the message of design. Prerequisite(s): VIS 222, VIS 226 Credits: 3
(2,2)

VIS 238 Illustration for Graphic Designers

An understanding of illustration can help graphic designers to create more conceptually powerful designs and to differentiate their work from the competition. This course will focus on sketching and drawing to facilitate the efficient communication of ideas from the initial thumbnail sketch through to a finished piece. Design projects will be solved through the integration of traditional design skills, with illustrations created in a variety of media. It will provide insight into the language and practice of illustration while offering graphic design students the opportunity to develop a personal approach to illustration that can become integral to their design work. Prerequisite(s): VIS 120 and 222 Credits: 3
(2,2)

VIS 240 Publication Design I

A survey of the concepts and applications of graphic design, typography and page layout as they pertain to publication design. This course is intended for students enrolled in the Professional Communications curriculum. Emphasis will be placed on effective communication, aesthetics, and conformity to corporate identity guidelines. Prerequisite(s): BCS 102 Credits: 3
(3,0)

VIS 242 Publication Design II

The continuing exploration of graphic design, typography and page layout as they pertain to publication design. This course is intended for students enrolled in the Professional Communications curriculum. Students will apply the concepts learned in prerequisite coursework to a variety of publication projects utilizing professional page layout software. Prerequisite(s): VIS 116 Credits: 3
(3,0)

VIS 250 Photography II

Students will continue to examine the concepts and techniques for proper lighting, exposure, focus, depth-of-field, and creative composition. Using electronic media, students explore the production and processing of digital image making and the application of studio techniques. Advanced technical skills for digital photography are covered to increase student awareness of photographic methods necessary for commercial communication, advertising, and photojournalism. Using digital photographic technologies, students experiment and further develop their understanding of the photograph as a vehicle for communicating ideas. Prerequisite(s): Department approval or VIS 225. Credits: 3
(2,2)

VIS 252 Drawing and Painting Techniques

This course will offer an advanced study and exploration of painting and drawing techniques. Students will be expected to enter the course with a proficiency of drawing skills having completed Drawing I, Drawing II and Figure Drawing as prerequisites. Students will acquire a wide range of skills related to drawing and painting. Advanced techniques and media will enable students to attain a higher level of artistic self-expression. Prerequisite(s): VIS 120 Credits: 3
(2,2)

VIS 254 Package Design

This course applies the principles of graphic design, typography and three-dimensional design to the specialized area of package design. Students may design labels, boxes, containers and other types of consumer packaging materials, in addition to point-of-purchase displays. Factors influencing the designs will include manufacturing, printing, digital technology, consumer appeal and tampering and label regulations. Prerequisite(s): VIS 112, 122 and 210 Credits: 3
(2,2)

VIS 256 Foundations of Illustrations

Foundations of Illustration is a course which teaches the multiple stages of the creative process of picture making. Study will explore research of conceptual ideas to effectively precede the execution of a successful illustration. The formal issues of color, light, structure, space and composition are emphasized. Developing an illustration will entail the conceptual thought process to the visual execution of the idea. Preliminary drawings, reference material and photographic sources are combined to assist the student in creating illustrated work. Prerequisite(s): Department approval or VIS 214. Credits: 3
(2,2)

VIS 260 Graphic Design for Non-Majors

Graphic Design for Non-Majors introduces the principles and processes of graphic design. Emphasis will be on conceptual development, organization of information and effective communication with the formal integration of type and imagery. Students will learn to think critically, make aesthetic judgments, and become familiar with a variety of tools and techniques used to produce work in the fields of design. Credits: 3
(2,2)

VIS 265 Web Design for Non-Majors

Web design encompasses many different skills and disciplines in the production and maintenance of websites. This course will introduce students to the planning, designing and constructing of layouts in web development and interactive design for the internet and screen devices. Course content includes discussions of layout, composition, planning, constructing and maintaining a website. Credits: 3
(2,2)

VIS 280 Introduction to Illustrator

Adobe Illustrator graphic design software is used by graphic designers, web designers, and artists to create vector drawings and imagery for use in different media and platforms. This course will introduce students to the creation of original vector images and artwork, and explore digital illustration techniques to create imagery for a variety of projects and products. These skills will enable the student to properly use the industry's premier vector drawing program. This course runs for five (5) weeks. Registration must be completed during normal registration period. Credits: 1
(0,3)

VIS 281 Introduction to Photoshop

Adobe Photoshop is the industry standard photo editing software used by photographers, graphic and web designers, videographers, and artists to enhance and manipulate photos and create original digital artwork. This course will introduce students to the use of this software to create original artwork, edit, restore and retouch existing photography, correct and modify color and explore different digital image techniques to create composites and simulating a variety of special effects. This course runs for five (5) weeks. Registration must be completed during normal registration period. Credits: 1
(0,3)

VIS 282 Photoshop for the Web

Adobe Photoshop is a powerful photo editing software package used by web designers to create original imagery and artwork for web sites and development. This course will further enhance students understanding of this software to create original artwork and prepare it for use on the Internet and screen devices. This course runs for five (5) weeks. Registration must be completed during normal registration period. Prerequisite(s): VIS 281 Credits: 1
(0,3)

VIS 283 Introduction to Dreamweaver

Adobe Dreamweaver is the industry-leading web authoring and editing software providing both visual and code-level capabilities for web development and design. This course will introduce students to the use of the fundamentals of Dreamweaver to create and manage web pages and fully functional web sites with an emphasis on best practices and current web standards. This course runs for five (5) weeks. Registration must be completed during normal registration period. Credits: 1
(0,3)

VIS 284 Introduction to InDesign

Adobe InDesign is a design and layout program used to create publications for print, interactive pdf documents, digital magazines, and EPUBs. By combining text, imagery, and graphic elements created from a variety of sources InDesign allows you to create engaging layouts from single pages to multiple page documents and publications. In this introductory course, you will discover the flexibility and outstanding typography features of this program, work with color, imagery and graphics, and prepare professional-level publications for output for multiple platforms. This course runs for five (5) weeks. Registration must be completed during normal registration period. Credits: 1
(0,3)

VIS 285 Basic HTML/CSS Graphic Design

Understanding the principles behind web design as expressed through HTML and CSS is a necessity for designers. Having an understanding of HTML/CSS translates to designs and interfaces that function well. This course will introduce the language, structure and semantic language of HTML and CSS. It will also include instruction on how to utilize and style text, images, forms, and layout. This course runs for five (5) weeks. Registration must be completed during normal registration period. Credits: 1
(0,3)

VIS 312 Art and Creative Direction

The goal of the course will be to explore the skills and responsibilities demanded for a position as an Art Director or Creative Director as it pertains to working in advertising or editorial design. Students will explore different approaches to creative problem solving combining words and images resulting in strong conceptual work. Students will complete their designs toward a client presentation, and make critical decisions along the way on how the work would ultimately be produced. Prerequisite(s): VIS 222 Credits: 3
(2,2)

VIS 328 Industry Topics Seminar

Presented by instructors and guest lecturers in a seminar format that will integrate a series of relevant topics and issues that students will encounter in their career. The objective of this course is to provide varied perspectives and insights to supplement the learning experiences the students have encountered throughout the curriculum. Credits: 1
(1,0)

VIS 332 Graphic Design III

Students will combine their knowledge of type and image, communication theories, problem solving techniques and conceptual skills developed in Graphic Design I and II to create integrated solutions to multi-part, sophisticated design and communication problems. Students will be introduced to Strategic Design concepts that help produce successful solutions to complex design problems. Prerequisite(s): VIS 232 Credits: 3
(2,2)

VIS 334 Design Production III

Design Production III, will be the culmination of the student's Design Production studies where tools and technology are utilized to professionally execute advanced design projects. Outside resources will be used for software training and classroom time will focus on software integration and workflow, advanced web concepts and execution of sophisticated communication concepts. The primary focus on software will continue to include both print and web, rich-media and interactive. Prerequisite(s): VIS 234 Credits: 3
(2,2)

VIS 336 Advertising I

Advertising is the art of persuasion and as designers we greatly influence the choices made by consumers. In this course students will learn the fundamental aspects of this significant field with an emphasis on the conceptual development, design methodology, creative writing and clear communication necessary to motivate the consumer to action. The basic principles of advertising will be presented, from creative writing to branding consistency and integrity. Graphic design skills in conjunction with these advertising essentials will be encouraged and expected. The hierarchy and structure of an advertising agency will be discussed to provide students with a realistic view of the industry. Prerequisite(s): VIS 232 and 234 Credits: 3
(2,2)

VIS 340 Industry Preparation

Students will explore and develop professional practices to gain future employment in the design field and attain professional success. While students will not be creating a portfolio in this class, they will be introduced to the varied options available for multifunctional portfolios and will choose which option would best promote their work. An emphasis will be placed on defining, organizing, and developing self-promotion, as well as marketing materials. It will also encompass job search strategies, interview skills, and industry best practices. Prerequisite(s): VIS 332 and 334 or IxD 320 and IxD 322 Credits: 3
(2,2)

VIS 346 Advertising II

This course builds upon the principles that were studied in Advertising I and allows for a more concentrated exploration into the myriad of ways to reach a consumer. This course encompasses conceptualization, design and production of actual advertising campaigns. Students will work individually and in teams to complete projects based on client direction and budget restrictions. Traditional and developing media venues will be considered with an emphasis on appropriate and unique creative solutions to advertising problems. Prerequisite(s): VIS 336 Credits: 3
(2,2)

VIS 353 Editorial Design

Emphasis in this class will be on the creation of multiple page documents for the editorial design market. Students will explore numerous avenues for editorial design including, magazine, catalog, newspaper and book design, while gaining the advanced software skills needed for the creation of these documents. Prerequisite(s): VIS 370 Credits: 3
(2,2)

VIS 354 Corporate Identity

This course will explore the visual components behind creating and establishing a corporate identity. Corporations require logos, signs and symbols as part of an elaborate identification system. Visual imagery related to the corporation projects a positive image and public perception of a corporation's identity. This class will explore creative solutions that define and present "corporate identity" through visual imagery. Prerequisite(s): VIS 222 and 230 Credits: 3
(2,2)

VIS 355 Advanced Package Design

The design of consumer product packaging must meet the complex and sometimes conflicting needs of manufacturers, distributors, retailers and consumers. Building upon the fundamental package design concepts and problem-solving skills developed in prerequisite coursework, students will learn advanced techniques for the creation of sophisticated package designs through the use of both traditional and digital layout, typography, graphics, photography, as well as two-dimensional and three-dimensional design techniques. Prerequisite(s): VIS 254 Credits: 3
(2,2)

VIS 356 Internship I

A select number of students who meet specific standards will be given the special opportunity to intern at industry related companies and organizations. Students will adhere to strict guidelines completing their internship in a professional environment. Students will gain valuable knowledge and typically improve their technical skills. Prerequisite(s): Completion of 60 credits with a GPA of 3.0 in the Visual Communications curriculum and department approval required.
Credits: 3
(1,0,6)

VIS 357 Internship II

This special elective, available to individually selected students, offers an additional education/work combination that provides valuable professional experience within the art field. This is a unique opportunity to gain knowledge that may not otherwise be attainable within a traditional educational setting. Prerequisite(s): Department approval.
Credits: 3
(1,0,6)

VIS 371 Animation

An exploration of animation techniques and applications from early development to current works and future trends. Students will study selected traditional and electronic animation sequences from the initial storyboard stage through the finished production. The emphasis of this course will be on computer animation with application to interactive presentation, CD-ROMs and the Internet. Prerequisite(s): VIS 210 and 230 Credits: 3
(2,2)

VIS 373 Multi-Media

Students will learn to combine graphics, animated "gif" files, video and sound files to create linear and interactive presentations. Graphic design, typography, interface design and information organization will be emphasized. Prerequisite(s): VIS 310 Credits: 3
(2,2)

VIS 380 Illustrative Style I

Students explore new styles and media. Reference and support material coursework will be acquired though research of reading materials pertaining to illustration techniques. In and out of class research will be applied through recreating the process and procedures utilized by illustration professionals to solve specific problems. Prerequisite(s): VIS 252 or 256 Credits: 3
(2,2)

VIS 381 Figure Drawing II

A drawing class designed for the illustration track student that will expand on many of the concepts first introduced in the Figure Drawing I (VIS 214) class. A variety of mediums will be incorporated including pencil, charcoal, conte, ink pastel, among others. Prerequisite(s): VIS 214 Credits: 3
(2,2)

VIS 382 Illustrative Style II

Continue to encourage experimentation in solving pictorial problems. By semester's end, each student's goal will be to visually communicate with a consistent medium and personal style to their work. Prerequisite(s): VIS 380 Credits: 3
(2,2)

VIS 383 Sculpting and Painting the Figure

This course builds on the prerequisites VIS 214 and VIS 381. However, the medium of paint and clay are introduced into this class to expose the student to a new medium approach to representing the human figure. Approximately one-quarter of the class is devoted to three-dimensional representation of the figure through modeling the nude figure in clay. The remaining three-quarters of the class are devoted to the medium of painting the nude and clothed human figure. Prerequisite(s): VIS 214 Credits: 3
(2,2)

VIS 410 Digital Imaging II

This course will build upon prior knowledge and experience with digital images to help students broaden their understanding and creative use of digital imaging concepts and techniques. Topics will relate to graphic design, illustration, print production and web page design applications. Prerequisite(s): VIS 310 Credits: 3
(2,2)

VIS 412 Web Page Design

The theoretical and practical exploration of the fundamentals of two dimensional design, layout and typography as they pertain to web site design. Students will visit many different types and styles of web sites and learn to analyze them for creative design, organization of content, flow and navigation. By visiting and discussing sites that are well-designed as well as those that are poorly designed, students will themselves become better web site designers. Prerequisite(s): VIS 150 or 210 and VIS 310 Credits: 3
(3,1)

VIS 414 Interaction Design

Interaction Design is an advanced course that pushes students understanding of web page creation to include the methodologies, concepts and strategy of designing user experiences. Interaction Design will stress the planning, design, and production of effective user interface design, information design and information architecture based upon web standards and best practices. The course will also introduce the student to advanced web creation tools including the design for specific digital devices. Students will produce a variety of concepts-from rough pencil sketches to digital prototypes-in a rigorous environment. Prerequisite(s): VIS 332, 334 both with a Grade of C+ or higher Credits: 3
(2,2)

VIS 416 Senior Project I

The Senior Project I class is the capstone of the Visual Communications baccalaureate experience. In this course students will be developing and defining their own voice in both written and visual form. Students will begin to develop a self-directed project that will culminate in Senior Project II, VIS 426, with a book, portfolio and exhibition. The individual creative process will be encouraged through research, experimentation, writing and critique. Prerequisite(s): VIS 414 with a grade of C+ or better Credits: 3
(2,2)

VIS 418 Portfolio

The Portfolio class is one of the capstone courses of the Visual Communications baccalaureate experience. In this final semester students will produce a series of professional quality works of art, which will be displayed in a senior exhibition and portfolio. A series of group critiques with both internal and external reviewers will aid in the development of this body of work as well as strengthen the students' ability to professionally present and defend their artwork. Prerequisite(s): VIS 416 with a grade of C+ or higher Corequisite(s): VIS 426 Credits: 3
(2,2)

VIS 426 Senior Project II

The Senior Project II class is one of the capstone courses of the Visual Communications baccalaureate experience. In this final semester students will produce a series of professional quality works of art, which will be displayed in a senior exhibition and book. A series of group critiques with both internal and external reviewers will aid in the development of this body of work as well as strengthen the students' ability to professionally present and defend their artwork. Prerequisite(s): VIS 416 Corequisite(s): VIS 418 Credits: 3
(2,2)

VIS 474 Agency I

In this course, students will gain valuable experience by working on actual projects for selected not-for-profit clients. This pro-bono work will provide students the opportunity to develop professional quality samples for their portfolios, while further developing skills in design, production, presentation and job-tracking. Interpersonal and communication skills within a corporate environment will be emphasized. Enrollment in this course requires portfolio review by a faculty committee. Prerequisite(s): VIS 372 Credits: 3
(2,2)

VIS 476 Agency II

As a continuation of Agency I, this course will enable students to follow through on long-term or large projects to completion. Students will continue to gain valuable experience by working on actual projects for selected not-for-profit clients. Enrollment in this course requires a portfolio review by a faculty committee. Prerequisite(s): VIS 372 Credits: 3
(2,2)

VIS 484 Illustration Portfolio I

In this course, students will use all the technical skills, conceptual abilities and general knowledge accumulated throughout their illustration education, to develop their illustration portfolios. Presentation, marketing and business issues facing today's illustrator will be discussed. Prerequisite(s): VIS 382 Credits: 2
(1,3)

VIS 485 Illustration Portfolio II

Techniques for illustrating ideas, concepts or emotions. Elicit a personal, creative interpretation of words and ideas from literature, music, film and editorial text. The goal will be to transform one form of art into another, from verbal to visual. Selection of the most appropriate medium and style to make text and art come together for a highly effective interpretation. Prerequisite(s): VIS 382 Credits: 3
(2,2)

VIS 487 Drawing and Painting Studio

A class designed for Senior Illustration students. A series of specific advanced projects will be assigned in order for the Senior Illustration student to produce a portfolio of high quality works which display an acute awareness of contemporary trends. Credits: 3
(2,2)

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  Chancellor's Award for Excellence in
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  Farmingdale Foundation Award for
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Chancellor's Award for Excellence in
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    Teaching, 2017

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    Chancellor's Award for Scholarship &
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    PhD, Muroran Institute of
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    Chancellor's Award for Excellence in
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    ME, Professional Degree,
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    PhD, EdD, St. John's University

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BSDH, MSDH, Old Dominion University
EdD, Columbia University
Chancellor's Award for Excellence in Teaching, 2004

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Farmingdale Foundation Award for Excellence in Teaching, 2016

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Chancellor's Award for Excellence in Teaching, 2014

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Farmingdale Foundation Award for Excellence in Teaching, 2004
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    Chancellor's Award for Excellence
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    Chancellor's Award for Excellence
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    Chancellor's Award for Scholarship &
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    NYS/UUP Excellence Award, 1991

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    BSME, University of Boroda
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    BS, MS, New Jersey Institute of
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    PhD, University of Virginia

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    Chancellor's Award for Excellence
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    Farmingdale Foundation Award for
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    Chancellors Award for Excellence in
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Farmingdale State College Chancellor's Awards Recipients Established in 1973

The Chancellor's Awards for Excellence were established in 1973 to give recognition to outstanding educators throughout the State of New York.

As of May 2018, Farmingdale State College faculty, staff, librarians and students have received the Chancellor's Award 198 times.

Distinguished Teaching Professor:

Dr. Harold Highland .... Data Processing

Dr. I. Edward Alcamo .... Biology

Dr. John A. Winn .... Mathematics

Dr. Miriam K. Deitsch .... Sociology

Dr. Ann R. Shapiro .... English

Dr. Sheldon P. Gordon .... Mathematics

Dr. Vicki K. Janik .... Professional Communications

Dr. John Fiorillo .... Electrical Engineering Technology

Distinguished Service Professor:

Prof. Casimir Rakowski .... Mechanical Engineering Technology

Dr. Charles Fishman .... English

Prof. Cornelius P. McAdorey .... English

Dr. Hazem Tawfik .... Mechanical Engineering Technology

Dr. Amit Bandyopadhyay .... Architecture/ Construction Management

Prof. Yelleshpur Dathatri .... Electrical Engineering Technology

Prof. Serdar Z. Elgun .... Mechanical Engineering Technology

Dr. Daniel S. Marrone .... Business Management

Excellence in Teaching:

Prof. Casimir Rakowski .... Mechanical Technology

Dr. Austin Frishman .... Biology

Prof. Ronald Dougher .... Social Science

Dr. Abraham Blinderman .... English

Prof. Stanley Mehlman .... Chemistry

Dr. Harvey Barke .... Horticulture

Prof. Anne Senyk .... Sociology

Dr. Edwin F. Ore .... English

Dr. Philip Silverstein .... Dental Hygiene

Dr. Harold Highland .... Data Processing

Dr. Stanley Lamberg .... Medical Laboratory Technology

Prof. Cheryl Hicks .... Secretarial Science

Dr. Michael Abbatiello .... Veterinary Science

Dr. Frank Pellegrini .... Chemistry

Dr. Charles Fishman .... English

Prof. James Friel .... English

Dr. Richard Telloni .... Agriculture

Dr. Frank Cavaioli .... History, Economics, Politics

Dr. Lois Rafenski .... Nursing

Dr. Stanley Feist .... Psychology

Dr. I. Edward Alcamo .... Biology

Prof. Carolyn Cuttler .... Office Management

Dr. Roger Hoffman .... Psychology

Prof. Eileen Eichler .... Business

Prof. Linda Calderone .... Business

Dr. Marlene San Miguel Groner .... English

Dr. Philip Poynor .... Aerospace Technology

Dr. Laurie Rozakis .... English/Humanities

Dr. John Fiorillo .... Electrical Engineering Technology

Prof. Angela Blas .... Business & Computer Information Systems

Dr. Lois Mignone .... Modern Languages

Dr. Peter Nolan .... Physics

Prof. Gary Rupp .... Business & Computer Information Systems

Prof. Melanie Vainder .... English/Professional Communications

Dr. Alexander Short .... Business

Dr. Miriam K. Deitsch .... College Studies

Dr. Gary Brown .... Biology

Prof. Judith Friedman .... Dental Hygiene

Dr. Barry Capella .... English

Dr. Matilde Fava .... Modern Languages

Dr. Henry Sikorski .... English/Humanities

Prof. Joseph Betz .... Architecture/ Construction Management

Dr. Vicki Janik .... English/Humanities

Prof. Sharon Struminger .... Dental Hygiene

Dr. Louise Napolitano-Carman .... English/Humanities

Prof. Margaret Porciello .... Computer Systems

Dr. Charles N. Adair .... Biology

Dr. Mary Stedman .... Nursing

Dr. Agnes Kalemaris .... Mathematics

Dr. Laura Mueller-Joseph .... Dental Hygiene

Dr. Michael Goodstone .... Psychology

Dr. Diane M. Smith .... English

Dr. Richard R. Iversen .... Urban Horticulture and Design

Dr. Margery L. Brown .... English/Humanities

Dr. Marcia B. Littenberg .... English/Humanities

Prof. Henry M. Bojack .... Computer Systems

Prof. Allison J. Puff .... Visual Communications

Dr. Jeffrey Gaab .... History

Dr. Karen Escolas .... Medical Laboratory

Dr. Marie Pullan .... Computer Systems

Dr. Mary Villani .... Computer Systems

Prof. Donna Proper .... Visual Communications

Dr. Jennifer Bryer .... Nursing

Dr. Luisa Nappo-Dattoma .... Dental Hygiene

Dr. Kathleen Walsh .... Nursing

Prof. George Fernandez .... Visual Communications

Dr. Sarah Gross .... Biology

Prof. Janet Gruber .... Dental Hygiene

Dr. Arthur Hoskey .... Computer Systems

Prof. Orla Smyth-LoPiccolo .... Architecture/ Construction Management

Dr. Jonathan Lehrer .... Urban Horticulture and Design

Excellence in Adjunct Teaching:

Prof. Howard Gold .... Professional Communications

Prof. Robert Seyler .... Automotive & Mechanical Engineering Technology

Prof. Susan Candia .... English/Humanities

Prof. John DeCarlo .... Professional Communications

Dr. Jack Thomas .... Biology

Prof. Amanda Lavery .... Biology

Prof. Joseph Rossi .... Criminal Justice

Prof. William Dodge .... Professional Communications

Prof. Jennifer Mignano-Brady .... English & Humanities

Prof. Maria Randazzo-Davis .... Business Management

Prof. David Guarino .... Visual Communications

Excellence in Librarianship:

Ms. Carol Greenholz

Ms. Judi Bird

Ms. Theresa Zahor

Excellence in Faculty Service: (Est. in 2004)

Prof. William Steedle .... Visual Communications

Dr. Kathleen Jacquette .... English

Prof. Marjaneh Issapour .... Electrical Engineering Technology

Prof. Ruth Sapir .... Computer Systems

Dr. Lloyd Makarowitz .... Physics

Dr. Joanne Lapidus-Graham .... Nursing

Prof. Wayne Krush .... Visual Communications

Dr. Matilde Fava .... Modern Languages

Dr. Susan Barrett-Landau .... Nursing

Dr. Fran Cherkis .... Nursing

Excellence for Scholarship & Creative Activities:

Dr. Daniel S. Marrone .... Business Management

Dr. Ahmed Ibrahim .... Mechanical Engineering Technology

Dr. Robert Saunders .... History Politics and Geography

Prof. Thomas Germano .... Visual Communications

Excellence in Professional Service:

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Mr. Ramon Rodriguez .... Student Affairs

Ms. Ann Diehl .... Continuing Education

Ms. Janet Snyder .... Admissions

Mr. Reginald T. Marshall .... Learning Center

Ms. Kathy Kollar .... Office Management

Mr. Fred Harrison .... Physical Plant

Mr. Wayne T. Clavering .... Outcomes Assessment

Mr. Michael Knauth .... Head Librarian

Ms. Terry Esnes-Johnson .... Dean of Students

Mr. Jack C. Petrich .... Physical Plant

Ms. Charlette Bleecker .... Dental Hygiene

Ms. Valerie Madeska .... Medical Laboratory Technology

Mr. Brian Maher .... LIEOC

Ms. Kathryn S. Coley .... Communications

Mr. Michael Harrington .... Athletics

Ms. Lucille Wesnofske .... Small Business Development Center

Ms. Diane E. Melamed .... Student Accounts

Mr. John W. Hendrickson .... Construction/ Architectural Management

Ms. Saundra Lory-Snyder .... Undeclared Major

Ms. Marguerite Fagella-D'Aloisio .... Student Affairs

Mr. Peter Greco .... Visual Communications

Ms. Cindy McCue .... Registrar

Mr. Tom Azzara .... Athletics

Mr. Kenneth J. Tax .... Engineering Technology

Ms. Theresa Dember-Neal .... Instructional Support Technology

Ms. Carol McNamara .... Dental Hygiene

Mr. Daniel T. Arcieri .... Biology

Ms. Sylvia E. Nicosia .... Web Support and Development

Excellence in Classified Service: (Est. in 2009)

Ms. Amy Kaplan .... Human Resources

Ms. Nina Von Deesten .... Modern Languages and History, Economics & Politics

Mr. Daniel Daugherty .... University Police

Ms. Christine Dose .... Student Affairs

Ms. Deborah Faulhaber .... Health Sciences

Ms. Barbara Sarringer .... Psychology

Ms. Vanda Bordies .... Urban Horticulture and Design

Ms. Keri Hauff .... University Police

Ms. Mary-Beth Liegmann .... School of Business

Chancellor's Award for Student Excellence: (Est. in 1998)

Ms. Karen Conner .... Business Administration

Mr. Michael Rodriquez .... Aviation Administration

Ms. Eileen Therese Sullivan .... Management Technology

Mr. Jonathan Friedfertig .... Management Technology

Ms. Shirley Mohan .... Computer Systems Technology

Mr. Christopher Weppler .... Management Technology

Ms. Diane Bachor .... Technical Communications

Ms. Maria Orellana .... Management Technology

Mr. Matthew Preston .... Professional Pilot

Ms. Belinda Rodriguez .... Computer Programming & Information Systems

Ms. Prathibha Mohan .... Computer Science

Mr. Justin Schulz .... Aviation Administration

Ms. Nikiesha White .... Computer Programming & Information Systems

Mr. Jonathan Spolidora .... Business Administration

Ms. Sasha Lee Dawes .... Business Administration

Ms. Cecilia Ambros .... Visual Communications

Ms. Stephanie Marinelli .... Nursing

Mr. Shawn Moir .... Aviation

Ms. Elizabeth Reilly .... Nursing

Mr. Patric Santiago .... Business Administration

Mr. Arnim Mondesir .... Management Technology

Ms. Shari Romar .... Urban Horticulture and Design

Mr. Brett Southard .... Computer Programming & Information Systems

Farmingdale State College
Chancellor's Awards Recipients continued

Mr. Michael Tobin.............................Bioscience

Ms. Denise Botiglione........................Management Technology

Ms. Robin Dunn ....Business Administration

Ms. Rachele Fischer ....Liberal Arts and Sciences

Ms. April Orthner ....Management Technology

Ms. Janine Segalini............................Computer Programming & Information Systems

Ms. Delia Sarich................................Professional Communications

Ms. Lauren Fink .... Business Management

Mr. Frank Rampello............................ Professional Communications

Ms. Cheryl Williams .... Nursing

Ms. Nicole Andre .... Bioscience

Ms. Kathleen Flanagan .... Bioscience

Mr. Anthony Sbrocco.......................... Business Management

Mr. Matthew Dorsey........................... Business Management

Ms. Elena Lee.................................... Visual Communications

Ms. Mary O'Neil .... Nursing

Mr. Aristoteli Dorizas.......................... Technology Studies

Ms. Lauren D'Alesandro .... Dental Hygiene

Mr. Andrew Hesse.............................. Bioscience and Applied Mathematics

Ms. Jaimie Dorr................................. Business Management

Mr. Salvatore Hanusiewicz .... Computer Programming and Applied Mathematics

Ms. Amy Olenick................................ Nursing

Mr. David Olivo.................................. Dental Hygiene

Ms. Christine Deeks........................... Dental Hygiene

Ms. Jessica Micallef........................... Professional Communications

Ms. Tara Polla.................................... Nursing

Ms. Joy Grynko................................. Applied Psychology

Ms. Kristine Meyer .... Nursing

Mr. John Scuteri................................ Computer Programming & Information Systems

Ms. Jade Truong .... Bioscience

Ms. Sarina Turbendian........................ Professional Communications

Ms. Elizabeth Calvente .... Bioscience

Mr. John M. Campbell......................... Bioscience

Ms. Shannon Vollmer......................... Applied Math

Ms. Vianna M. Reyes Duran .... Business Management

Ms. Kristen Ranaldo .... Dental Hygiene

Ms. Kristin Bonura .... Nursing

Ms. Kimberly Gleason......................... Applied Psychology

Ms. Kinza Nadeem Kasher .... Visual Communications

Ms. Alexa Artemis Toyas .... Professional Communications

Ms. Jessica Ann Daddino.................... Nursing

Ms. Kristine Lycke.............................. Applied Psychology

Mr. Oscar Polanco-Reynoso .... Applied Economics

Mr. Shaquille Saillant .... Visual Communications

Ms. Samantha Stettnisch .... Bioscience

Ms. Carly Vittoria .... Nursing

Mr. Robert Adolfsen............................ Automotive & Mechanical Engineering Technology

Mr. Bradley Correia............................ Nursing

Ms. Emily McCue .... Nursing

Mr. Daniel Parks................................ Automotive & Mechanical Engineering Technology

Mr. Matthew Schinasi .... Applied Psychology

FACULTY EMERITI

Yelleshpur Dathatri
Distinguished Service Professor

Charles Fishman
Distinguished Service Professor

Sheldon Gordon
Distinguished Teaching
Professor

Cornelius R. McAdorey
Distinguished Service Professor

Ann R. Shapiro
Distinguished Teaching
Professor

John Winn
Distinguished Teaching
Professor

Daniel Scott Marrone
Distinguished Teaching
Professor

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Dorothy Allen
Bengt Anderson
Jane G. Annis
William Austin
Charles Badowski
Salvador Barbasso
Gwendolyn Barckley
Albert M. Barker
Paul K. Baumann
Paul Bedell
Victor Bellard
Judith Bird
Robert C. Blank
Angela Blas
Abraham Blinderman
Marilyn Blumenthal
Kenneth Bowers
Dolores Bradley
Theresa Branciforte
Harold Brenner
Gary Brown
Stephen Brozak
John F. Burkart
Linda Calderone
Barry John Capella
Maureen Capone
Frank Cavioli
Helene Cerky
Horice Clapp
Herbert Cohen
Jerome Cohen
David Conford
Francis X. Corrigan
Howard Crandell
Peggy Rogers Crichton
Philip Cruz
Robert Culver
Norma Curchack
Angela Danzi
Joseph DeFalco
Bernard Defrin
Nicholas Dietz
Leo R. DiLiello
Gary Dittmer
Lois Donard
Henry Dondero
Daniel Dowd
Raymond Dunstan

Charles Ehlers
Eileen Eichler
Oscar Eichmann
John Erdell
Charles Erlanger
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David T. Ferrier
Gary Ferrigno
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Julie Rae Friedman
Louis Friedman
Helmuth F. Fuchs
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Richard Game
Edward Garcia
Joan Gardner
Ralph A. Giannotti
Robert Gladwish
Edith Glantz
Donald Green
David Greene
Gertrude Glass
David Griese
Donald W. Griffiths
William V. Grolli
Marian Gromet
Massoud Hakimian
Nicholas Harding
Jeffrey Hartman
Kathleen Hawryluk
Marie Hayden-Miles
Veronica Henry
Robert Hess
Cheryl Hicks
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Roger Hoffman
John W. Holt
Steven Holzman
Colleen Hosp
Louis Howard
Evelyn Hyatt
John Hyde
Eugene Indenbaum
Richard Iversen
Leroy Ingham
James O. Irwin
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Carleton E. Judd
Beverly Kahn
Armand Kamp
Mia Katonah
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Michael Knauth
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Abdul Naseerm
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Jean Newman
Naomi Newman
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Peter Nolan
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Dashamir Petrela
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Elfrida J. Phelps
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ADVISORY COMMITTEES

In order to keep the instructional program constantly up-to-date and responsive to the needs of industry and business, the College relies on Advisory Committees. The members of these committees serve as consultants and advisors to the departments, with special regard to new applications of science and technology, new methods and materials, and trends in employment. The College is fortunate in having this continuing association with so many leaders in business, industry, and the professions.

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    Vice President
    Senior Business Relationship Manager
    HSBC Bank USA NA

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    MS, Aeronautical Engineering

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    Creative Innovator
    CareerSmarts

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    Vice President of Human Resources
    American Express

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    HR Business Manager
    Metro-North Railroad

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    Iona College

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    Department of Psychology
    The College of New Rochelle

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    School Psychology
    St. John's University

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    Retired

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    Prologis- Airport Facilities Group

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    Francis S. Gabreski Airport
    Airport Manager

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    Cathay Pacific Airways
    JFK Airport Manager

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    Jet Blue Airways

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    United Airlines

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    Pinnacle Airlines

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    Chief Meteorologist
    News 12, Long Island

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    Sheltair Aviation

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    Islip-MacArthur Airport

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    Executive Director
    Pharmaceutical R&D

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    Independent Consultant

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    North Shore University Hospital

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    Accounting Assistant
    Republic Airport

Ms. Patti Stoff
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    PSA Management Company

Mr. Stanley Stone
    CEO/Founder
    Greystone Business Solutions

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    VP of Digital Technologies
    Comtech PST

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    Manager, Engineering Lab Services
    Aerospace Avionics, Inc.

Dr. William Vojir
    Technical Manager R & D
    Northrop Grumman Corp

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Project Leader
MedNet Technologies

Ms. Lisa Doll
Co-Founder/ VP of Staffing
Career Direction

Mr. Basamba Jawo
Senior Solutions Engineer
Vicom Computer Services

Ms. Cira Morgillo
Programmer/Analyst Level 4
Long Island Railroad

Ms. Louisa Petsitis
IS Security Analyst II
1199SEIU Benefit and Pension Funds

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Town of Brookhaven

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Senior Project Manager
H²M Group

Mr. Victor Canseco
Owner/Operator
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Mr. Paul O'Rourke
Vice President of Operations
EW Howell Co., Inc.

CRIMINAL JUSTICE

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Senior Police Advisor
IACP (International Association
of Chiefs of Police)

Mr. John Gallagher
Police Commissioner (ret.)
Suffolk County Police Department

Mr. Joseph L. Monteith
Law Enforcement &
Security Consultant

Mr. Patrick Ryder
Commanding Officer
Asset Forfeiture and Intelligence
Nassau County Police Department

Mr. Daniel Sheehan
Deputy Commanding Officer
Internal Affairs Unit
Nassau County Police Department

DENTAL HYGIENE

Dr. Scott R. Firestone
Private Practice
Melville, New York

Ms. Donna Hickey
Registered Dental Hygienist

Dr. Kenneth Johannesen
Chief, Dental Service
Northport VA Medical Center

Ms. Maureen P. Knott
Vice President-Product Advertising
Henry Schein Inc

Dr. Allan J. Kucine
Clinical Asst. Professor
School of Dental Medicine
Stony Brook University

Ms. Dorothy LaFerrera
Director of Operations
State of New York Department of Health

Dr. Leonard Marotta
Proprietor Dental Laboratory on L.I.
Adjunct Faculty
New York University College of
Dental Medicine

Dr. Robert Mitchell Peskin
General Dentistry
Dental Anesthesiology

Dr. Christopher Jude Salierno
Broadhollow Dentistry LLP
Mt. Sinai Family Dental

Dr. Carol A. Sloane
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Director of Clinic Operation
Stony Brook University, School of
Dental Medicine

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and Outreach
Healthplex, Inc.

Dr. Steven Marshall Zove
Acting Associate Dean for
Clinical Affairs
School of Dental Medicine
Stony Brook University

ELECTRICAL ENGINEERING TECHNOLOGY

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Project Engineer
Telephonics Corporation

Mr. Gary R. Johnson
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Conformity Assessment Services,
US East
Underwriters Laboratories

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SUNY Health Science Center
at Brooklyn

Dr. William Vojir
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Northrop - Grumman Corporation

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BAE Systems

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Sr. Portfolio Manager
Cushman & Wakefield Inc.

Mr. David Fornieri
Onyx Management Group, LLC

Mr. John Lucchi
Senior Stationary Engineer
Dept. of Homeless Services
City of New York

Mr. Lufus Owusu
Property Manager
Verizon Communications Inc, NY

Mr. Howard Pobliner
Certified Facility Manager
American Society of
Mechanical Engineers

Mr. James Ramos
Assistant Project Coordinator
Farmingdale State College

Mr. Steven Saraniero, AIA
Partner
William Collins, AIA Architects, LLP

LIBERAL ARTS AND SCIENCES

Mr. Amer Si Mohand
Registered Manager
The Richmond Psycho-Social
Foundation International

Ms. Joan Timberlake
Co Creator
Timberlake-Oliver Literary Services

MECHANICAL / MANUFACTURING ENGINEERING TECHNOLOGY

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Barna Technology Inc.

Mr. Scott Davidson
Engineering Supervisor
GKN Aerospace Monitor, Inc.

Dr. Bertram Dittmar
President/CEO
Schenck Trebel Corporation

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Capital Program Engineer
NYCDEP Bureau of Engineering

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Mr. Thomas Nagler
President and Co-Owner
Natech Plastics

Mr. Amit Pai
Lead Mechanical Analyst
Motorola Solutions Inc.

Mr. Jeff Richlin
Tool Builder, Sales Support
Richlin/Omniturn

Mr. William Wahl
Vice President of Engineering
Fonar Corporation

Mr. Tom Zanatta
Development Engineer
Symbol Technology

MEDICAL LABORATORY TECHNOLOGY

Ms. Vicki Coby
Clinical Laboratory Consultant

Mr. Peter Colaninno
Laboratory Manager
Sunrise Medical Laboratories

Ms. Donna Manchisi
Clinical Education Coordinator
North Shore/LIJ Health System
Laboratories

Ms. Marianne Sarli
Laboratory Supervisor
So. Nassau Communities Hospital

Mr. Richard Seaberg
Laboratory Administrator
North Shore University Hospital

Ms. Angela Tomei-Robinson
Clinical Coordinator
Winthrop University Hospital

Mr. Michael Zoebelein
Operations Manager
Sunrise Medical Laboratory

NURSING

Ms. Patricia Marie Farrell
Chief Nursing Officer
Southside Hospital NSLIJHS

Ms. Patricia Hogan
Director, Program Evaluation
Krasnoff Quality Management Institute
North Shore/LIJ
Health System Appraiser
ANCC Magnet Program

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Maternal-Child Care
Winthrop University Hospital

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Nurse Manager
St Joseph Hospital

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Ms. Agnes Quinn
Supervisor
VEEB

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NYS Assemblyman
12th Assembly District

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North Shore University Hospital

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Ms. Karen Tronolone
Nurse Manager
Good Samaritan Hospital

Dr. Lee Anne Xippolitos
Dean, School of Nursing
Stony Brook University

Ms. Patti Ann Yudelson
Clincial Care Coordinator
Long Island State Veterans Home

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Flocabulary

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Assistant to the Mayor
Incorporated Village of Lindenhurst

Mr. Kevin J. McCaffrey
Minority Leader
Suffolk County Legislator

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Academic Programs and Services
Founding Director of the Stony Brook
Institute for Global Studies
Professor of History at
Stony Brook University

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Director of International &
Non-J.D. Programs
Fordam University School of Law

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Culhane Associates, LLC

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Suffolk Community College

Mr. Joseph Reek
Vice President of Operations
Zimco Optics, Inc.

Mr. Eric P. Vandenburg
Director of Training & Research
Culhane Assoiciates, LLC.

Mr. Allan Weissmann
Investigative Support Analyst
West River Group

URBAN HORTICULTURE AND DESIGN

Ms. Linda Calamia
Staff Horticulturist
Decker's Nursery, Florist &
Tree Preservation

Mr. Stephen D'Amato
Owner
D'Amato Landscaping, Inc.

Mr. Thomas DiDominica
Co-Owner
Dees' Nursery & Florist

Ms. Patrice Dimino
Landscape Designer
Hofstra University

Ms. Michelle Doran
Horticulturist
Cold Spring Harbor Laboratory

Ms. Bonnie Klein
Extension Community Educator
CCE Horticulture Program

Mr. John Meyer
Manager & Buyer
Atlantic Nursery & Garden Shop

Mr. Anthony Pignataro
Commercial Sales
Hicks Nursery

Mr. Dan Raccomandato
Project Manager
Town of Babylon

Mr. Steven Rodler
Vice President
Goldberg and Rodler/Tree Care

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President
Starkie Brothers Garden Center, Inc.

Ms. Jennifer Ulsheimer
    Horticulturist
    Town of Babylon

Ms. Adriann Valiquette
    Dragonfly Landscape Design, Ltd.

Mr. Andrew Vaughan
    Assistant Buyer
    Atlantic Nursery

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    Wallace Church, Inc.

Mr. Paul Cammarata
    Sr. Vice President of Production
    Curran and Connors

Mr. Rick Chiorando
    Chief Creative Officer
    Austin & Williams

Mr. Brandon Gerena
    Site Optimization Strategist
    Razorfish

Mr. Steve Greco
    Vice President, Creative Services
    Don Jagoda Associates

Mr. Dave Loewy
    Principal
    Loewy Design

Mr. Patrick Macri
    President
    Chief Executive Officer
    Millennium Communications Inc.

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    Winthrop University Hospital

Ms. Enes Carnesecca
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    Director, Social Science Institute
    Farmingdale State College

Ms. Kathleen Devine
    EAP Coordinator
    Farmingdale State College

Ms. Malka Edelman
    Director
    Disability Services Center
    Farmingdale State College

Mr. Ken Knutsen
    Administrator, Huntington Hills
    Center for Health & Rehabilitation

Mr. Martin Murphy
    Director
    LIRAEN

Ms. Janice Rivera
    Executive Director
    Academic Support and Access
    Programs
    EOP, STEP/CSTEP, LPP
    Farmingdale State College

Prof. Mort Seitelman
    Physics Department
    Farmingdale State College

STATE UNIVERSITY OF NEW YORK

CAMPUSES OF THE STATE UNIVERSITY OF NEW YORK

UNIVERSITY CENTERS

State University of New York at Albany
State University of New York at Binghamton
State University of New York at Buffalo
State University of New York at Stony Brook

UNIVERSITY COLLEGES

State University College at Brockport
State University College at Buffalo
State University College at Cortland
State University of New York /Empire State College
State University College at Fredonia
State University College at Geneseo
State University College at New Paltz
State University College at Old Westbury
State University College at Oneonta
State University College at Oswego
State University College at Plattsburgh
State University College at Potsdam
State University College at Purchase

THE HEALTH SCIENCES CENTERS

State University of New York Health Science Center at Brooklyn
State University of New York Health Science Center at Syracuse
(Health Sciences Center at SUNY at Buffalo)*
(Health Sciences Center at SUNY at Stony Brook)*

UNIVERSITY COLLEGES OF TECHNOLOGY

State University of New York College of Technology at Alfred
State University of New York College of Technology at Canton
State University of New York College of Agriculture and Technology
 at Cobleskill
State University of New York College of Technology at Delhi
State University of New York College of Technology at Farmingdale
State University of New York College of Agriculture and Technology
 at Morrisville

SPECIALIZED COLLEGES

State University of New York College of Environmental Science and
Forestry at Syracuse
State University of New York Maritime, College at Fort Schuyler
State University of New York College of Optometry at New York City
State University of New York Institute of Technology at Utica/Rome**

STATUTORY COLLEGES****

New York State College of Agriculture
and Life Sciences at Cornell University
New York State College of Ceramics at Alfred University
New York State College of Human Ecology at Cornell University
New York State School of Industrial and Labor Relations
 at Cornell University
New York State College of Veterinary Medicine at Cornell University

COMMUNITY COLLEGES

(Locally-sponsored, two-year colleges under the program of the State University)
Adirondack Community College at Glens Falls
Broome Community College at Binghamton
Cayuga County Community College at Auburn
Clinton Community College at Plattsburgh
Columbia-Greene Community College at Hudson
Corning Community College at Corning
Duchess Community College at Poughkeepsie
Erie Community College at Williamsville, Buffalo and Orchard Park
Fashion Institute of Technology at New York City***
Finger Lakes Community College
Fulton-Montgomery Community College at Johnstown
Genesee Community College at Batavia
Herkimer County Community College at Herkimer
Hudson Valley Community College at Troy
Jamestown Community College at Jamestown
Jefferson Community College at Watertown
Mohawk Valley Community College at Utica
Monroe Community College at Rochester
Nassau Community College at Garden City
Niagara County Community College at Sanborn
North Country Community College at Saranac Lake
Onondaga Community College at Syracuse
Orange County Community College at Middletown
Rockland Community College at Suffern
Schenectady County Community College at Schenectady
Suffolk County Community College at Selden, Riverhead and Brentwood
Sullivan County Community College at Loch Sheldrake
Tompkins Cortland Community College at Dryden
Ulster County Community College at Stone Ridge
Weschester Community College at Valhalla

* The Health Sciences Centers at Buffalo and Stony Brook are operated
   under the administration of their respective University Centers.

**This is an upper-division institution authorized to offer
   baccalaureate and master's degree programs.

*** While authorized to offer such baccalaureate and master's
    degree programs as may be approved pursuant to the provisions
    of the Master Plan, in addition to the associate degree, the
    Fashion Institute of Technology is financed and administered in
    the manner provided for community colleges.

**** These operate as 'contract colleges' on the campuses of
    independent universities.

Farmingdale State College

State University of New York

2350 Broadhollow Road, Farmingdale, NY 11735-1021

Map of the Campus

Locate buildings by name (ie: Laffin Hall) *number* (02), *or map grid coordinates* (D-5).

Building	Grid
Admissions (Laffin Hall) (02)	D-5
Alumni Hall (65)	E-5
Aviation Center *(Please see note.)	
Bus Stop, Main	G-2
Business School (116)	E-5
Campus Center (08)	F-3
Campus Commons (06)	F-3
Children's Center (33)	G-6
Conklin Hall (12)	E-3
Cutler Hall (03)	F-4
Dewey Hall (91)	E-6
Gleeson Hall (07)	E-3
Greenhouse (04)	F-4
Greenley Library (18)	D-4
Hale Hall (14)	D-3
Health & Wellness Center (89)	E-6
Heating Plant (71)	E-2
Hicks Hall (05)	F-4
Hooper Hall (15)	E-5
Horton Hall (54)	F-3
Knapp Hall (40)	D-4
Laffin Hall (02)	D-5
Lehman Hall (92)	F-6
LIRR Shuttle	D-5
Lupton Hall (63)	C-4
Memorial Hall (66)	D-5
Nold Athletic Complex (85)	B-5
Orchard Hall (115)	F-7
Roosevelt Hall (42)	C-4
Service Building (70)	E-2
Sinclair Hall (94)	F-5
Smart Energy House	D-6
Student Services (Laffin Hall) (02)	D-5
The Cottage (01)	F-5
Thompson Hall (41)	F-4
University Police (46)	G-3
Ward Hall (11)	E-4
Whitman Hall (50)	E-4

Admissions	631-420-2200
Campus Operator	631-420-2000
University Police	631-420-2111

Directions to the campus via Automobile —

- Northern State Parkway: Exit 40S – Route 110. Travel south approximately 3 miles.
- Long Island Expressway (495): Exit 49 South – Route 110. Travel south approximately 2 miles.
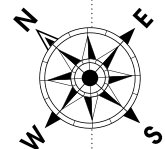- Southern State Parkway: Exit 32N – Route 110. Travel north approximately 3 miles.

All vehicles parked on campus must have a valid parking permit. Please go to University Police to obtain a permit.
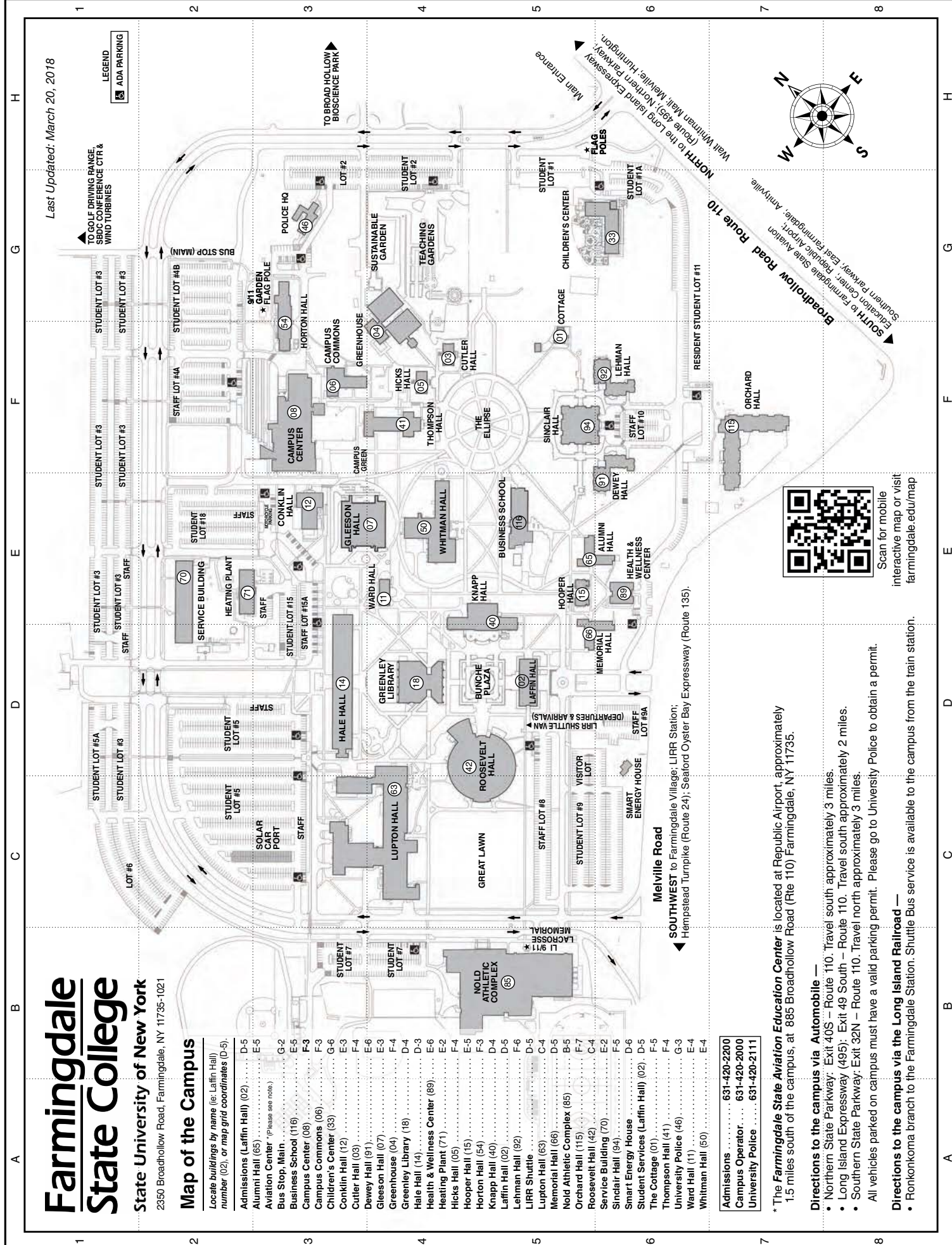
Directions to the campus via the Long Island Railroad —

- Ronkonkoma branch to the Farmingdale Station. Shuttle Bus service is available to the campus from the train station.

*The **Farmingdale State Aviation Education Center** is located at Republic Airport, approximately 1.5 miles south of the campus, at 885 Broadhollow Road (Rte 110) Farmingdale, NY 11735.

▼ **SOUTHWEST** to Farmingdale Village; LIRR Station; Hempstead Turnpike (Route 24); Seaford Oyster Bay Expressway (Route 135).

Last Updated: March 20, 2018

LEGEND
♿ ADA PARKING

Scan for mobile interactive map or visit farmingdale.edu/map

NORTH to Farmingdale State Aviation Education Center: Republic Airport; East Farmingdale.

SOUTH to Farmingdale Station; Southern Parkway; Amityville.

Broadhollow Road / Route 110

Melville Road

Wall Whitman Mall; Melville; Huntington.

NORTH to the Long Island Expressway (Route 495); Northern Parkway.

Main Entrance

★ FLAG POLES

TO BROAD HOLLOW BIOSCIENCE PARK

TO GOLF DRIVING RANGE, SBDC CONFERENCE CTR & WIND TURBINES

TELEPHONE NUMBERS

TOPIC	RESOURCE/LOCATION	TELEPHONE
Academic Advisement and Information Center	Lower Level, Greenley Library	631-794-6160
Academic Requirements	Please See Your Curriculum Chair	
Admission Requirements	Admissions Office, Laffin Hall	631-420-2200/2671
Activities/Events	Office of Student Activities, Conklin Hall	631-420-2103
Athletics	Nold Hall Gymnasium	631-420-2482
Billing Information	Student Accounts Office, Laffin Hall	631-420-2560
Books / Supplies	Bookstore, Campus Center	631-249-3048
Campus Information	Information Center, Laffin Hall	631-420-2000
Career Counseling / Applied Learning / Internships	Nexus Center, Greenley Hall	631-420-2296
Child Care	Children's Center	631-420-2125
Disability Services Center	Office for Students With Disabilities, Laffin Hall	631-420-2411/2296
Financial Aid	Financial Aid Office, Laffin Hall	631-420-2578
Health and Wellness	Health and Wellness Center	631-420-2009/2014
Information Technology	Help Desk, Whitman Hall	631-420-2754
Library	Greenley Hall	631-420-2011
Lost & Found	University Police Headquarters	631-420-2111
Personal Counseling	Sinclair Hall	631-420-2006
Placement Testing	Placement Testing Office, Laffin Hall	631-420-2629
Registrar	Registrar's Office, Laffin Hall	631-420-2776
Scholarships	Alumni Scholarships; Alumni Association, Ward Hall	631-420-2369/2288
	Campus Scholarships, Ward Hall	631-420-2144
	Dante Scholarships, Student Services / Activities, Roosevelt Hall	631-420-2104
	Farmingdale Foundation, Horton Hall	631-420-2568
	Off Campus Scholarships, Financial Aid, Laffin Hall	631-420-2578
Small Business Development Center	Campus Commons	934-420-2765
Student Health Services	Health and Wellness Center	631-420-2009/2014
Student ID Cards	University Police Headquarters	631-420-2111
Telephone Operator	Main Switchboard, Laffin Hall	631-420-2000
Tutoring Center	Greenley Hall	631-420-2066/2475
Math Learning Center	Mathematics Learning Center, Whitman Hall	631-420-2217
Writing Center	Greenley Hall	631-420-2082
Vehicle Registration for Staff	University Police Headquarters	631-420-2111
Vehicle Registration for Students	Business Office, Laffin Hall	631-420-2561
Veterans Services Office	Roosevelt Hall	631-794-6168