

SCHOOL OF BUSINESS AND TECHNOLOGY DEPARTMENT OF ENGINEERING TECHNOLOGY

FACULTY

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DEPARTMENTAL GOALS

The Department of Engineering Technology provides students the opportunity to prepare for professional opportunities in industry and education.

Particular areas of preparation attempt to address:

1. The delivery of broad-based technical programs that allow the graduate to accommodate new and advancing technologies.
2. The preparation of an adequate work force to meet area state and regional demands for technology in industry and education.
3. The maintenance of quality curriculum content, faculty, equipment and facilities to meet the standards set by appropriate state and national accrediting agencies.

PROGRAMS OF STUDY

Majors: B.S. Engineering Technology

- Computer Electronics Engineer. Tech. Option
- Environmental Engineering Tech. Option
- Manufacturing Engineering Tech. Option

B.S. Industrial Technology

- Electronics Technology Option
- Manufacturing Technology Option

Minors: Computer Technology
Electronics
General Technology

GENERAL INFORMATION

Technology curricula allows for a variety of exciting opportunities in the areas of Engineering Technology. Manufacturing Engineering Technology is currently accredited by the Engineering Technology Accreditation Commission (ETAC) of the Accreditation Board for Engineering and Technology (ABET), 415 North Charles Street, Baltimore, MD 21201 – Telephone: (410) 347-7700. Industrial Technology is currently accredited by the Association of Technology, Management, and Applied Engineering (ATMAE), 275 N. York Street, Suite 401, Elmhurst, IL 60126 – Telephone: (630) 443-4514. Each major is capped by a research project or realistic internship experience to facilitate the transition from school to the actual job scene.

Career opportunities are numerous in all technology fields and command competitive salaries. Examples of recent graduate placements are manufacturing engineering technologists, quality assurance managers, plant and production supervisors, production analysts, planners and schedulers, and estimators.

Within the Department of Engineering Technology there are several student organizations which promote professional development and social activities. These include student chapters of the Society of Manufacturing Engineers (SME), the Society of Women Engineers (SWE) and the Association of Technology, Management, and Applied Engineering (ATMAE). The clubs meet on a regular basis and organize activities such as industrial plant tours, robotics competitions, homecoming float construction, and educational conferences.

For more information visit our web site at:
<http://www.swosu.edu/tech/>

BACHELOR OF SCIENCE IN ENGINEERING TECHNOLOGY (Code No. 131)

GENERAL EDUCATION

Courses that are **required** are in bold type.
Courses that are *recommended* are in italics.

TOTAL GENERAL EDUCATION HOURS **Min. 40**
REQUIRED CORE COURSES..... **31-35**

Written Communication..... **6**

ENGL 1113 English Composition I
ENGL 1213 English Composition II

Mathematics..... **3**

MATH 1513 College Algebra
or a higher numbered math course

U. S. History **3**

Select one course.

HIST 1043 U.S. History to 1877
HIST 1053 U.S. History since 1877

American Government..... **3**

POLSC 1103 American Government & Politics

Science..... **7-8**

Select one course from Life Science and one course from Physical Science. One Science course must be a lab science.

Life Science..... **4**

BIOL 1004 Biological Concepts w/Lab

Physical Science..... **4**

CHEM 1004 General Chemistry w/Lab

Humanities..... **6**

HUM 1103 Introduction to Humanities

OR

HIST 1033 World History

AND one of the following:

ART 1223 Art Survey
COMM 1263 Introduction to Theatre
LIT 2333 Introduction to Film
LIT 2413 Introduction to Literature
MUSIC 1013 Introduction to Music I
MUSIC 1103 Music and Culture
PHILO 1453 Introduction to Philosophy

Human, Cultural, & Social Diversity **3**

TECH 1223 Technology and Society

Computer Proficiency..... **0-3**

Students must demonstrate computer proficiency (high school Computer Science course, SWOSU computer proficiency exam, or COMSC 1023 Computer & Info Access).

GE electives (from at least two different categories) to total 40

ENGINEERING TECHNOLOGY MAJOR/MINOR

The Engineering Technology major/minor includes 56 hours of core requirements, a selected technical specialty, and electives approved by the department to total a minimum of 128 hours. The Manufacturing Engineering Technology option is accredited by the Engineering Technology Accreditation Commission (ETAC) of the Accreditation Board for Engineering and Technology (ABET), 415 North Charles Street, Baltimore, MD 21201 - Telephone: (410) 347-7700.

Core Requirements..... **56**

COMSC 1433 Visual Basic Programming
MATH 1613 College Trigonometry
MATH 2823 Applied Calculus
MATH 3413 Statistical Methods
OR ECONO 2463 Business Statistics
MFET 4020 Prof Certification Requirements
PHY 1044 Basic Physics I w/Lab
TECH 1101 Introduction to Technology
TECH 1203 Engineering Drafting
TECH 1713 Basic Electrical Science
TECH 2413 Non-Metallic Materials & Processes
TECH 2513 Fabrication Processes I
TECH 3113 Industrial Safety
TECH 3143 Technical Presentations
TECH 3263 Machine Drafting I
TECH 3463 Manufacturing Operations I
TECH 3613 Power Systems
TECH 4243 3D CAD - SolidWorks
TECH 4373 Economic Decision Analysis
TECH 4433 Quality Control
TECH 4493 Manufacturing Operations II

Majors must select one specialization from the following technical areas:

Computer Electronics Engineering Technology Option..... **33**

Electronics Requirements **21**

TECH 2713 Fundamental Electronics
TECH 2813 Digital Devices
TECH 3833 Communications Electronics
TECH 3843 Telecommunications
TECH 4223 Electronics Capstone
TECH 4813 Networks & Distributed Controls
TECH 4843 Industrial Controls

Electronics Electives **3**

TECH 3823 Industrial Electronics
TECH 4833 Microprocessors and Embedded Controls

Computer Science Required..... **6**

COMSC 1033 Computer Science I
COMSC 1053 Computer Science II

Computer Science Electives..... **3**

Computer Science Electives (by advisement)

Environmental Engineering Technology Option

Environmental Requirements..... **33**

BIOL 4355 Microbiology
CHEM 1203 General Chemistry I
CHEM 1252 General Chemistry I Lab
CHEM 1303 General Chemistry II
CHEM 1352 General Chemistry II Lab
CHEM 2114 Organic/Biochemistry
CHEM 4254 Industrial Chem & Environ Reg
GEOL 1934 Physical Geology
TECH 3173 Environmental Regulations
TECH 3413 Production Processes

Manufacturing Engineering Technology Option

Manufacturing Requirements..... 32		
MFET	3183	Statics & Strengths
MFET	3433	Automation/Robotics
MFET	4443	Material Handling/Facility Planning
MFET	4753	Senior Capstone
TECH	2713	Fundamental Electronics
TECH	3413	Production Processes
TECH	3513	Materials Testing & Analysis
TECH	3523	Fabrication Processes II
TECH	4454	Computer Aided Manuf (CAM)
TECH	4514	Machine Tool Processes

TOTAL HOURS..... 128-129

Engineering Technology is the specialty of applied engineering that emphasizes the production methods of industry. Specific curricular areas include:

1. Engineering Science
2. Computer Applications/Automation
3. Operations Management
4. Manufacturing Processes
5. Product Design
6. Environmental Health and Safety

Program Educational Objectives

Several years after graduation, Engineering Technology, Manufacturing Engineering Technology Option graduates will:

1. Be employed in a field related to their discipline where they are able to utilize their technical knowledge and skills.
2. Be able to communicate effectively in multiple ways and formats, such as oral, written and graphical.
3. Possess the ability to solve basic problems and formulate strategies using critical thinking to improve technical and management processes.
4. Be a contributing member of the team with the skills necessary to move into leadership roles.
5. Continue to grow as an employee by remaining current in their field and aware of new technologies through job experience, continuous learning, and/or professional organizations.

REGULATIONS PERTAINING TO GRADUATION

Minimum credit hours for graduation.....	128
Minimum credit hours in the liberal arts & sciences.....	55
Minimum credit hours in upper-division (3000/4000 courses).....	40
Minimum credit hours (3000/4000 courses) in major completed at SWOSU	8
Minimum credit hours at SWOSU (15 of the last 30).....	30
Minimum Grade Point Average in all coursework.....	2.00
Minimum Grade Point Average in major	2.00

Engineering Technology (Code 131)
Computer Electronics Engineering Technology Option
Suggested Course Sequence#

FIRST YEAR

FIRST SEMESTER	SECOND SEMESTER
1001 Freshman Orientation* (1) 1101 Intro to Technology (1) 1113 English Comp I (3) 1203 Engineering Drafting (3) 1223 Technology & Society (3) 1513 College Algebra (3) 1713 Basic Elec Science (3)	1023 Comp/Info Access (3) 1213 English Comp II (3) 1433 Visual Basic Program (3) 1613 College Trig (3) 2713 Fundamental Elec (3) 3263 Machine Drafting (3)
Total (17)	Total (18)

SECOND YEAR

FIRST SEMESTER	SECOND SEMESTER
1004 Biological Concepts (4) 1033 Computer Science I (3) 2823 Applied Calculus (3) 3833 Communication Elec (3) Gen Ed Humanities Course (3) English Proficiency Exam **	1004 General Chemistry (4) 1053 Computer Science II (3) 2413 Non-Metal Materials & Proc (3) 2513 Fabrication Proc I (3) 3843 Telecommunications (3)
Total (16)	Total (16)

THIRD YEAR

FIRST SEMESTER	SECOND SEMESTER
1044 Basic Physics I (4) 2813 Digital Devices (3) 3463 Manufacturing Ops I (3) 4843 Industrial Controls (3) Electronics Elective (3)	1043 <i>OR</i> 1053 US History (3) 3143 Technical Presentations (3) 3613 Power Systems (3) 4493 Manufacturing Ops II (3) Gen Ed Humanities Course (3) GE Elective (3)
Total (16)	Total (18)

FOURTH YEAR

FIRST SEMESTER	SECOND SEMESTER
1103 American Gov't (3) 2463 Business Stats <i>OR</i> 3413 Stat Methods (3) 4433 Quality Control (3) 4813 Networks & Dist Controls (3) COMSC Elective (3)	3113 Industrial Safety (3) 4020 Prof. Cert. Req. (0) 4223 Electronics Capstone (3) 4243 3D CAD – Solidworks (3) 4373 Econ Decision Analy (3) GE Elective (3)
Total (15)	Total (15)

Overall Total = 131 (due to flux in GE electives)

* First time entering Freshmen need to take 1001 Freshman Orientation

** If applicable. See English Proficiency Program under the General Academic Information Section

Engineering Technology (Code 131)
Environmental Engineering Technology Option
Suggested Course Sequence#

FIRST YEAR

FIRST SEMESTER	SECOND SEMESTER
1001 Freshman Orientation* (1) 1023 Comp/Info Access (3) 1101 Intro to Technology (1) 1113 English Comp I (3) 1203 Engineering Drafting (3) 1223 Technology & Society (3) 1513 College Algebra (3)	1004 Biological Concepts (4) 1004 General Chemistry (4) 1103 American Gov't (3) 1213 English Comp II (3) 1613 College Trig (3)
Total (17)	Total (17)

SECOND YEAR

FIRST SEMESTER	SECOND SEMESTER
1043 <i>OR</i> 1053 US History (3) 1044 Basic Physics I (4) 2413 Non-Metal Materials & Proc (3) 2823 Applied Calculus (3) 3263 Machine Drafting (3) English Proficiency Exam **	1203 General Chem I (3) 1252 General Chem I Lab (2) 1713 Basic Elec Science (3) 2513 Fabrication Proc I (3) 3173 Environmental Regs (3) Gen Ed Humanities Course (3)
Total (16)	Total (17)

THIRD YEAR

FIRST SEMESTER	SECOND SEMESTER
1303 General Chem II (3) 1352 General Chem II Lab (2) 1433 Visual Basic Prog (3) 2463 Business Stats <i>OR</i> 3413 Stat Methods (3) 3463 Manufacturing Ops I (3) 4243 3D CAD - Solidworks (3)	1934 Physical Geology (4) 2114 Organic/Biochem (4) 3413 Production Processes (3) 4493 Manufacturing Ops II (3) GE Elective (3)
Total (17)	Total (17)

FOURTH YEAR

FIRST SEMESTER	SECOND SEMESTER
3113 Industrial Safety (3) 3143 Technical Presentations (3) 4433 Quality Control (3) 3613 Power Systems (3) Gen Ed Humanities Course (3)	4020 Pro Cert Req (0) 4254 Ind Chem & Env Regs (4) 4355 Microbiology (5) 4373 Econ Decision Analy (3) GE Elective (3)
Total (15)	Total (15)

Overall Total = 131 (due to flux in GE electives)

* First time entering Freshmen need to take 1001 Freshman Orientation

** If applicable. See English Proficiency Program under the General Academic Information Section

**Engineering Technology (131)
Manufacturing Engineering Technology Option
Suggested Course Sequence#**

FIRST YEAR

FIRST SEMESTER	SECOND SEMESTER
1001 Freshman Orientation* (1) 1101 Intro to Technology (1) 1113 English Comp I (3) 1203 Engineering Drafting (3) 1223 Technology & Society (3) 1513 College Algebra (3)	1023 Comp/Info Access (3) 1004 Biological Concepts (4) 1103 American Gov't (3) 1213 English Comp II (3) 1613 College Trig (3)
Total (14)	Total (16)

SECOND YEAR

FIRST SEMESTER	SECOND SEMESTER
1004 General Chemistry (4) 1713 Basic Elec Science (3) 2513 Fabrication Proc I (3) 2823 Applied Calculus (3) 3263 Machine Drafting (3) English Proficiency Exam**	1043 <i>OR</i> 1053 US History (3) 1433 Visual Basic Prog (3) 2413 Non-Metal Materials & Proc (3) 2713 Fundamental Elec (3) 3523 Fabrication Proc II (3) Gen Ed Humanities Course (3)
Total (16)	Total (18)

THIRD YEAR

FIRST SEMESTER	SECOND SEMESTER
1044 Basic Physics I (4) 2463 Business Stats <i>OR</i> 3413 Stat Methods (3) 3463 Manufacturing Ops I (3) 3513 Materials Test/Analy (3) GE Elective (3)	3113 Industrial Safety (3) 3413 Production Processes (3) 4243 3D CAD – Solidworks (3) 4493 Manufacturing Ops II (3) GE Elective (3) Gen Ed Humanities Course (3)
Total (16)	Total (18)

FOURTH YEAR

FIRST SEMESTER	SECOND SEMESTER
3183 Statics & Strengths (3) 3433 Automation/Robotics (3) 4433 Quality Control (3) 4514 Machine Tool Proc (4) 4753 Senior Capstone (3)	3143 Technical Presentations (3) 3613 Power Systems (3) 4020 Prof Cert Req (0) 4373 Econ Decision Analy (3) 4443 Material Hand/Facility Plan (3) 4454 Comp Aided Manuf (CAM) (4)
Total (16)	Total (16)

Overall Total = 131 (due to flux in GE electives)

* First time entering Freshmen need to take 1001 Freshman Orientation

** If applicable. See English Proficiency Program under the General Academic Information Section

BACHELOR OF SCIENCE INDUSTRIAL TECHNOLOGY (Code No. 135)

GENERAL EDUCATION

Courses that are **required** are in bold type.
Courses that are *recommended* are in italics.

TOTAL GENERAL EDUCATION HOURS **Min. 40**
REQUIRED CORE COURSES..... **31-35**

Written Communication..... **6**
ENGL 1113 **English Composition I**
ENGL 1213 **English Composition II**

Mathematics..... **3**
MATH 1513 **College Algebra**
or a higher numbered math course

U. S. History **3**
Select one course.
HIST 1043 U.S. History to 1877
HIST 1053 U.S. History since 1877

American Government..... **3**
POLSC 1103 **American Government & Politics**

Science..... **8**
Select one course from Life Science and one course from Physical Science. One Science course must be a lab science.

Life Science..... **4**

BIOL 1004 **Biological Concepts w/Lab**

Physical Science..... **4**

SCI 1513 **Conc of Phy Science**
SCI 1501 **Concepts of Phy Science Lab**

Humanities..... **6**
HUM 1103 Introduction to Humanities
OR
HIST 1033 World History
AND one of the following:
ART 1223 Art Survey
COMM 1263 Introduction to Theatre
LIT 2333 Introduction to Film
LIT 2413 Introduction to Literature
MUSIC 1013 Introduction to Music I
MUSIC 1103 Music and Culture
PHILO 1453 Introduction to Philosophy

Human, Cultural, & Social Diversity **3**
TECH 1223 **Technology and Society**

Computer Proficiency..... **0-3**
Students must demonstrate computer proficiency (high school Computer Science course, SWOSU computer proficiency exam, or COMSC 1023 Computer & Info Access).

GE electives (from at least two different categories) to total 40

INDUSTRIAL TECHNOLOGY MAJOR/MINOR

The Industrial Technology major/minor includes a **44-hour** core requirement, 12 hours of management, 24 hours from a selected technology, and a balance of 3000/4000 electives approved by the department to total 120 hours. Industrial Technology is currently accredited by the Association of Technology, Management, and Applied Engineering (ATMAE), 275 N. York Street, Suite 401, Elmhurst, IL 60126 – Telephone: (630) 433-4514.

Core Requirements..... **44**

CHEM 1004 General Chemistry
MATH 3413 Statistical Methods
OR ECONO 2463 Business Statistics
ECONO 2363 Introduction to Microeconomics
MFET 4020 Professional Certification Requirements
TECH 1101 Introduction to Technology
TECH 1203 Engineering Drafting
TECH 2413 Non-Metallic Materials & Processes
TECH 1713 Basic Electrical Science
TECH 2513 Fabrication Processes I
TECH 3113 Industrial Safety
TECH 3143 Technical Presentations
TECH 3463 Manufacturing Operations I
TECH 3613 Power Systems
TECH 4123 Industrial Supervision
TECH 4243 3D CAD – Solidworks
TECH 4433 Quality Control

Management electives (by advisement)..... **12**

ACCTG 2213 Principles of Financial Accounting
ACCTG 2313 Principles of Managerial Accounting
COMSC 1433 Visual Basic Programming
ECONO 2263 Introduction to Macroeconomics
ENTRP 3123 Legal Environment of Business
MATH 3433 Statistics I
MNGMT 3233 Management
MNGMT 3333 Human Resource Management
MRKTG 3143 Principles of Marketing
TECH 3173 Environmental Regulations
TECH 4443 Material Handling and Facility Planning
TECH 4493 Manufacturing Operations II
TECH 4900 Orientation to Industrial Internship
TECH 4916 Industrial Internship

Majors must select either the Electronics Technology Option or the Manufacturing Technology Option:

Electronics Technology Option..... **24**

Required Courses..... **18**

TECH 2713 Fundamental Electronics
TECH 2813 Digital Devices
TECH 3833 Communications Electronics
TECH 3843 Telecommunication
TECH 4223 Electronics Capstone
TECH 4843 Industrial Controls

Approved Electives **6**

(CONTINUED ON NEXT PAGE)

Manufacturing Technology Option 24
Required Courses.....20
 TECH 3263 Machine Drafting I
 TECH 3413 Production Processes
 TECH 3513 Materials Testing & Analysis
 TECH 3523 Fabrication Processes II
 TECH 4454 Computer Aided Manuf (CAM)
 TECH 4514 Machine Tool Processes
Approved Electives..... 4
Electives (by advisement) to total 120

2000-12 Extra institutional Learning Credit may be awarded for current professional licenses and certificates that have been evaluated and approved for credit by the Technology Department. Educational credit recommended by the American Council on Education (ACE), ACE/PONSI, and/or completion of a special skills examination may also be evaluated for credit. (1-12 credits lower division maximum 12)

4000-12 Extra institutional Learning credit may be awarded for current professional licenses and certificates that have been evaluated and approved for credit by the Technology Department. Educational credit recommended by the American Council on Education (ACE), ACE/PONSI, and/or completion of a special skills examination may also be evaluated for credit. (1-12 credits upper division maximum 12)

Industrial Technology articulates industrial management with a specialization in electronics technology; and manufacturing technology. Technical concepts and experiences are supported with courses in applied mathematics, science, and management. A supervised industrial internship completes the program. Specific curricular emphases include:

1. The analysis of industrial materials.
2. The identification of production processes.
3. An examination of the concepts of industrial management and human relations.
4. The solving of technical problems found in industry.
5. The development of skills relating to a specific area of specialization.

The mission of the Industrial Technology Program is to provide students the education and experience necessary to successfully perform the functions of an industrial manager.

REGULATIONS PERTAINING TO GRADUATION

Minimum credit hours for graduation.....	120
Minimum credit hours in the liberal arts & sciences.....	55
Minimum credit hours in upper-division (3000/4000 courses).....	40
Minimum credit hours (3000/4000 courses) in major completed at SWOSU	8
Minimum credit hours at SWOSU (15 of the last 30).....	30
Minimum Grade Point Average in all coursework.....	2.00
Minimum Grade Point Average in major	2.00

**Industrial Technology (Code 135)
Electronics Technology Option
Suggested Course Sequence#**

FIRST YEAR

FIRST SEMESTER	SECOND SEMESTER
1001 Freshman Orientation* (1) 1101 Intro to Technology (1) 1113 English Comp I (3) 1203 Engineering Drafting (3) 1223 Technology & Society (3) 1513 College Algebra (3) 1713 Basic Elec Science (3)	1023 Comp/Info Access (3) 1103 American Gov't (3) 1213 English Comp II (3) 2463 Business Stats <i>OR</i> 3413 Stat Methods (3) 2713 Fund Electronics (3)
Total (17)	Total (15)

SECOND YEAR

FIRST SEMESTER	SECOND SEMESTER
1514 Concepts of Phy Science (4) 2413 Non-Metal Materials & Proc (3) 3833 Communication Electronics (3) Gen Ed Humanities Course (3) GE Elective (3) English Proficiency Exam**	1004 Biological Concepts (4) 1043 <i>OR</i> 1053 US History (3) 2363 Intro to Microeconomics (3) 3843 Telecommunications (3) 2513 Fabrication Proc I (3)
Total (16)	Total (16)

THIRD YEAR

FIRST SEMESTER	SECOND SEMESTER
1004 General Chemistry (4) 2813 Digital Devices (3) 3613 Power Systems (3) 4243 3D CAD - Solidworks (3) 4843 Industrial Controls (3)	3113 Industrial Safety (3) 3143 Technical Presentations (3) Gen Ed Humanities Course (3) GE Elective (3) Management Elective (3)
Total (16)	Total (15)

FOURTH YEAR

FIRST SEMESTER	SECOND SEMESTER
3463 Manufacturing Ops I (3) 4433 Quality Control (3) Management Elective (3) Electronics Electives (6)	4020 Prof Cert Req (0) 4123 Industrial Supervision (3) 4223 Electronics Capstone (3) Management Electives (6)
Total (15)	Total (12)

Overall Total = 122 (due to flux in GE electives)

* First time entering Freshmen need to take 1001 Freshman Orientation

** If applicable. See English Proficiency Program under the General Academic Information Section

**Industrial Technology (Code 135)
Manufacturing Technology Option
Suggested Course Sequence#**

FIRST YEAR

FIRST SEMESTER	SECOND SEMESTER
1001 Freshman Orientation* (1) 1101 Intro to Technology (1) 1113 English Comp I (3) 1203 Engineering Drafting (3) 1223 Technology & Society (3) 1513 College Algebra (3)	1004 Biological Concepts (4) 1023 Comp/Info Access (3) 1103 American Gov't (3) 1213 English Comp II (3) 2463 Business Stats <i>OR</i> 3413 Stat Methods (3)
Total (14)	Total (16)

SECOND YEAR

FIRST SEMESTER	SECOND SEMESTER
1514 Concepts of Phy Science (4) 1713 Basic Elec Science (3) 2413 Non-Metal Materials & Proc (3) 2513 Fabrication Proc I (3) Gen Ed Humanities Course (3) English Proficiency Exam**	1004 General Chemistry (4) 2363 Intro to Microeconomics (3) 3263 Machine Drafting (3) 3523 Fabrication Proc II (3) GE Elective (3)
Total (16)	Total (16)

THIRD YEAR

FIRST SEMESTER	SECOND SEMESTER
1043 <i>OR</i> 1053 US History (3) 3113 Industrial Safety (3) 3463 Manufacturing Ops I (3) 3513 Material Test/Analy (3) Management Elective (3)	3143 Technical Presentations (3) 3413 Production Processes (3) 3613 Power Systems (3) 4243 3D CAD – Solidworks (3) Gen Ed Humanities Course (3)
Total (15)	Total (15)

FOURTH YEAR

FIRST SEMESTER	SECOND SEMESTER
4433 Quality Control (3) 4514 Machine Tool Proc (4) GE Elective (3) Management Elective (3) Manufacturing Electives (4)	4020 Prof Cert Req (0) 4123 Industrial Supervision (3) 4454 Comp Aided Manuf (CAM) (4) Management Electives (6)
Total (17)	Total (13)

Overall Total = 122 (due to flux in GE electives)

* First time entering Freshmen need to take 1001 Freshman Orientation

** If applicable. See English Proficiency Program under the General Academic Information Section