

BACHELOR OF SCIENCE IN ENGINEERING TECHNOLOGY

GENERAL EDUCATION Courses that are **required** are in bold type.

REQUIRED HOURS.....	48-49
Communication	8
ENGL 1113 English Composition I	
ENGL 1213 English Composition II	
COMM 1312 Basic Speech	
Mathematics	3
MATH 1143 Math Concepts	
MATH 1513 College Algebra OR a higher numbered math course	
Computer Applications/Technology.....	2
COMSC 1022 Computers & Information Access	
TECH 1122 Technology & Society	
Economics.....	3
ECONO 1113 Contemporary Economics	
Health & Physical Education.....	3
HPE R 1133 Wellness Concepts & Exercise Applications (includes 1 hr lab)	
Natural Sciences.....	8
BIOL 1004 Biological Concepts	
CHEM 1004 Chemistry	
SCI 1614 Science & the Environment	
ASTRO 1904 Astronomy	
GEOL 1934 Physical Geology	
Fine Arts & Humanities.....	6
ART 1222 Art Survey	
LIT 2412 Introduction to Literature	
MUSIC 1012 Introduction to Music I	
PHILO 1452 Introduction to Philosophy	
U.S. History & Government.....	6
HIST 1063 U.S. History	
POLSC 1103 American Government & Politics	
International & Cultural Studies.....	6-7
HIST 1033 World History	
GEOG 1103 World Cultural Geography	
POLSC 1153 World Relations & Politics	
Foreign Language (4 hr/ includes 3 hr class & 2 hr lab)	
Behavioral/Social Science.....	3
PSYCH 1003 General Psychology	
SOCIO 1003 Introduction to Sociology	

Engineering Technology Major/Minor Code No. 131

The Engineering Technology major/minor includes 53 hours of core requirements, a selected technical specialty, and electives approved by the department to total 135 hours. The Manufacturing Engineering Technology specialization is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET), 111 Market Place, Suite 1050, Baltimore, MD 2102-4012 - Telephone: (410) 347-7700.

Core Requirements.....	53 hours
PHY 1044 Basic Physics I	
TECH 1101 Introduction to Technology	
TECH 1203 Engineering Drafting	
COMSC 1433 Visual Basic Programming	
MATH 1613 College Trigonometry	
TECH 2513 Fabrication Processes I	
MATH 2823 Applied Calculus	
TECH 3113 Industrial Safety	
TECH 3143 Technical Presentations	
TECH 3203 Computer Aided Drafting I (CAD)	
TECH 3263 Machine Drafting I	
MATH 3413 Statistical Methods I	
TECH 3463 Manufacturing Operations I	
TECH 3613 Power Systems	
TECH 3873 Applied Electronics	
MFET 4020 Prof Certification Requirements	
TECH 4373 Economic Decision Analysis	
TECH 4433 Quality Control	
TECH 4493 Manufacturing Operations II	

Majors must select one specialization from the following technical areas.

Manufacturing Engineering Technology

Manufacturing Requirements.....	32
MFET 3183 Statics & Strengths	
TECH 3413 Manufacturing Processes	
MFET 3433 Automation/Robotics	
TECH 3513 Materials Testing & Analysis	
TECH 3523 Fabrication Processes II	
TECH 3813 Electro/Mechanical Controls	
MFET 4443 Material Handling/Facility Planning	
TECH 4454 Computer Aided Manuf (CAM)	
TECH 4514 Machine Tool Processes	
MFET 4951 Capstone I	
MFET 4962 Capstone II	

Computer Engineering Technology

Electronics Requirements.....	15
TECH 3833 Communications Electronics	
TECH 3843 Telecommunications	
TECH 4813 Networking Electronics	
TECH 4823 Digital Electronics	
TECH 4833 Microcomputer Electronics	

Electronics Electives.....	3
TECH 3813 Electro/Mechanical Controls	
TECH 3853 Electronic Instrumentation	
TECH 3863 Electronic Troubleshooting	
TECH 4843 Programmable Controllers	

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Computer Science Required	6
COMSC 1033 Computer Science I	
COMSC 1053 Computer Science II	
Computer Science Electives	9
Computer Science Electives (by advisement) to total 9 hours.	
Environmental Engineering Technology	
Environmental Requirements	34
CHEM 1203 General Chemistry I	
CHEM 1252 General Chemistry I Lab	
CHEM 1303 General Chemistry II	
CHEM 1352 General Chemistry II Lab	
GEOL 1934 Physical Geology	
CHEM 2114 Organic/Biochemistry	
CHEM 2114L Organic/Biochemistry Lab	
CHEM 3244 Environmental Chemistry	
TECH 3413 Manufacturing Processes	
CHEM 4254 Industrial Chemistry & Environmental Regulations	
ALHLT 4355 Microbiology	
Electives (by advisement) to total	135

Engineering Technology is that 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

The Mission of the Engineering Technology Program is to provide students the education and experience necessary to understand, apply, and control the manufacturing process and the production methods of industry.

REGULATIONS PERTAINING TO GRADUATION

Minimum credit hours for graduation	135
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 (including last 8)	30
Minimum Grade Point Average in all coursework	2.00
Minimum Grade Point Average in major	2.00

ENGINEERING TECHNOLOGY (CODE 131)
COMPUTER ENGINEERING TECHNOLOGY SPECIALIZATION
Suggested Course Sequence

FIRST YEAR		SECOND YEAR	
FIRST SEMESTER	SECOND SEMESTER	FIRST SEMESTER	SECOND SEMESTER
1001 Freshman Orient* 1	1213 English Comp II 3	1044 Basic Physics I 4	1033 Computer Science I ..3
1022 Comp & Info Access..... 2	1433 Visual Basic Prog..... 3	2823 Applied Calculus..... 3	2513 Fabrication Proc. I.....3
1101 Intro to Technology..... 1	1613 College Trig..... 3	3873 Applied Elec. 3	Gen Educ Crses 11
1113 English Comp I 3	3203 CAD I 3	Gen Educ Crses 8	
1203 Engineering Draft..... 3	Gen Educ Crses..... 6	English Proficiency Exam**	
1513 College Algebra 3			
Gen Educ Crses 5			
Total: 18	Total:..... 18	Total: 18	Total: 17

THIRD YEAR		FOURTH YEAR	
FIRST SEMESTER	SECOND SEMESTER	FIRST SEMESTER	SECOND SEMESTER
1004 General Chemistry 4	3143 Technical Pres..... 3	3113 Industrial Safety 3	3163 Power Systems 3
1053 Computer Science II 3	3463 Mfg Oper I..... 3	4493 Mfg Oper II 3	3263 Machine Drafting I... 3
3413 Statistical Methods I..... 3	3613 Power Systems..... 3	4813 Networking Elec 3	4020 Professional Cert.
4433 Quality Control 3	3843 Telecommunications..... 3	4823 Digital Electronics..... 3	4833 Microcomputer Elec. 3
COMSC Elective 3	COMSC Elective 3	COMSC Elective..... 3	COMSC Elective 3
	Gen Educ Crse 3		Electronics Elective..... 4
Total: 16	Total:..... 18	Total: 15	Total: 16

* 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 SPECIALIZATION
Suggested Course Sequence

FIRST YEAR		SECOND YEAR	
FIRST SEMESTER	SECOND SEMESTER	FIRST SEMESTER	SECOND SEMESTER
1001 Freshman Orient* 1	1213 English Comp II 3	1044 Basic Physics I 4	1934 Physical Geology 4
1022 Comp & Info Access..... 2	1433 Visual Basic Prog..... 3	2813 Basic Electr. II 3	2513 Fabrication Proc I.....3
1101 Intro to Technology..... 1	1613 College Trigonometry 3	2823 Applied Calculus..... 3	Gen Educ Crses 11
1113 English Comp I 3	1813 Basic Electronics I..... 3	Gen Educ Crses 8	
1203 Engineering Draft..... 3	Gen Educ Crses..... 6	English Proficiency Exam**	
1513 College Algebra 3			
Gen Educ Crses 5			
Total: 18	Total:..... 18	Total: 18	Total: 18

THIRD YEAR		FOURTH YEAR	
FIRST SEMESTER	SECOND SEMESTER	FIRST SEMESTER	SECOND SEMESTER
1203 Gen Chem I..... 3	2114 Organic/Biochem 4	1303 Gen Chem II..... 3	Gen Educ Crse..... 3
1252 Gen Chem I Lab 2	2114L Organic/Biochem Lab	1352 Gen Chem II Lab..... 2	3244 Environ Chem 4
3113 Industrial Safety..... 3	3263 Machine Drafting I..... 3	3413 Statistical Methods I 3	3613 Power Systems 3
3143 Technical Pres. 3	3413 Mfg. Processes 3	4254 Industrial Chem 4	4020 Professional Cert
3203 CAD I..... 3	Gen Educ Crse 4	4433 Quality Control..... 3	4355 Microbiology 5
3463 Mfg. Oper. I 3			4493 Mfg Oper II..... 3
Total: 17	Total:..... 14	Total: 15	Total: 18

* 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)
MANUFACTURING ENGINEERING TECHNOLOGY SPECIALIZATION
Suggested Course Sequence

FIRST YEAR		SECOND YEAR	
FIRST SEMESTER	SECOND SEMESTER	FIRST SEMESTER	SECOND SEMESTER
1001 Freshman Orient* 1	1213 English Comp II3	1044 Basic Physics I..... 4	3523 Fab. Proc. II 3
1022 Comp & Info Access..... 2	1433 Visual Basic Prog3	2823 Applied Calculus..... 3	3873 Applied Elec..... 3
1101 Intro to Technology..... 1	1613 College Trigonometry3	3203 CAD I 3	Gen Educ Crses..... 11
1113 English Comp I 3	2513 Fab. Proc. I.....3	Gen Educ Crses..... 8	
1203 Engineering Draft..... 3	Gen Educ Crses6	English Proficiency Exam**	
1513 College Algebra..... 3			
Gen Educ Crses..... 5			
Total: 18	Total: 18	Total: 18	Total: 17

THIRD YEAR		FOURTH YEAR	
FIRST SEMESTER	SECOND SEMESTER	FIRST SEMESTER	SECOND SEMESTER
1004 General Chemistry 4	3113 Industrial Safety3	3513 Materials Test.....3	3613 Power Systems..... 3
3143 Tech. Pres..... 3	3263 Machine Drafting I.....3	3433 Automation/Robotics ..3	4020 Professional Cert
3183 Statics & Strengths..... 3	3413 Manfg Processes.....3	4373 Econ. Dec. Analy.3	4443 Materials Handlg F/P3
3413 Statistical Methods I..... 3	3463 Manfg. Ops I.....3	4433 Quality Control.....3	4454 Comp Aided Mfg 4
3813 Electro/Mech Controls.. 3	Manufacturing Elective.....2	4514 Machine Tool Proc4	4493 Manufacturing Ops I3
	Gen Educ Crse3	4951 Capstone I..... 1	4962 Capstone II 2
Total: 16	Total: 17	Total: 17	Total: 15

* First time entering Freshmen need to take 1001 Freshman Orientation

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