

Note: No Major or Support courses may be selected as credit/no credit.

MAJOR COURSES		
CE 204	Mechanics of Materials I	3
CSC/CPE 101	Fundamentals of Computer Science ¹	4
EE 201 & EE 251	Electric Circuit Theory and Electric Circuits Laboratory	4
ENGR 110	Introduction to Engineering	2
IME 144	Introduction to Design and Manufacturing	4
IME 314 or IME 315	Engineering Economics Financial Decision Making for Engineers	3
MATE 210 & MATE 215	Materials Engineering and Materials Laboratory I	4
ME 211	Engineering Statics	3
ME 212	Engineering Dynamics	3
ME 302	Thermodynamics I	3
ME 341	Fluid Mechanics I	3
ME 343	Heat Transfer	4
Select from the following:		6
ENGR 459 & ENGR 460 & ENGR 461	Interdisciplinary Senior Design Project I and Interdisciplinary Senior Design Proj II and Interdisciplinary Senior Design Proj III	
or		
Senior Project in appropriate engineering discipline		
General Curriculum or ICS ² (see reverse for list)		40
Total Major Units		86
SUPPORT COURSES		
Select from the following (B1 & B3): ³		8
CHEM 124 & CHEM 125	Gen Chem for Physical Science and Engr I and Gen Chem for Physical Sci and Engr II	
CHEM 127 & CHEM 128	Gen Chem for Agriculture and Life Science I and Gen Chem for Agriculture and Life Sci II	
ES 350 or ES 351	Gender, Race, Culture, Science & Technology ⁴ Gender, Race, Class, Nation in Global Engineering, Technology & International Development	4
MATH 141	Calculus I (B4) ³	4
MATH 142	Calculus II (B4) ³	4
MATH 143	Calculus III (Area B Electives) ³	4
MATH 241	Calculus IV	4
MATH 244	Linear Analysis I	4
Select from the following (Upper-Division B): ³		4
MATH 344	Linear Analysis II	
STAT 312	Statistical Methods for Engineers	
STAT 350	Probability & Random Processes for Engrs	
PHYS 141	General Physics I (Area B Electives) ³	4
PHYS 142	General Physics II	4
PHYS 143	General Physics III	4
Physical Science Electives ⁵ (see reverse for list)		4
Total Support Units		52

GENERAL EDUCATION		
Area A English Language Communication and Critical Thinking		
A1	Oral Communication	4
A2	Written Communication	4
A3	Critical Thinking	4
Area B Scientific Inquiry and Quantitative Reasoning		
B1	Physical Science (4 units in Support) ³	0
B2	Life Science	4
B3	One lab taken with either a B1 or B2 course	
B4	Mathematics/Quantitative Reasoning (8 units in Support) ³	0
Upper-Division B (4 units in Support) ³		0
Area B Electives (8 units in Support) ³		0
Area C Arts and Humanities		
Lower-division courses in Area C must come from three different subject prefixes.		
C1	Arts	4
C2	Humanities	4
Lower-Division C Elective - Select a course from either C1 or C2.		4
Upper-Division C		4
Area D Social Sciences		
D1	American Institutions (Title 5, Section 40404 Requirement)	4
Area D Elective - Select either a lower-division D2 or upper-division D course.		4
Area E Lifelong Learning and Self-Development		
Lower-Division E		4
Area F Ethnic Studies		
F	Ethnic Studies	4
Total GE Units		48
FREE ELECTIVES ⁴		0
TOTAL DEGREE UNITS		186

FOOTNOTES	
¹ Students with an approved Individualized Course of Study may substitute CSC 231 (2 units) plus an additional 2 units of other advisor approved coursework for CSC/CPE 101 (4 units).	
² The Individualized Course of Study consists of 40 units of technical electives with a minimum of 29 units at the 300-400 level.	
³ Required in Major or Support; also satisfies General Education (GE) requirement.	
⁴ If a General Education (GE) course is used to satisfy a Major or Support requirement, additional units of Free Electives may be needed to complete the total units required for the degree.	
⁵ Students in the General Curriculum in General Engineering should choose a minimum of 3 units of 300-400 level Physical Science Electives in order to meet 60 units of upper-division required for the degree.	



Physical Science Electives		
Select from the following: ⁵		4
CHEM 126	Gen Chem for Physical Sci & Engineering III	
or CHEM 129	Gen Chem for Agriculture & Life Science III	
GEOL 102	Introduction to Geology	
GEOL 201	Physical Geology	
GEOL 241	Physical Geology Laboratory	
GEOL 305	Seismology and Earth Structure	
PHYS 211	Modern Physics I	
PHYS 323	Optics	

General Curriculum in BS General Engineering or Individualized Course of Study (Select one)		
CE 207	Mechanics of Materials II	2
CPE/EE 133	Digital Design	4
CPE/CSC 202	Data Structures	4
CPE/EE 329	Microcontroller-Based Systems Design	4
or IME 356	Manufacturing Automation	
or ME 305	Introduction to Mechatronics	
EE 321	Electronics	4
& EE 361	and Electronics Laboratory	
IME 418	Product-Process Design	4
Approved Electives (300-level or higher)		18
Total units		40

Individualized Course of Study	40
This program is for self-directed, highly motivated students, allowing them to pursue a customized course of study that meets their individual needs and interests. The Individualized Course of Study consists of 40 units of technical electives with a minimum of 29 of these units at the 300-400 level. Courses are selected by the student with the advice and approval of the student's academic advisor.	