

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

MAJOR COURSES		
CHEM 124	General Chemistry for Physical Science and Engineering I (B1 & B3) ¹	4
LAES 301	Project-Based Learning in Liberal Arts and Engineering Studies	4
LAES 302	Advanced Project-Based Learning in Liberal Arts and Engineering Studies	4
LAES 461	Senior Project in Liberal Arts and Engineering Studies	4
LAES 462	Capstone Senior Seminar in Liberal Arts and Engineering Studies	4
MATH 141	Calculus I (B4) ¹	4
MATH 142	Calculus II (GE Electives) ¹	4
MATH 143	Calculus III	4
MATH 241	Calculus IV	4
MATH 244	Linear Analysis I	4
PHYS 141	General Physics I	4
PHYS 142	General Physics II	4
PHYS 143	General Physics III	4
STAT 312 or STAT 321 or STAT 350	Stat Methods for Engineers (Upper-Div B) ¹ Prob & Stats for Engrs & Scientists (UD-B) Prob & Random Processes for Engrs (UD-B)	4
Study Abroad or Global Perspectives courses		8
300-400 level		
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Engineering Concentration or Individualized Course of Study ²		34-36
Minimum 12 units at 300-400 level		
Liberal Arts Concentration or Individualized Course of Study ²		24
Minimum 12 units at 300-400 level		
Total Major Units		122 -124

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 Major) ¹	0
B2	Life Science	4
B3	One lab taken with either a B1 or B2 course	
B4	Mathematics/Quantitative Reasoning (4 units in Major) ¹	0
Upper-Division B (4 units in Major) ¹		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 - Select courses in Area D from at least two different prefixes		
D1	American Institutions (Title 5, Section 40404 Req)	4
D2	Lower-Division D	4
Upper-Division D		4
Area E Lifelong Learning and Self-Development		
Lower-Division E		4
Area F Ethnic Studies		
F	Ethnic Studies	4
GE Electives in Areas B, C, and D		
Select courses from two different areas; may be lower-division or upper-division courses.		
GE Electives (4 units B in Major) ¹		0
GE Electives (Area C or D)		4
Total GE Units		56
FREE ELECTIVES ²		0-2
TOTAL DEGREE UNITS		180

FOOTNOTES	
1 Required in Major or Support; also satisfies General Education (GE) requirement.	
2 If a General Education (GE) course is used to satisfy a Major or Support requirement, additional units of Free Electives may be required to complete the total units required for the degree.	

Computer Graphics		
CSC/CPE 101	Fundamentals of Computer Science	4
CSC/CPE 202	Data Structures	4
CSC/CPE 203	Project-Based Obj-Oriented Program & Design	4
CSC/CPE 123	Introduction to Computing	4
CSC 225	Introduction to Computer Organization	4
CSC 248	Discrete Structures	4
CSC/CPE 357	Systems Programming	4
CSC/CPE 471	Introduction to Computer Graphics	4
CSC 476	Real-Time 3D Computer Graphics Software	4
Total Units		36

Electrical Engineering (Power)		
EE 111	Introduction to Electrical Engineering	1
EE 151	Introduction to Electrical Engineering Lab	1
EE 112	Electric Circuit Analysis I	2
EE 211	Electric Circuit Analysis II	3
EE 241	Electric Circuit Analysis Laboratory II	1
EE 212	Electric Circuit Analysis III	3
EE 242	Electric Circuit Analysis Laboratory III	1
EE 255	Energy Conversion Electromagnetics	3
EE 295	Energy Conversion Electromagnetics Laboratory	1
EE 335	Electromagnetic Fields and Transmission	4
EE 375	Electromagnetic Fields and Transmission Lab	1
EE 406	Power Systems Analysis I	4
EE 407	Power Systems Analysis II	4
EE 444	Power Systems Laboratory	1
Advisor approved	Power Technical Elective	4
Total Units		34

Industrial/Manufacturing Engr. - System Design		
IME 101	Intro to Industrial and Manufacturing Engr	1
IME 223	Process Improvement Fundamentals	4
IME 239	Industrial Costs and Controls	3
IME 301	Operations Research I	4
IME 303	Project Organization and Management	4
IME 314	Engineering Economics	3
IME 319	Human Factors Engineering	3-4
or IME 320	Human Factors and Technology	
IME 326	Engineering Test Design and Analysis	4
IME 420	Simulation	4
IME 443	Facilities Planning and Design	4
Total Units		34-35

Usability Studies		
CSC/CPE 101	Fundamentals of Computer Science	4
CSC/CPE 202	Data Structures	4
CSC/CPE 203	Project-Based Obj-Oriented Program & Design	4
CSC 225	Introduction to Computer Organization	4
CSC 248	Discrete Structures	4
CSC 307	Introduction to Software Engineering	4
CSC/CPE 357	Systems Programming	4
CSC 484	User-Centered Interface Design & Develop	4
CSC 486	Human-Computer Interact Theory & Design	4
Total Units		36

Individualized Course of Study in Engineering		
Consists of 34 units of an advisor approved integrated course of study from courses offered in the College of Engineering designed to meet the LAES learning objectives, with at least 12 of the units at the upper-division level. Courses must be drawn from at least two engineering disciplines.		

Interactive Communication-Cinematic Focus		
ENGL 371	Film Styles and Genres	4
ENGL 411	New Media Arts I	4
TH 210	Introduction to Theatre	4
Approved Electives		
Select from the following:		12
COMS 206	COMS 385	ENGL 412
COMS 384	ENGL 372	POLS 470
Total Units		24

Interactive Comms-Theatrical		
ENGL 411	New Media Arts I	4
TH 210	Introduction to Theatre	4
TH 227	Theatre History I	4
or TH 228	Theatre History II	
Approved Electives		
Select from the following: ¹		12
ENGL 412	TH 220	TH 330
ISLA 320	TH 230	TH 390
		TH 430
		TH 434
Total Units		24

¹ No more than one lower-division course.

Publishing Technology		
GRC 101	Introduction to Graphic Communication	3
GRC 201	Digital Publishing Systems	3
GRC 211	Materials for Graphic Communication Applications	4
ISLA 303	Values and Technology	4
or PHIL 341	Professional Ethics	
or PHIL 337	Business Ethics	
Approved Electives		
Select from the following:		10
COMS 317	Technology and Human Communication	
GRC 316	Flexographic Printing Technology	
GRC 328	Digital and Offset Printing Methods	
GRC 329	Tangible Interactive Product Development	
GRC 402	Digital Printing & Emerging Tech in Graphic Communication	
Total Units		24

Technical Communication		
COMS 317	Technology and Human Communication	4
ENGL 317	Technical Editing	4
ENGL 319	Information Design and Production	4
Approved Electives		
Select from the following:		12
COMS 213	Organizational Communication	
COMS 301	Business and Professional Communication	
ENGL 310	Corporate Communication	
ISLA 303	Values and Technology	
PHIL 337	Business Ethics	
or PHIL 341	Professional Ethics	
Total Units		24

Individualized Course of Study in the Liberal Arts		
Consists of 24 units of an advisor approved integrated course of study from courses offered in the College of Liberal Arts designed to meet the LAES learning objectives, with at least 12 of the units at the upper-division level.		
Students may complete a minor program selected from pre-approved minors. These minors include any minor offered by the College of Liberal Arts, as well as interdisciplinary, cross-college minors in which students complete a minimum of half of the units in the College of Liberal Arts (e.g., Indigenous Studies in Natural Resources & the Environment; Sustainable Environments).		