



**CALIFORNIA LUTHERAN UNIVERSITY
REQUIREMENTS FOR BACHELOR OF SCIENCE
BIOENGINEERING**

NAME: _____ STUDENT ID: _____ TERM ENTERED: _____
Catalog: 2004 - 2005

You should meet with your adviser once a semester. You may not register without your adviser's signature.

Course	Title	Credit	Comp LD	Comp UD	In Progress	Term Planned	Comments
BIEN 210	Introduction to Engineering	4					
BIEN 220	Intro to Bioengineering	4					
BIOL 121	Intro to Cells & Organisms	3					BIOL 120 recommended
BIOL 122	Intro to Genes & Develop.	3					BIOL 120 & 121 recommended
BIOL 123 or BIOL 124	Intro to Biol Experiment. I or Intro to Biol Experiment. II	2 2					
BIOL 461	Vertebrate Physiology	4					Prerequisites BIOL 120,121,122,123, & 124; CHEM 151 & 152
	<i>Select 4 courses from the following</i>						
BIEN 401	Biomaterials & Tissue Engineering	4					
BIEN 402	Biosensors and Imaging	4					
BIEN 403	Biosyst. Anal & Control	4					
BIOL 422	Bioinformatics – Analytical	4					
BIOL 482	Neurobiology	4					
CHEM 305	Quantitative Analysis	4					
CHEM 306	Instrumentation	4					Prerequisite CHEM 305
CHEM 425 & 425L	Biochemistry & Lab	4					Prerequisite CHEM 201 or 332
CSC 412	Bioinformatics – Computation	4					
ESSM 460	Mechanics of Biosystems – Calculus	4					
PHIL 345	Bioethics	4					
PHYS 309	Applied Electronics	4					Prerequisites MATH 151; PHYS 102, 212 or high school physics
PHYS 370	Digital Electronics	3					Prerequisite MATH 151

Required Supporting Courses:

Course	Title	Credit	Comp LD	Comp UD	In Progress	Term Planned	Comments
CHEM 151 & 151L	General Chem I and Lab	5					Prerequisites high school chem.; MATH 110
CHEM 152 & 152L	General Chem II and Lab	5					Prerequisite CHEM 151
CHEM 201	Elementary Organic Chem	4					Prerequisite CHEM 152
CSC 210	Intro to Programming	4					Prerequisite CSC 110 or consent of instructor
MATH 251	Calculus I	4					Prerequisite MATH 151 or SAT Math 600+
MATH 252	Calculus II	4					Prerequisite MATH 251
MATH 261	Calculus III	4					Prerequisite MATH 252
MATH 265	Differential Equations	4					Prerequisite MATH 251; MATH 261 recommended
MATH 352	Probability/Statistics	4					Prerequisite MATH 252; MATH 261 recommended
PHYS 201 or PHYS 211	Mechanics & Thermodynamics and Lab	4 or 5					Prerequisite MATH 151 Prerequisite MATH 251
PHYS 202 or PHYS 212	Electricity, Magnetism, Optics and Lab	4 or 5					Prerequisite MATH 151 Prerequisite MATH 251; PHYS 211 recommended

Recommended Courses

BIOL 341	Comparative Anatomy	4					Prerequisites BIOL 120, 121, 122, 123, & 124
BIOL 361	Microbiology	4					Prerequisite BIOL 122, 124, or equivalent
MATH 343	Linear Algebra	4					Prerequisite MATH 252; MATH 261 recommended
MATH 450	Complex Analysis	4					Prerequisites MATH 261 and one other upper division MATH

Major Requirements

Requirement	Completed	In Progress	Remaining
total credits: 39 min			
upper-division credits: 24			
2.00 major GPA			

******If you are interested in attending graduate school, please discuss this with your faculty advisor, as your course selections may affect your ability to enroll in further educational opportunities**

ADVISER REMARKS:

ADVISER SIGNATURE: _____ DATE: _____