BIOSYSTEMS ENGINEERING

Courses highlighted below are available at North Greenville University

CurriculumExample*

FRESHMAN YEAR			
_____	4	CH 1010 General Chemistry	
_____	3	ENGL 1030 Accelerated Composition	
_____	2	ENGR 1020 Engineering Discipline and Skills[1]	
_____	4	MATH 1060 Calculus of One Variable I	
_____	3	Gen Ed[4]_____	
	16		
_____	4	CH 1020 General Chemistry	
_____	3	ENGR 1410 Programming and Problem Solving[1]	
_____	2	ENGR 2100 Computer-Aided Design and Engineering Applications	
_____	4	MATH 1080 Calculus of One Variable II	
_____	3	PHYS 1220 Physics with Calculus I	
	16		

SOPHOMORE YEAR			
_____	2	BE 2120 Fundamentals of Biosystems Engr.	
_____	3	CE 2010 Statics[2]	
_____	4	MATH 2060 Calculus of Several Variables	
_____	3	PHYS 2210 Physics with Calculus II	
_____	4	Biology Requirement[3] _____	
	16		
_____	2	BE 2100 Intro. to Biosystems Engineering	
_____	2	CE 2080 Dynamics[2]	
_____	4	MATH 2080 Int. to Ordinary Differential Eqtns	
_____	3	ME 3100 Thermodynamics and Heat Transfer	
_____	4	MICR 3050 General Microbiology	
	15		

JUNIOR YEAR			
_____	3	BE 3200 Principles and Practices of Geomatics	
_____	3	BE 4100 Biol. Kinetics and Reactor Modeling	
_____	3	BIOL 4410 Ecology	
_____	4	CE 3410 Introduction to Fluid Mechanics	
_____	2	ECE 2070 Basic Electrical Engineering	
_____	1	ECE 2080 Basic Electrical Engineering Lab.	
	16		
_____	3	BE 3220 Small Watershed Hydrology & Sedimentology	
_____	3	BE 4120 Heat & Mass Transport in Biosystems Engr.	
_____	3	BE 4150 Instrumentation and Process Control for Biosystems Engineering	
_____	3	BE 4380 Bioprocess Engineering Design	
_____	3	CH 2230 Organic Chemistry	
_____	1	CH 2270 Organic Chemistry Laboratory	
	16		

SENIOR YEAR			
_____	3	BCHM 3050 Biochemistry	
_____	3	BE 4280 Biochemical Engineering	
_____	2	BE 4740 Biosystems Engr. Design/Project Mgt.	
_____	2	BE 4750 Biosystems Engr. Capstone Design	
_____	2	BIOL 4340 Biol. Chemical Lab. Techniques	
_____	4	CE 2060 Structural Mechanics	
	16		
_____	9	Gen Ed[4]_____	
_____	3	Engineering Requirement[5]_____	
_____	3	Global Sustainability Requirement[6]_____	
	15		

126 Total Semester Hours

All Clemson engineering students begin in our General Engineering program and move into their specified major once the departmental standards are completed. Clemson courses ENGL 1030, MATH 1060 and 1080, PHYS 1220, CH 1010, ENGR 1020 and ENGR 1410/or CHE 1300 must all be completed with a "C" or higher before declaring and starting courses in your engineering major.

Footnotes:

1 ENGR 1070, ENGR 1080 and ENGR 1090 may be substituted for ENGR 1410; ENGR 1050 and ENGR 1060 may be substituted for ENGR 1020

2 ME 2010 may be substituted for CE 2010 and CE 2080

3 BIOL 1030/BIOL 1050 or BIOL 1100

4 Students should choose courses to fulfill General Education requirements including Humanities, Social Science, Cross-Cultural Awareness and Science and Technology in society components. See Undergraduate Announcements and academic advisor for details.

5 Select from BE 3140, BE 4080, BE 4140, BE 4170, BE 4220, BE 4400, BE 4640, BE 4730, BE 4840, CE 3210, CE 3520, CE 4020, CE 4060, CE 4820, EES 4010, EES 4020, EES 4100, EES 4300, EES 4800, EES 4840, EES 4850, EES 4860, GEOL 4210, IE 3840, or any 3000- or 4000-level ENGR course.

6 Select CU 2010 or any course from the Sustainability Minor course list.

*See catalog for current curriculum at catalog.clemson.edu

General Education Requirements						
LIT	Non-Lit	SS1	SS2		CCA	STS
Other						
LIFE	Palmetto Fellows	Honors	Athlete	RiSE	ROTC	Med School

Comments: