

**Undergraduate Curriculum in Biological Systems Engineering  
Bioenvironmental Engineering Option**

2009-2011 Catalog  
Total Credits 127.5

**First Year (31.5 cr.)**

<b>Semester 1 (15.5 cr.)</b>		<b>Semester 2 (16 cr.)</b>	
R	Engr101 Orientation (FS)	1	BSE 110 Experiencing BSE (S)
3	Engr 170 Graphics and Design (FS)	3	Engr 160 Engineering Problems (FS)
4	Math 165 Calculus I (FS)	4	Math 166 Calculus II (FS)
4	Chem 167 General Chemistry (FS)	5	Phys 221 Classical Physics I (FSSS)
1	Chem 167L General Chemistry Lab (FS)	3	SS&H Elective (FSSS)
3	Engl 150 Crit. Think. and Comm.(FSSS)		
.5	Lib 160 Library Instruction (FSSS)		

**Second Year (33 cr.)**

<b>Semester 3 (17 cr.)</b>		<b>Semester 4 (16 cr.)</b>	
3	EM 274 Statics of Engineering (FSSS)	1	BSE 201 Entrepreneurship Seminar (FS)
3	Stat 305 Engineering Statistics (FSSS)	3	BSE 216 Fund. Ag. and Biol. Engineering (S)
5	Phys 222 Classical Physics II (FSSS)	3	EM 324 Mechanics of Materials (FSSS)
3	Biol 212 Principles of Biology II (FS)	1	EM 327 Mechanics of Materials Lab (FSSS)
3	Engl 250 Writ/Oral/Vis/Elec Composition (FS)	4	Math 267 Differential Equations (FSSS)
		2	Chem 211 Environmental Analysis (FS)
		2	Chem 211L Environmental Analysis Lab (FS)

**Third Year (31 cr.)**

<b>Semester 5 (14 cr.)</b>		<b>Semester 6 (17 cr.)</b>	
4	AE 363 Electric Power and Electronics (F)	1	BSE 301 Leadership and Ethics Seminar (FS)
3	BSE 316 Applications and Systems Modeling (F)	3	ChE 356 Transport Phenomena I (FS)
3	Chem 231 Organic Chemistry (FS)	3	Micro 302 Biology of Microorganisms (FS)
1	Chem 231L Organic Chemistry Lab (FS)	1	Micro 302L Microbiology lab (FS)
3	CE 326 Environmental Engineering (FS)	3	BSE 380 Principles of BSE (S)
		3	ME 330 Thermodynamics (FS)
		3	Bioenvironment Elective I (FS)

**Fourth Year (32 cr.)**

<b>Semester 7 (15 cr.)</b>		<b>Semester 8 (17 cr.)</b>	
1	BSE 401 Professionalism Seminar (FS)	2	BSE 416 BSE Design II (FS)
3	AE 404 Instrumentation for Ag and Bio Engr (F)	3	Ch E 357 Transport Phenomena II (FS)
2	BSE 415 Biological Systems Engr. Design I (FS)	3	Bioenvironment Elective II (FS)
3	AE 431 Soil and Water Conservation (F)	3	Diversity Elective(FSSS)
3	BSE 480 Engineering Analysis of Bio Systems (F)	3	International Perspectives Elective (FSSS)
3	SSH Elective (FSSS)	3	Communication Elective (FSSS)