

**Undergraduate Curriculum in Biological Systems Engineering
Pre-Professional and Pre-Graduate Option**

2016-2017 Catalog

Total Credits 128

First Year (32 cr.)

Semester 1 (16 cr.)		Semester 2 (16 cr.)			
R	Engr 101	Orientation (FS)	1	A B E 110	Experiencing BSE (S)
3	A B E 170	Graphics and Design (FS)	3	A B E 160	Engineering Problems (FS)
4	Math 165	Calculus I (FSSS)	4	Math 166	Calculus II (FSSS)
4	Chem 167	General Chemistry (FS)	5	Phys 221	Classical Physics I (FSSS)
1	Chem 167L	General Chemistry Lab (FS)	3	Engl 250	Writ/Oral/Vis/Elec Composition (FSSS)
3	Engl 150	Crit. Think. and Comm.(FSSS)			
1	Lib 160	Information Literacy (FSSS)			

Second Year (33 cr.)

Semester 3 (17 cr.)		Semester 4 (16 cr.)			
3	A B E 216	Fund. Ag. and Biol. Engineering (F)	2	A B E 218	Project Mgmt/Design Ag & Bio Engr (S)
3	EM 274	Statics of Engineering (FSSS)	1	A B E 201	Preparing for the Workplace (FS)
3	Stat 305	Engineering Statistics (FSSS)	3	EM 324	Mechanics of Materials (FSSS)
5	Phys 222	Classical Physics II (FSSS)	4	Math 267	Differential Equations (FSSS)
3	Biol 212	Principles of Biology II (FSSS)	3	ME 231	Thermodynamics (FSSS)
			3	→	SSH Elective (FSSS)

Third Year (32 cr.)

Semester 5 (15 cr.)		Semester 6 (17 cr.)			
3	A B E 316	Applications and Systems Modeling (FS)	3	A B E 380	Principles of BSE (S)
4	A B E 363	Electric Power and Electronics (FS)	3	→	Heat/Mass Transport Sequence I
1	EM 327	Mechanics of Materials Lab (FSSS)	3	→	Sequence Course I (FS)
3	Chem 331	Organic Chemistry I (FSSS)	3	Chem 332	Organic Chemistry II (FS)
1	Chem 331L	Organic Chemistry I Lab(FSSS)	1	Chem 332L	Organic Chemistry II Lab (FS)
3	→	SS&H Elective (FSSS)	3	Micro 302	Biology of Microorganisms (FSSS)
			1	Micro 302L	Microbiology lab (FSSS)

Fourth Year (31 cr.)

Semester 7 (14 cr.)		Semester 8 (17 cr.)			
2	A B E 415	Ag & Biosystems Engr. Design I (FS)	2	A B E 416	Ag & Biosystems Engr. Design II (FS)
3	A B E 404	Instrumentation for Ag and Bio Engr (F)	3	→	Technical Elective
3	A B E 480	Engineering Analysis of Bio Systems (F)	3	→	Sequence Course III (FS)
3	→	Heat/Mass Transport Sequence II	3	→	Communication Elective (FSSS)
3	→	Sequence Course II (FS)	3	→	International Perspective Elective (FSSS)
			3	→	U. S. Diversity Elective (FSSS)

**Please check the current catalog and Schedule of Classes for most recent offerings*