

Undergraduate Curriculum in Biological Systems Engineering

Food Engineering Option

2011-2012 Catalog

Total Credits 127.5

First Year (31.5 cr.)

Semester 1 (15.5 cr.)		Semester 2 (16 cr.)		
R	Engr101	Orientation (FS)	1 BSE 110	Experiencing BSE (S)
3	BSE170	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 Biol 212	Principles of Biology II (FS)
3	Engl 150	Crit. Think. and Comm.(FSSS)		
.5	Lib 160	Library Instruction (FSSS)		

Second Year (32 cr.)

Semester 3 (17 cr.)		Semester 4 (15 cr.)		
3	EM 274	Statics of Engineering (FSSS)	1 BSE 201	Entrepreneurship Seminar (FS)
3	Stat 305	Engineering Statistics (FSSS)	2 BSE 218	Project Mgmt/Design Ag & Bio Engr (S)
5	Phys 222	Classical Physics II (FSSS)	3 EM 324	Mechanics of Materials (FSSS)
3	BSE 216	Fund. Ag. and Biol. Engineering (F)	1 EM 327	Mechanics of Materials Lab (FSSS)
3	Engl 250	Writ/Oral/Vis/Elec Composition (FS)	4 Math 267	Differential Equations (FSSS)
			3 Chem 231	Organic Chemistry (FSSS)
			1 Chem 231L	Organic Chemistry Lab (FSSS)

Third Year (33 cr.)

Semester 5 (17 cr.)		Semester 6 (16 cr.)		
4	AE 363	Electric Power and Electronics (F)	3 ChE 356	Transport Phenomena I (FS)
3	BSE 316	Applications and Systems Modeling (F)	3 Micro 302	Biology of Microorganisms (FS)
3	ME 231	Thermodynamics (FS)	1 Micro 302L	Microbiology lab (FS)
3	FSHN 311	Food Chemistry (F)	3 BSE 380	Principles of BSE (S)
1	FSHN 311L	Food Chemistry Lab (F)	3	SS&H Elective (FSSS)
3	AE 451	Food Engineering (F)	3	SS&H Elective (FSSS)

Fourth Year (31 cr.)

Semester 7 (14 cr.)		Semester 8 (17 cr.)		
3	AE 404	Instrumentation for Ag and Bio Engr (F)	2 BSE 416	BSE Design II (FS)
2	BSE 415	Biological Systems Engr. Design I (FS)	3 BSE 469	Grain Processing and Handling (S)
3	BSE 480	Engineering Analysis of Bio Systems (F)	3 Ch E 357	Transport Phenomena II (FS)
3	FSHN 420	Food Microbiology (F)	3	Communication Elective (FSSS)
3	FSHN 471	Food Processing (F)	3	International Perspective Elective (FSSS)
			3	Diversity Elective (FSSS)