

## Undergraduate Curriculum in Biological Systems Engineering

### Food Engineering Option

2014-2015 Catalog

Total Credits 128

#### First Year (32 cr.)

<b>Semester 1 (16 cr.)</b>		<b>Semester 2 (16 cr.)</b>		
R	Engr101	Orientation (FS)	1 A B E 110	Experiencing BSE (S)
3	A B E 170	Graphics and Design (FS)	3 Engr 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 Biol 212	Principles of Biology II (FSSS)
3	Engl 150	Crit. Think. and Comm.(FSSS)		
1	Lib 160	Information Literacy (FSSS)		

#### Second Year (32 cr.)

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

#### Third Year (33 cr.)

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

#### Fourth Year (31 cr.)

<b>Semester 7 (14 cr.)</b>		<b>Semester 8 (17 cr.)</b>		
3	A B E 404	Instrumentation for Ag and Bio Engr (F)	2 A B E 416	Ag & Biosystems Engr. Design II (FS)
2	A B E 415	Ag & Biosystems Engr. Design I (FS)	3 A B E 469	Grain Processing and Handling (S)
3	A B E 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 →	U. S. Diversity Elective (FSSS)

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