

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

2022-2023 Catalog

Total Credits 127

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 (S)
4	Chem 167 General Chemistry (FS)	4	Math 166 Calculus II (FSSS)
1	Chem 167L General Chemistry Lab (FS)	4	Phys 231 Classical Physics I (FSSS)
4	Math 165 Calculus I (FSSS)	1	Phys 231L Classical Physics I Lab (FS)
3	Engl 150 Crit. Think. and Comm. (FSSS)	3	Engl 250 Writ/Oral/Vis/Elec Composition (FSSS)
1	Lib 160 Information Literacy (FSSS)		

Second Year (31 cr.)

Semester 3 (16 cr.)		Semester 4 (15 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	C E 274 Statics of Engineering (FSSS)	1	A B E 201 Preparing for the Workplace (FS)
3	Biol 212 Principles of Biology II (FSSS)	1	A B E 273 2D Auto CAD (FS)
2	Chem 211 Quant. & Environ. Analysis (FS)	3	M E 231 Thermodynamics (FSSS)
2	Chem 211L Quant. & Environ. Analysis Lab (FS)	4	Math 267 Differential Equations (FSSS)
3	→ US Diversity Elective	3	Chem 231 Elementary Organic Chemistry (FSSS)
		1	Chem 231L Elementary Organic Chemistry Lab (FSSS)

Third Year (32 cr.)

Semester 5 (16 cr.)		Semester 6 (16 cr.)	
3	A B E 316 Applications and Systems Modeling (FS)	4	A B E 363 Electric Power and Electronics (FS)
3	A B E 378 Mechanics of Fluids (FS)	3	A B E 380 Principles of BSE (S)
3	Micro 302 Biology of Microorganisms (FSSS)	3	C E 372 Engineering Hydrology and Hydraulics (FS)
1	Micro 302L Microbiology lab (FSSS)	3	E M 324 Mechanics of Materials (FSSS)
3	STAT 305 Engineering Statistics (FSSS)	3	I E 305 Engineering Economic Analysis (FSSS)
3	→ Communication Elective.		

Fourth Year (32 cr.)

Semester 7 (17 cr.)		Semester 8 (15cr.)	
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	A B E 432 Nonpoint Source Pollution & Control (S)
3	A B E 431 Des. & Eval. of Soil & Water Cons. (F)	3	C E 326 Principles of Environmental Engineering (FS)
3	A B E 480 Engineering Analysis of Bio Systems (F)	1	E M 327 Mechanics of Materials Lab (FS)
3	→ International Perspectives Elective	3	→ Bioenvironmental Elective
3	→ SS/H Elective	3	→ SS/H Elective

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