

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

2018-2019 Catalog

Total Credits 128

**First Year (32 cr.)**

| <b>Semester 1 (16 cr.)</b> |                                       | <b>Semester 2 (16 cr.)</b> |  |
|----------------------------|---------------------------------------|----------------------------|--|
| 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                          | Chem 167 General Chemistry (FS)       | 4                          | Math 166 Calculus II (FSSS)                    |
| 1                          | Chem 167L General Chemistry Lab (FS)  | 5                          | Phys 221 Classical Physics I (FSSS)            |
| 4                          | Math 165 Calculus I (FSSS)            | 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 (31 cr.)**

| <b>Semester 3 (16 cr.)</b> |   | <b>Semester 4 (15 cr.)</b> |   |
|----------------------------|---|----------------------------|---|
| 3                          | A B E 216 Fund. Ag. and Biol. Engineering (F) | 2                          | A B E 218 Project Mgmt/Design Ag & Bio Engr (S) |
| 3                          | E M 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)                      |
| 4                          | → Chemistry Sequence I with Lab(FS)           | 3                          | M E 231 Thermodynamics (FSSS)                   |
| 3                          | → U. S. Diversity Elective(FSSS)              | 4                          | Math 267 Differential Equations (FSSS)          |
|                            |   | 4                          | → Chemistry Sequence II with Lab(FS)            |

**Third Year (32 cr.)**

| <b>Semester 5 (16 cr.)</b> |  | <b>Semester 6 (16 cr.)</b> |   |
|----------------------------|--|----------------------------|---|
| 3                          | A B E 316 Applications and Systems Modeling (FS) | 4                          | A B E 363 Electric Power and Electronics (FS) |
| 3                          | E M 378 Mechanics of Fluids (FS)                 | 3                          | A B E 380 Principles of BSE (S)               |
| 3                          | Micro 302 Biology of Microorganisms (FSSS)       | 3                          | A B E 469 Grain Processing and Handling (S)   |
| 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                          | → International Perspectives Elective (FSSS)     |                            |   |

**Fourth Year (33 cr.)**

| <b>Semester 7 (17 cr.)</b> |   | <b>Semester 8 (16 cr.)</b> |  |
|----------------------------|---|----------------------------|--|
| 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 451 Food and Bioprocess Engineering (S)  |
| 3                          | A B E 480 Engineering Analysis of Bio Systems (F) | 1                          | E M 327 Mechanics of Materials Lab (FSSS)      |
| 3                          | FSHN 420 Food Microbiology (F)                    | 4                          | M E 436 Heat Transfer (FSSS)                   |
| 3                          | → Food Elective                                   | 3                          | → SS/H Elective (FSSS)                         |
| 3                          | → Communication Elective (FSSS)                   | 3                          | → SS/H Elective (FSSS)                         |

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