

**Biosystems Engineering Catalog 2025**  
**Ecological Systems Concentration**

Fall 16 hours	<b>Math 132 or 141 or 147 (3-4) (QR) FA,SP,SU</b> Math 132 Prereq- Math 131 Math 141 Prereq- ACT Math 28 or SAT Math 660	<b>EF 142 or 151 or 157 (4) (EI) FA, SP</b> EF 142 Prereq- EF 141 with C- or better and Math 131 EF 142 Coreq- Math 132 EF 151 Coreq- 141/147 or higher and EECS majors COSC 101/102	<b>EF 105 (1) FA, SP</b> Coreq- EF 152 or 158	<b>Chem 122(3) and 123(1) or 128 (4)(NS) FA, SP, SU</b> Prereq-Math 119; recommended background in Math 131	<b>English 101 or 131 (3) FA, SP, SU</b> 101 Standard; 131 English Second Language	
Spring 17 hours	<b>Math 142 or 148 (4) (QR) FA, SP, SU</b> Prereq- Math 132 or 141 or 147	<b>EF 152 or 158 (4) (NS and EI) FA, SP, SU</b> Prereq-EF 142/151/157 with C or higher Coreq- Math 142 or 148 and EF 105 or COSC 101 or 102	<b>ME 202 (2) FA, SP, SU</b> Coreq- EF 152 or 158 and Math 142 or 148	<b>Environmental and Soil Science 220 (3) SP</b> Global Citizenship United States (GCUS)	<b>English 102 or 112 or 298 or 132 (3) FA, SP, SU</b> see catalog for prereqs	<b>BSE 104 (1) SP</b> Coreq- EF 142 or EF 151 or 157
Fall 17 hours	<b>Math 241 or 247 (4) FA, SP, SU</b> Prereq- Math 142 or 148	<b>ME 231 (3) FA, SP, SU</b> Prereq- EF 152 or 158 and ME202 with grades of C or better	<b>BSE 224 (3) FA</b> Prereq- EF 152 or 158 and Chem 122/123 or 128	<b>BSE 201 (1) FA</b>	<b>BSE 221 (3) FA</b> Prereq- Chem 122 and 123 or 128 Coreq- EF 152 or 158	<b>BSE 231 (3) FA</b> Prereq- Chem 122 & 123 or 128 and Math 132 or 141 or 147
Spring 16 hours	<b>Math 231 or 237 (3) FA, SP, SU</b> Prereq- Math 142 or 148	<b>Biology 160 or 168 (3) (NS) FA, SP, SU</b> Coreq- Chemistry 122 and 123 or 128	<b>ESS 231 (3) and 232 (1)</b>	<b>ME 321 (3) FA, SP, SU</b> Prereq- ME 202 with C or better and Math 142/148 with C better	<b>BSE 321 (3) SP</b> Prereq- BSE 221 or ENVE 200	
Fall 17 hours	<b>Philosophy 244 (3) FA, SP</b> <b>Vol Core- Arts &amp; Humanities</b>	<b>BSE 326 (3) FA, SP</b> Prereq- EF 152 or 158 and Math 241 or 247	<b>BSE 351 (3) FA, SP</b> Prereq- EF 152 or 158	<b>Stats 251 (3) FA, SP, SU or IE 200 (3) FA, SP</b> Prereq- Math 142 or 148	<b>English 360 (3) (WC) FA, SP</b> Prereq- English 102, 112, 132, or 298 Minimum level- junior	<b>Math 200 (2) FA, SP</b>
Spring 15 hours	<b>BSE 411 or 417 (3) SP</b> Prereq- ME 231 and 321 with grades of C or better	<b>BSE 426 or 427 (3) SP</b> Prereq-BSE 326 with grade of C or better	<b>BSE 431 or 437 (3) SP</b> Prereq- BSE 321 with grade of C or better	<b>BSE 451 or 457 (3) SP</b> Prereq- BSE 351 grade of C or better and Math 231 or 237	<b>*BSE 464 (3) SP</b> Prereq- CHEM 132-133 or 138 (CHEM 122-123 and BSE 231) STAT 201 or STAT 251	
Fall 14 hours	<b>Environmental Soil Science 120 (3) FA</b> Global Citizenship International (GCI)	<b>*Ecological System Elective (3) FA, SP, SU</b> See advisor for approved choices	<b>BSE 400 (2) FA</b> Prereq- Three of BSE 411/417, BSE 426/427, 431/437, or 451/457 Coreq- BSE 404 and 444	<b>BSE 444 (3) FA</b> Prereq- Three of BSE 411/417, BSE 426/427, 431/437, or 451/457 Coreq- BSE 400 and 404	<b>BSE 404 (3) (OC) FA</b> Prereq- Three of BSE 411/417, 426/427, BSE 431-437, or 451/457 Coreq- BSE 400 and 444	
Spring 15 hours	<b>Vol Core (3) FA, SP, SU</b> Expanded Perspectives- choose from AH, AAH, GCUS, GCI, or SS	<b>Geography 121 or Sociology 260 or 360 or 361 (3) FA, SP, SU</b> Social Science (SS)	<b>Vol Core (3) FA, SP, SU</b> Expanded Perspectives- choose from AH, AAH, GCUS, GCI, or SS	<b>BSE 402 (5) (EI) SP</b> Prereq- BSE 400 and 404 and 444 Co-req- BSE 403	<b>BSE 403 (1) (AOC) SP</b> Prereq- BSE 400 and 404 and 444 Co-req BSE 402	

**BSE Graduation requirements:** a) achieve at least a 2.0 GPA in all BSE courses; b) only one BSE course with a grade of D+, or D may be used toward graduation; c) no BSE course with a grade of D- may be used for graduation; d) achieve at least a 2.0 GPA in the required math courses.

Students also have opportunities for an Honors Concentration. See the Undergraduate Catalog for details and requirements.

Volunteer Core courses highlighted in light orange.