

Biosystems Engineering Catalog 2025
Integrated Systems Concentration

Fall 16 hours	Math 132 or 141 or 147 (3-4) (QR) FA,SP,SU Math 132 Prereq- Math 131 Math 141 Prereq- ACT Math 28 or SAT Math 660	EF 142 or 151 or 157 (4) (EI) FA, SP 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 C.OSC 101/102	EF 105 (1) FA, SP Coreq- EF 152 or 158	Chem 122(3) and 123(1) or 128 (4)(NS) FA, SP, SU Prereq-Math 119; recommended background in Math 131	English 101 or 131 (3) FA, SP, SU 101 Standard; 131 English Second Language	
Spring 17 hours	Math 142 or 148 (4) (QR) FA, SP, SU Prereq- Math 132 or 141 or 147	EF 152 or 158 (4) (NS and EI) FA, SP, SU Prereq-EF 142/151/157 with C or higher Coreq- Math 142 or 148 and EF 105 or C.OSC 101 or 102	ME 202 (2) FA, SP, SU Coreq- EF 152 or 158 and Math 142 or 148	Vol Core (3) FA, SP, SU Global Citizenship United States (GCUS)	English 102 or 112 or 298 or 132 (3) FA, SP, SU see catalog for prereqs	BSE 104 (1) SP Coreq- EF 142 or EF 151 or 157
Fall 17 hours	Math 241 or 247 (4) FA, SP, SU Prereq- Math 142 or 148	ME 231 (3) FA, SP, SU Prereq- EF 152 or 158 and ME202 with grades of C or better	ME 331 (3) FA, SP, SU Coreq- Math 241 or 247	BSE 201 (1) FA	BSE 221 (3) FA Prereq- Chem 122 and 123 or 128 Coreq- EF 152 or 158	BSE 231 (3) FA Prereq- Chem 122 & 123 or 128 and Math 132 or 141 or 147
Spring 16 hours	Math 231 or 237 (3) FA, SP, SU Prereq- Math 142 or 148	Biology 160 or 168 (3) (NS) FA, SP, SU Coreq- Chemistry 122 and 123 or 128	ESS 231 (3) and 232 (1)	ME 321 (3) FA, SP, SU Prereq- ME 202 with C or better and Math 142/148 with C better	BSE 321 (3) SP Prereq- BSE 221 or ENVE 200	
Fall 17 hours	Philosophy 244 (3) FA, SP Vol Core- Arts & Humanities	BSE 326 (3) FA, SP Prereq- EF 152 or 158 and Math 241 or 247	BSE 351 (3) FA, SP Prereq- EF 152 or 158	Stats 251 (3) FA, SP, SU or IE 200 (3) FA, SP Prereq- Math 142 or 148	English 360 (3) (WC) FA, SP Prereq- English 102, 112, 132, or 298 Minimum level- junior	Math 200 (2) FA, SP
Spring 15 hours	BSE 411 or 417 (3) SP Prereq- ME 231 and 321 with grades of C or better	BSE 426 or 427 (3) SP Prereq-BSE 326 with grade of C or better	BSE 431 or 437 (3) SP Prereq- BSE 321 with grade of C or better	BSE 451 or 457 (3) SP Prereq- BSE 351 grade of C or better and Math 231 or 237	*Technical Elective (3) FA, SP, SU	
Fall 14 hours	Vol Core (3) FA, SP, SU Social Science (SS)	*Technical Elective (3) FA, SP, SU	BSE 400 (2) FA Prereq- Three of BSE 411/417, BSE 426/427, 431/437, or 451/457 Coreq- BSE 404 and 444	BSE 444 (3) FA Prereq- Three of BSE 411/417, BSE 426/427, 431/437, or 451/457 Coreq- BSE 400 and 404	BSE 404 (3) (OC) FA Prereq- Three of BSE 411/417, 426/427, BSE 431-437, or 451/457 Coreq- BSE 400 and 444	
Spring 15 hours	Vol Core (3) FA, SP, SU Expanded Perspectives- choose from AH, AAH, GCUS, GCI, or SS	Vol Core (3) FA, SP, SU Global Citizenship International (GCI)	Vol Core (3) FA, SP, SU Expanded Perspectives- choose from AH, AAH, GCUS, GCI, or SS	BSE 402 (5) (EI) SP Prereq- BSE 400 and 404 and 444 Co-req- BSE 403	BSE 403 (1) (AOC) SP Prereq- BSE 400 and 404 and 444 Co-req BSE 402	

***Technical Electives-** Note that some electives have required prerequisites. See individual course descriptions for specific information. BSE 464, 475, 525, 543; CBE 475, 481; CSAS 345, 355, 414, 424, 432, 434, 452, 462, 474; CE 381, 430, 485; CHEM 260 or 268, 360 or 368; ENVE 511, 512,513, 515, 516, 525, 526, 527, 530, 532, 533, 544, 558, 561, 574; ESS 334, 434, 442, 444, 454, 462; Geog 311, 312; Geol 485; IE 304; Math 300, 403, 411, 431; ME 363 or 367, 366, 391 or 397, 405, 451, 466, 472.

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.