

Biosystems Engineering Catalog 2024 Integrated Systems Concentration

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