# Bachelor of Science in Industrial Engineering
## 2018-2019 Catalog

<table>
<thead>
<tr>
<th>Course Area</th>
<th>Credits Required</th>
<th>Courses</th>
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</table>
| 1. Communications (6 cr.) |  | SP CM 212 Fundamentals of Public Speaking (3)  
|  |  | ENGL 314 Technical Communication (3) |
| 2. Social Science & Humanities (12 cr.)* |  | U.S. Diversity (3)  
|  |  | International Perspectives (3)  
|  |  | (3)  
|  |  | (3)  
| Note: Six credits in the SSH area must be 200-level or above, and six credits must form a sequence of prerequisite or related courses. |
| 3. Basic Program (27 cr.) |  | CHEM 167 General Chemistry for Engineering Students (4)  
|  |  | or CHEM 177 General Chemistry and Chemistry Lab (4)  
|  |  | ENGL 150 Critical Thinking and Communication (3)  
|  |  | ENGL 250 Written, Oral, Visual, & Electronic Composition (3)  
|  |  | ENGR 101 Engineering Orientation (R)  
|  |  | I E 148 Information Engineering (3)  
|  |  | LIB 160 Information Literacy (1)  
|  |  | MATH 165 Calculus I (4)  
|  |  | MATH 166 Calculus II (4)  
|  |  | PHYS 221 Introduction to Classical Physics I (5)  
| 4. Math and Physical Science (17 cr.) |  | MATH 265 Calculus III (4)  
|  |  | MATH 267 Elementary Differential Equations & Laplace Transforms (4)  
|  |  | PHYS 222 Introduction to Classical Physics II (5)  
|  |  | STAT 231 Probability & Statistical Inference for Engr (4)  
| 5. Industrial Engineering Core (34 cr.) |  | I E 222 Design & Analysis Methods for System Improvements (3)  
|  |  | I E 248 Engineering System Design, Manufacturing Processes & Specifications (3)  
|  |  | I E 271 Applied Ergonomics & Work Design (3)  
|  |  | I E 305 Engineering Economic Analysis (3)  
|  |  | I E 312 Optimization (3)  
|  |  | I E 341 Production Systems (3)  
|  |  | I E 348 Solidification Processes (3)  
|  |  | I E 361 Statistical Quality Assurance (3)  
|  |  | I E 413 Stochastic Modeling, Analysis & Simulation (4)  
|  |  | I E 441 Industrial Engineering Design (3)  
|  |  | I E 448 Manufacturing Systems Engineering (3)  
| 6. Other Remaining Courses (26 cr.) |  | MAT E 273 Principles of Materials Sci & Engineering (3)  
|  |  | E M 274 Engineering Statics (3)  
|  |  | E E 442 Introduction to Circuits and Instruments (2)  
|  |  | M E 231 Engineering Thermodynamics (3)  
|  |  | Focus Electives (6)  
|  |  | Management Elective (3)  
|  |  | Engineering Topic Electives (6)  
| 7. Required Seminar |  | I E 101 Industrial Engineering Profession (R)  

Last updated 5/22/2018 (EMG)