

# INDUSTRIAL ENGINEERING

Courses highlighted below are available at Charleston Southern  
Curriculum Example\*

## FRESHMAN YEAR

_____ 4 CH 1010 General Chemistry <sup>1</sup> _____ 3 ENGL 1030 Accelerated Composition <sup>1</sup> _____ 2 ENGR 1020 Engineering Discipline and Skills <sup>2</sup> _____ 4 MATH 1060 Calculus of One Variable I <sup>4</sup> _____ 3 Gen Ed <sup>3</sup> 16	_____ 3 ENGR 1410 Programming and Problem Solving <sup>1,2</sup> _____ 4 MATH 1080 Calculus of One Variable II <sup>1</sup> _____ 3 PHYS 1220 Physics with Calculus I <sup>4</sup> _____ 3 Gen Ed <sup>3</sup> _____ 4 Lab Science Requirement <sup>4</sup> 17
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## SOPHOMORE YEAR

_____ 3 CE 2010 Statics <sup>5</sup> _____ 2 ENGR 2080 Engr. Graphics & Machine Design <i>OR</i> 2 ENGR 2090 Intro. to Engr./Computer Graphics <i>OR</i> 2 ENGR 2100 Computer-Aided Design & Engr. Graphics _____ 4 MATH 2060 Calculus of Several Variables _____ 3 MATH 3110 Linear Algebra _____ 4 CPSC 1010 Computer Science I <sup>6</sup> 16	_____ 3 IE 2100 Design & Analysis of Work Systems _____ 4 IE 3010 Systems Design I _____ 3 IE 3600 Industrial Apps of Prob./Stat. I _____ 3 IE 3800 Deterministic Operations Research _____ 4 CPSC 1020 Computer Science II <sup>6</sup> 17
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## JUNIOR YEAR

_____ 3 IE 3610 Industrial Apps of Prob./Stat. II _____ 3 IE 3810 Probabilistic Operations Research _____ 3 IE 3840 Engineering Economic Analysis _____ 3 IE 4400 Decision Support Systems in IE _____ 3 PHYS 2210 Physics with Calculus II _____ 1 PHYS 2230 Physics Laboratory II <sup>7</sup> 16	_____ 3 IE 3140 Seminar in Industrial Engineering _____ 3 IE 3860 Production Planning and Control _____ 3 IE 4610 Quality Engineering _____ 3 IE 4650 Facilities Planning and Design _____ 4 IE 4820 Systems Modeling _____ 3 Oral Communication Requirement <sup>8</sup> 17
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## SENIOR YEAR

_____ 3 IE 4880 Human Factors Engineering _____ 4 CPSC 2120 Algorithms and Data Structures <sup>6</sup> _____ 3 Electrical Engineering Requirement <sup>11</sup> _____ 3 Ethics & Professional Practice Requirement <sup>9</sup> _____ 3 Gen Ed <sup>3</sup> 16	_____ 4 IE 4670 Systems Design II _____ 3 MSE 2100 Intro. to Materials Science _____ 3 Management Requirement <sup>10</sup> _____ 3 Gen Ed <sup>3</sup> 13
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**128 Total Semester Hours**

**Footnotes:** All Clemson engineering students begin in our General Engineering program and move into their specified major once the departmental standards are completed. Clemson courses ENGL 1030, MATH 1060 and 1080, PHYS 1220, CH 1010, ENGR 1020 and ENGR 1410/or CHE 1300 must all be completed with a "C" or higher before declaring and starting courses in your engineering major.

- <sup>1</sup> This course must be passed with a grade of C or better.
  - <sup>2</sup> The combination of ENGR 1070, ENGR 1080 and ENGR 1090, each with a grade of C or higher; or the combination of CHE 1300 plus one of CPSC 1010, CPSC 1110 or CPSC 1610, each with a grade of C or higher, will also satisfy this requirement; ENGR 1070, ENGR 1080 and ENGR 1090 may be substituted for ENGR 1410; ENGR 1050 and ENGR 1060 may be substituted for ENGR 1020
  - <sup>3</sup> See General Education Requirements. Students must complete a minimum of 12 credits of Arts and Humanities and Social Science courses. No course that satisfies another degree requirement in the curriculum may be used to satisfy this requirement. However, six of these credits may also satisfy the Cross-Cultural Awareness and Science and Technology in Society General Education Requirements.
  - <sup>4</sup> Select BIOL 1030/BIOL 1050; BIOL 1040/BIOL 1060; BIOL 1100; BIOL 1200/BIOL 1220; BIOL 1200/BIOL 1230; CH 1020; or GEOL 1010/GEOL 1030.
  - <sup>5</sup> ME 2010 may be substituted.
  - <sup>6</sup> CPSC 1060 and CPSC 1070 may be substituted for CPSC 1010 and CPSC 1020.
  - <sup>7</sup> PHYS 1240 may be substituted.
  - <sup>8</sup> See General Education Requirements. COMM 1500 is recommended.
  - <sup>9</sup> Select from LAW 3220, PHIL 1030, PHIL 3440, PHIL 3450, or PHIL 3460
  - <sup>10</sup> Select from ACCT 2010, ACCT 2020, AS 3090, ELE 4000, MGT 2010, MGT 3070, MGT 4110, MKT 4210, or ML 3010
  - <sup>11</sup> Select either ECE 2020 and ECE 2110; or ECE 2070 and ECE 2080
- \*See catalog for current curriculum at [catalog.clemson.edu](http://catalog.clemson.edu)

General Education Requirements					
LIT	Non-Lit	SS1	SS2	CCA	STS

**Comments:**