

# INDUSTRIAL ENGINEERING

Courses highlighted are available at Francis Marion  
Curriculum Example\*

## FRESHMAN YEAR

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

## SOPHOMORE YEAR

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

## JUNIOR YEAR

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

## SENIOR YEAR

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

**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
Other						
LIFE	Palmetto Fellows	Honors	Athlete	RiSE	ROTC	Med School

**Comments:**