## Environmental Engineering

**Courses highlighted below are available at Francis Marion University**

**Curriculum Example**

### FRESHMAN YEAR

- 4 CH 1010 General Chemistry
- 3 ENGL 1030 Accelerated Composition
- 2 ENGR 1020 Engineering Discipline and Skills
- 1 Gen Ed
- 4 MATH 1060 Calculus of One Variable I
- 3 Gen Ed

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16

### SOPHOMORE YEAR

- 3 BIOL 1030 General Biology
- 1 BIOL 1050 General Biology Lab
- 3 CE 2010 Statics
- 3 EES 2010 Environmental Engineering Fundamentals I
- 4 MATH 1200 Calculus of Several Variables
- 3 PHYS 1220 Physics with Calculus I

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17

### JUNIOR YEAR

- 2 EES 3030 Water Treatment Systems
- 2 EES 3040 Wastewater Treatment Systems
- 1 EES 3050 Water and Wastewater Treatment Lab
- 3 MATH 3020 Statistics for Science and Engineering
- 4 MATH 3060 Calculus of Several Variables
- 3 PHYS 2210 Physics with Calculus II

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17

### SENIOR YEAR

- 3 EES 4300 Air Pollution Engineering
- 1 EES 4500 Env Engr Senior Seminar
- 3 EES 4800 Environmental Risk Assessment
- 3 EES 4860 Environmental Sustainability
- 2 Engr Econ Requirement
- 3 Gen Ed

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15

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127 Total Semester Hours

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**Footnotes:**

1 ENGR 1070, ENGR 1080 and ENGR 1090 may be substituted for ENGR 1410; ENGR 1050 and ENGR 1060 may be substituted for ENGR 1020

2 HIST 1240 satisfies three credit hours of the social science requirement and the Science and Technology in Society General Education requirement. If a student is unable to enroll in the second semester of the freshman year, this course may be taken at another time.

3 BIOL 1100 may be substituted for BIOL 1030 and BIOL 1050; BIOL 1100 is five credits.

4 CH 2230 may be substituted.

5 ENGR 2080 may be substituted.

6 See Policy on Humanities and Social Sciences for Engineering Curricula. Three of these credit hours must also satisfy the Cross-Cultural Awareness General Education requirement. Students are encouraged (but not required) to take PHIL 3450 - Environmental Ethics to fulfill the non-literature humanities requirement.

7 PES 2020 may be substituted for GEOL 1010 and GEOL 1030.

8 Select CE 3520 or IE 3840.

9 Select from BCHM 3050, BE 3220, BE 4150, BE 4220, BE 4240, BE 4640, BE 3120, BIOL 4100, BIOL 4430, BIOL 4440, CE 2060, CE 2550, CE 3210, CE 3310, CE 3420, CE 4430, CE 4470, CE 4820, CH 3300, CH 3310, CH 4130, ECE 2070, ECE 2080, EES 3000, EES 3010, EES 4000, EES 4100, EES 4110, EES 4120, EES 4370, EES 4910, EES 4950, ENSP 4000, GEOL 2700, GEOL 3000, GEOL 3180, GEOL 4210, GEOL 4820, ME 4260, MICR 3050, MICR 4100, MATH 3110, MATH 3650, MATH 3430, PES 4850, PHYS 2400, PHYS 2450, PHYS 4200.

**EES 2010 & EES 2020 are only taught once per year**

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### General Education Requirements

<table>
<thead>
<tr>
<th>LIT</th>
<th>Non-Lit</th>
<th>SS1</th>
<th>SS2</th>
<th>CCA</th>
<th>STS</th>
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<td>Honors</td>
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<td>RISE</td>
<td>ROTC</td>
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</tbody>
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**Comments:**