# Suggested 4-Year Academic Flowchart

## B.S. in Environmental Earth and Soil Sciences

**2015-2017 Catalog**

### FRESHMAN

<table>
<thead>
<tr>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
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</table>
| Introductory Soil Science  
SS 121 (4) |
| Introduction to Cultural Geography  
GEOL 102 (4)  
(GEOL 101 or 102)  
[GE Area D3]
| Calculus I course:  
MATH 161 or 141 (4)  
* (B1) |
| Intro to Earth Science  
ERSC 144 (4)  
* (B2/B4) |
| General Chemistry for Agriculture & Life Science I  
CHEM 127 (4)  
* (B3/B4) |
| Careers in Natural Resources  
Mgmt & Env Sci  
ERSC/NR 140 (1) |
| Expository Writing  
ENGL 133 or 134 (4)**  
* (A1) |
| Oral Communication  
COMS 101 or 102 (4)**  
* (A2) |
| Reasoning, Argumentation, & Writing  
ENGL 135 (4)**  
* (A3)  
(Completion of GE A5 with a C+ or better)  
Can be taken anytime between Winter of Freshman and Winter of Sophomore Years. |
| Total Yearly Units: 45-49 |

### SOPHOMORE

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<th>Fall</th>
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| Physical Geology  
GEOL 201 (3)  
(MATH 119 or 118)  
** (B3/B4) |
| Physical Geology Lab  
GEOL 241 (1)  
(GEOL 102 or 201) |
| Calculus II course:  
MATH 161 or 141 (4)  
* (B2 & B4) |
| Intro to Earth Science  
BER 121 (4)  
* (B2 & B4) |
| General Botany  
BOT 121 (4)  
* (B3/B4) |
| General Chemistry for Agriculture & Life Science II  
CHEM 128 (4)  
(Completion of GE A5 with a C+ or better) |
| Soil Science  
SS 221 (4)  
* (B3/B4) |
| College Physics  
PHYS 121 (4) or PHYS 141 (4) |
| Soil Erosion & Water Conservation  
ERSC 202 (4)  
* (B3/B4) |
| Soil Sorption & Plant Nutrition  
SS 221 (4)  
* (B3/B4) |
| Applications in GES  
NR/LA 218 (3) or GEOG 318 (4)  
* (B3/B4) |
| Racks & Minerals  
ERSC 323 (4)  
* (B3/B4) |
| Minor or CEA  
(4)** |
| Total Yearly Units: 45-49 |

### JUNIOR

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</table>
| Survey of Organic Chemistry  
CHEM 312 (5)  
(GEOL 111, 124, or 127) |
| Undergraduate Seminar  
ERSC 383 (2)  
* (Jr standing or Instr. consent) |
| Human Impact on the Earth  
ERSC/GEOG 333 (4)  
* (Jr standing or Instr. consent) |
| Applied Statistics for the Life Sciences  
STAT 218 (4)  
* (B3/B4) |
| Ecology of Resource Utilization  
GEOG 301 (4)  
* (Jr standing or Instr. consent) |
| Introduction to Cultural Geography  
GEOG 301 (4)  
* (Jr standing or Instr. consent) |
| Geography of Resource Utilization  
GEOG 302 (4)  
* (Jr standing or Instr. consent) |
| Minor or CEA  
(4)** |
| Total Yearly Units: 43-48 |

### SENIOR

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<th>Fall</th>
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| Environmental Geology  
GEOL 415 (4)  
(GEOL 241 & ERSC 223) |
| Environmental Soil & Water Chemistry  
CHEM 432 (5)  
(GEOL 111, 124, or 127) |
| Soil Ecology  
SS 422 (4)  
* (GEOL 111, 124, or 127) |
| Senior Project  
Choose one:  
ERSC / NR 476, or  
ERSC / NR 477, or  
ERSC / NR 478, or  
ERSC / NR 479  
* (GE Area A; ERSC 363 or NR 396 or 326; Instr. consent) |
| Minor or CEA  
(4)** |
| Total Yearly Units: 43 |

### Total Yearly Units

- **45-49**
- **43-48**
- **43**
- **45**
- **180-181**

### Notes:

**Most General Education Courses Can Be Taken in Any Order as Long as Prerequisites Are Met**

* Refer to current catalog for prerequisites.

**One course from each of the following GE areas must be completed: A1, A2, A3, C1, C2, C3, C4, C1-C5 elective, D1, D2, D4, and F. C4 and F should be taken only after Junior standing is reached (90 units). Refer to online catalog for GE course selection, United States Cultural Pluralism (USCP) and Graduation Writing Requirement (GWR). USCP requirement can be satisfied by some (but not all) courses within GE categories: C3, C4, D1, D3, D4, D5 or F. Refer to online catalog for GE course selection, United States Cultural Pluralism (USCP) and Graduation Writing Requirement (GWR). USCP requirement can be satisfied by some (but not all) courses within GE categories: C3, C4, D1, D3, D4, D5 or F.**

**Select 32 units in Career Elective Area (CEA) or minor. Note: Depending on courses chosen, GE D2, D5, and/or F may be satisfied. If so, free electives will be needed to reach 180 units.**

### Legend:

- **Course Title**
- **Major**
- **(Prerequisite)**
- **Course # (Units)**
- **General Ed. (48)**
- **[GE Area]**