

## B.S. EARTH SYSTEM SCIENCE DEGREE REQUIREMENTS

### **Basic Requirements:**

A. One course from the following:

ESS 1 \_\_\_\_\_ 3 \_\_\_\_\_ 5 \_\_\_\_\_

All of the following courses:

ESS 51 \_\_\_\_\_ 53 \_\_\_\_\_ 55 \_\_\_\_\_  
ESS 114 **OR** 115 \_\_\_\_\_ 116 \_\_\_\_\_ 192 \_\_\_\_\_

Math 2A \_\_\_\_\_ 2B \_\_\_\_\_ Stats 7 \_\_\_\_\_

Chem 1A \_\_\_\_\_ 1B \_\_\_\_\_ 1C \_\_\_\_\_; 1LC \_\_\_\_\_ 1LD \_\_\_\_\_ **OR**  
Chem H2A \_\_\_\_\_ H2B \_\_\_\_\_ H2C \_\_\_\_\_; H2LA \_\_\_\_\_ H2LB \_\_\_\_\_ H2LC \_\_\_\_\_

Physics 3A \_\_\_\_\_ 3B \_\_\_\_\_ 3C \_\_\_\_\_; 3LB \_\_\_\_\_ 3LC \_\_\_\_\_ **OR**  
Physics 7C \_\_\_\_\_ 7E \_\_\_\_\_; 7LC \_\_\_\_\_

B. **Additional Electives** (seven courses from the following; at least 4 must be ESS courses)

(ESS)

(ESS)

(ESS)

(ESS)

**Earth System Science:** Any four-unit upper-division course (100-199) except 114, 116, 198 or H198;  
(ESS 199/H199 may be counted only once)

**Chemistry:** 51A, 51B/LB, 51C/LC, 141

**Physics:** 115A

**Mathematics:** 2D, 3A, 3D, 105A, 112A, 115

**Mechanical and Aerospace Engineering (MAE):** 91, 130A, 164

**Civil and Environmental Engineering (CEE):** 162, 171, 172, 176, 178

**Biological Sciences:** 93, 94, 98, D105, E106, E120, E150, E179, E179L, E189

**Public Health:** 161, 163, 167, 171, 172, 173

**Urban Planning and Public Policy (UPPP):** 133, 139, 145

**Computing Skills (one of the following may be counted toward the degree):** ICS 31, EECS10, MAE 10,  
Physics 53, or another approved programming course

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### **Optional Specialization in Atmospheric Science**

(Courses may be used to fulfill electives in section B, where overlap exists.)

Three courses from the following: ESS 122 \_\_\_\_\_ 124 \_\_\_\_\_ 142 \_\_\_\_\_ 198/H198/199/H199A-B-C \_\_\_\_\_

(ESS 198/H198/199/H199A-B-C must be focused on atmospheric research and may be counted only once)

**AND One advanced tools course selected from the following:** ESS 118 \_\_\_\_\_ 134 \_\_\_\_\_ 138 \_\_\_\_\_

### **Optional Specialization in Oceanography**

(Courses may be used to fulfill electives in section B, where overlap exists.)

Three courses from the following: ESS 130 \_\_\_\_\_ 144 \_\_\_\_\_ 148 \_\_\_\_\_ 171 \_\_\_\_\_ 198/H198/199/H199A-B-C \_\_\_\_\_

(ESS 198/H198/199/H199A-B-C must be focused on oceanographic research and may be counted only once)

**AND One advanced tools course selected from the following:** ESS 118 \_\_\_\_\_ 138 \_\_\_\_\_

### **Optional Specialization in Hydrology and Terrestrial Ecosystems**

(Courses may be used to fulfill electives in section B, where overlap exists.)

Three courses from the following: ESS 132 \_\_\_\_\_ 133 **OR** 140 \_\_\_\_\_ 156 \_\_\_\_\_ 198/H198/199/H199A-B-C \_\_\_\_\_

(ESS 198/H198/199/H199A-B-C must be focused on terrestrial research and may be counted only once)

**AND One advanced tools course selected from the following:** ESS 118 \_\_\_\_\_ 134 \_\_\_\_\_ 138 \_\_\_\_\_

### **Optional Concentration in Geosciences Education with Secondary Teaching Certification**

*This concentration allows students pursuing the B.S. in Earth System Science to earn a bachelor's degree and complete the required course work and field experience for a California Preliminary Single Subject Teaching Credential at the same time. In addition to the major requirements listed above, **all of the following must be completed:***

ESS 7 **OR** 140 \_\_\_\_\_; Physics 20A **OR** 20B \_\_\_\_\_; Physical Sciences 5 \_\_\_\_\_ 105 \_\_\_\_\_;

Chemistry/Physics 193 \_\_\_\_\_; LPS 60 \_\_\_\_\_

Education 55 \_\_\_\_\_ 109 \_\_\_\_\_ 143AW \_\_\_\_\_ 143BW \_\_\_\_\_ 148 \_\_\_\_\_ and two quarters of Education 158 \_\_\_\_\_

**UCI SCHOOL OF PHYSICAL SCIENCES  
UNIVERSITY / GENERAL EDUCATION REQUIREMENTS**

NAME \_\_\_\_\_ STUDENT ID \_\_\_\_\_

Other Colleges \_\_\_\_\_

**UNIVERSITY REQUIREMENTS:**

English (UC ELW) \_\_\_\_\_ American History \_\_\_\_\_ Institutions \_\_\_\_\_

**RESIDENCY REQUIREMENTS:**

36 of the final 45 units must be completed at UCI \_\_\_\_\_

**UNIT REQUIREMENT:** 180 units are required for graduation \_\_\_\_\_

**GPA REQUIREMENT AND STANDING:**

Overall GPA of 2.0 \_\_\_\_\_ GPA in major at least a 2.0 \_\_\_\_\_

GPA in upper-division major classes at least a 2.0 \_\_\_\_\_

**TRANSFER STUDENTS:**

Partial IGETC \_\_\_\_\_

Full IGETC \_\_\_\_\_

cert received? yes \_\_\_\_\_ no \_\_\_\_\_

| General Education (GE) Requirements   | Fall              | Winter            | Spring          |
|---|-------------------|-------------------|-----------------|
| <b>I. Writing (2 lower-division, 1 upper-division)</b> <input type="checkbox"/>       |                   |                   |                 |
| 1.  | <b>Freshman</b>   |                   |                 |
| 2.  | Math 2A           | Math 2B           | Stats 7         |
| 3.  | Chem 1A           | Chem 1B           | Chem 1C, 1LC    |
|   | ESS 1             | GEN ED            | GEN ED          |
|   | ESS 45            | GEN ED            | GEN ED          |
| <b>II. Science &amp; Technology (any 3)</b> <input type="checkbox"/>                  |                   |                   |                 |
| 1.  | <b>Sophomore</b>  |                   |                 |
| 2.  | ESS 51            | ESS 53            | ESS 55          |
| 3.  | Physics 3A        | Physics 3B, 3LB   | Physics 3C, 3LC |
|   | Chem 1LD          | GEN ED            | GEN ED          |
|   | GEN ED            | GEN ED            | GEN ED          |
| <b>III. Social &amp; Behavioral Sciences (any 3)</b> <input type="checkbox"/>         |                   |                   |                 |
| 1.  | <b>Junior</b>     |                   |                 |
| 2.  | ESS 114           | ESS 116           | ESS Elective    |
| 3.  | ESS 192           | Approved Elective | ESS Elective    |
|   | GEN ED/ Elective  | GEN ED/ Elective  | Elective        |
|   | Elective          | Elective          | Elective        |
| <b>IV. Arts &amp; Humanities (any 3)</b> <input type="checkbox"/>                     |                   |                   |                 |
| 1.  | <b>Senior</b>     |                   |                 |
| 2.  | ESS Elective      | ESS Elective      | ESS Elective    |
| 3.  | Approved Elective | Elective          | Elective        |
|   | Elective          | Elective          | Elective        |
|   | Elective          | Elective          | Elective        |
| <b>V. Quantitative, Symbolic and Computational Reasoning</b> <input type="checkbox"/> |                   |                   |                 |
| Va.   |                   |                   |                 |
| Vb.   |                   |                   |                 |
| Va or Vb.   |                   |                   |                 |
| <b>VI. Language Other than English</b> <input type="checkbox"/>                       |                   |                   |                 |
| 1C or equivalent  |                   |                   |                 |
|   |                   |                   |                 |
| <b>VII. Multicultural Studies (one course)</b> <input type="checkbox"/>               |                   |                   |                 |
|   |                   |                   |                 |
| <b>VIII. International/Global Issues (one course)</b> <input type="checkbox"/>        |                   |                   |                 |
|   |                   |                   |                 |

(sample program, your schedule may differ greatly)

ESS Department:

<http://www.ess.uci.edu>

Research Opportunities:

<http://www.ess.uci.edu/undergradrespro>

Course offerings:

<http://www.ess.uci.edu/academics/courses/course.descriptions.php>

For enrollment questions:

<http://www.ess.uci.edu/academics/undergraduate>