

## 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, 115, 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, 173

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

Computing Skills (one of the following may be counted toward the degree): ICS 31, EECS 10, 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	
<b>I. Writing (2 lower-division, 1 upper-division)</b>	<input type="checkbox"/>
1.	
2.	
3.	
<b>II. Science &amp; Technology (any 3)</b>	<input type="checkbox"/>
1.	
2.	
3.	
<b>III. Social &amp; Behavioral Sciences (any 3)</b>	<input type="checkbox"/>
1.	
2.	
3.	
<b>IV. Arts &amp; Humanities (any 3)</b>	<input type="checkbox"/>
1.	
2.	
3.	
<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"/>

Fall	Winter	Spring
<b>Freshman</b>		
Math 2A	Math 2B	Stats 7
Chem 1A	Chem 1B	Chem 1C, 1LC
ESS 1	GEN ED	GEN ED
ESS 45	GEN ED	GEN ED
<b>Sophomore</b>		
ESS 51	ESS 53	ESS 55
Physics 3A	Physics 3B, 3LB	Physics 3C, 3LC
Chem 1LD	GEN ED	GEN ED
GEN ED	GEN ED	GEN ED
<b>Junior</b>		
ESS 114	ESS 116	ESS Elective
ESS 192	Approved Elective	ESS Elective
GEN ED/ Elective	GEN ED/ Elective	Elective
Elective	Elective	Elective
<b>Senior</b>		
ESS Elective	ESS Elective	ESS Elective
Approved Elective	Elective	Elective
Elective	Elective	Elective
Elective	Elective	Elective

(sample program, your schedule may differ greatly)

ESS Department:

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

Research Opportunities:

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

Course offerings:

<http://www.ess.uci.edu/undergrad/coursesoffered> For

Enrollment questions:

<https://www.ess.uci.edu/academics>