Earth System Sciences B.S. - Human Dimensions - Societal Impacts Concentration

Earth System Science, Human Dimensions and Societal Impacts Concentration, BS Requirements:

- Earth System Science, Human Dimensions and Societal Impacts Concentration, BS degree requires 128 credit hours.
- 39 of 128 credit hours must be taken at 300 level or higher (39 credits includes courses taken at the 300+ level in major, minor (if chosen), Pre professional area and electives).
- 12 credit hours of 300 level and above must be taken in the major--or 6 credit hours in the major and 6 credit hours in the minor (if chosen).
- 12 of the last 18 credit hours must be taken at UAH, with an overall 25% of coursework taken at UAH.
- Unless otherwise noted a C- or better is required for all College of Science prerequisite courses.
- No more than 64 credit hours from a two-year college can be applied toward a UAH degree.
- For graduation application instructions, see here (http://catalog.uah.edu/undergrad/policies-procedures/application-graduation).

Degree Requirements

<table>
<thead>
<tr>
<th>Freshman Composition</th>
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<tbody>
<tr>
<td>EH 101 FRESHMAN COMPOSITION</td>
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<td>EH 102 FRESHMAN COMPOSITION</td>
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<table>
<thead>
<tr>
<th>Humanities and Fine Arts</th>
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<tr>
<td>Fine Arts: Choose one</td>
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<tr>
<td>ARH 100 ARH SURV: ANCIENT-MEDIEVAL</td>
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<td>ARH 101 ARH SURV: RENAISSANCE-MODERN</td>
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<td>ARH 103 ARH SUR: NON-WESTERN TRADITIONS</td>
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<td>ARS 160 DRAWING: FOUNDATIONS</td>
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<td>TH 122 THEATRE APPRECIATION</td>
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<td>MU 100 INTRO TO MUSIC LITERATURE</td>
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<table>
<thead>
<tr>
<th>Literature: Choose one</th>
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<tr>
<td>EH 207 READINGS LITERATURE/CULTURE I</td>
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<tr>
<td>or EH 242 MYTHOLOGY</td>
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<tr>
<td>EH 208 READINGS LITERATURE/CULTURE 2</td>
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<tr>
<th>Speech</th>
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<td>CM 113 Intro to Rhetorical Communication</td>
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<thead>
<tr>
<th>Humanities, 2nd Fine Art or 2nd Literature: PHL 102 or PHL 150 required for all ESS degrees.</th>
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<tbody>
<tr>
<td>PHL 101 INTRODUCTION TO PHILOSOPHY</td>
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<td>PHL 102 INTRO TO ETHICS</td>
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<tr>
<td>PHL 150 TECH, SCIENCE &amp; HUMAN VALUES</td>
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<td>PHL 201 INTRODUCTION TO LOGIC</td>
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<thead>
<tr>
<th>Any WLC course 100 or 200 level</th>
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<td>WGS 200 INTRO WOMENS &amp; GENDER STUDIES</td>
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<table>
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<tr>
<th>2nd Literature</th>
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<tr>
<td>2nd Fine Art</td>
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<tr>
<th>Mathematics and Sciences</th>
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<tr>
<td>Mathematics: Choose one</td>
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<tr>
<td>MA 120 CALCULUS WITH APPLICATIONS</td>
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<td>MA 171 CALCULUS A</td>
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<th>Natural Sciences: Choose one sequence in Physics</th>
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<td>PH 101 &amp; PH 102 GENERAL PHYSICS I and II</td>
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<td>or</td>
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<td>PH 111 &amp; PH 114 GEN PHYSICS W/CALCULUS I and II</td>
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<tr>
<td>and</td>
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<tr>
<td>Course</td>
<td>Description</td>
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<tr>
<td>PH 112 &amp; PH 115</td>
<td>GEN PHYSICS W/CALC II and GENERAL PHYSICS LAB II</td>
</tr>
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</table>

### History and Social and Behavioral Sciences

**12**

**History:** Choose one

- HY 103 | WORLD HISTORY TO 1500
- HY 104 | WORLD HISTORY SINCE 1500
- HY 221 | UNITED STATES TO 1877
- HY 222 | UNITED STATES SINCE 1877

**Social and Behavioral Sciences:** Choose two. GY 105 and GY 110 strongly recommended

- ECN 142 | PRINC OF MACROECONOMICS
- ECN 143 | PRINC OF MICROECONOMICS
- PSC 101 | INTRO TO AMERICAN GOVERNMENT
- PSC 102 | INTRO TO COMPARATIVE POLITICS
- PSC 260 | INTRODUCTION TO INTERNATIONAL RELATIONS
- GY 105 | WORLD REGIONAL GEOGRAPHY
- GY 110 | PRINCIPLES OF HUMAN GEOGRAPHY
- GS 200 | GLOBAL SYSTEMS AND CULTURES
- SOC 100 | INTRO TO SOCIOLOGY
- SOC 102 | ANALYSIS OF SOCIAL PROBLEMS
- SOC 105 | INTRO CULTURAL ANTHROPOLOGY
- SOC 150 | SOCIOLOGICAL PERSP TECH & SCI
- PY 101 | GENERAL PSYCHOLOGY I
- PY 201 | LIFE-SPAN DEVELOPMENT

**2nd History or 3rd Social and Behavioral Science: Choose one**

- **2nd History**
- **3rd Social and Behavioral Science**

### Pre Professional

**26**

**Computer Science**

- CS 102 | INTRO TO C PROGRAMMING

**Technical Writing**

- EH 301 | TECHNICAL WRITING

**Ethics**

- PHL 102 | INTRO TO ETHICS
- or PHL 150 | TECH, SCIENCE & HUMAN VALUES

**Additional Lab Science: Choose one**

- CH 101 & CH 105 | INTRO TO CHEMISTRY and INTRO CHEMISTRY LAB
- or CH 121 & CH 125 | GENERAL CHEMISTRY I and GENERAL CHEMISTRY LAB I

**Additional Required Statistics: Choose two**

- MA/ST 281 | ELEMENTS OF STATISTICAL ANALYS
- PY 300 & 300L | PSYCHOLOGICAL STATISTICS and PSYCHOLOGICAL STATISTICS LAB
- SOC 303 | STATISTICS/SOCIAL SCIENCES

**Additional Social and Behavioral Sciences:** One course below may also count as 3rd Soc/Beh science above.

- SOC 100 | INTRO TO SOCIOLOGY
- or SOC 150 | SOCIOLOGICAL PERSP TECH & SCI
- SOC 105 | INTRO CULTURAL ANTHROPOLOGY
- PSC 101 | INTRO TO AMERICAN GOVERNMENT
### Earth System Science Core 24

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ESS 103</td>
<td>ENVIR EARTH SCI FND &amp; APPLICA</td>
</tr>
<tr>
<td>ESS 111</td>
<td>CLIMATE AND GLOBAL CHANGE</td>
</tr>
<tr>
<td>ESS 112</td>
<td>SEVERE &amp; HAZARDOUS WEATHER</td>
</tr>
<tr>
<td>ESS 301</td>
<td>INTRO TO EARTH &amp; ATMOSPHERIC PHYS</td>
</tr>
<tr>
<td>ESS 303</td>
<td>CLASSICAL &amp; PHYSICAL CAUSES OF CLIMATE &amp; GLOBAL CHANGE</td>
</tr>
<tr>
<td>ESS 370</td>
<td>INTRODUCTION TO REMOTE SENSING</td>
</tr>
<tr>
<td>ESS 498</td>
<td>UNDERGRAD CAPSTONE PROPOSAL</td>
</tr>
<tr>
<td>ESS 499</td>
<td>UNDERGRADUATE RESEARCH</td>
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### Human Dimensions and Societal Impacts Concentration Requirements 24

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ESS 210</td>
<td>COLLAPSE OF CIVILIZATIONS</td>
</tr>
<tr>
<td>ESS 402</td>
<td>SCI &amp; SOC ASPECTS NATURAL DISASTER</td>
</tr>
<tr>
<td>ESS 407</td>
<td>ENV THRTS, PUB POLY, &amp; DEC MKG</td>
</tr>
<tr>
<td>ESS 413</td>
<td>GIS &amp; REMOTE SENSING</td>
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<tr>
<td>ESS 414</td>
<td>GEOSPATIAL APPLICATION</td>
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Choose 3 courses from the following, one must be ESS 9

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ESS 302</td>
<td>PEOPLE, PLANTS, &amp; ENVIRONMENT</td>
</tr>
<tr>
<td>ESS 307</td>
<td>ENVIRONMENTAL ARCHEOLOGY</td>
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<tr>
<td>ESS 321</td>
<td>POLLUTION PROBLEMS</td>
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<tr>
<td>ESS 408</td>
<td>PYTHON FOR ID ESS APPLICATION</td>
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<tr>
<td>ESS 409</td>
<td>APPLI COMPUTERS IN METEOROLOGY</td>
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<tr>
<td>ESS 415</td>
<td>ADVANCED TOPICS IN GIS</td>
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<td>SOC 369</td>
<td>ENVIRONMENTAL SOCIOLOGY</td>
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<td>SOC 480</td>
<td>SOCIOLOGY SCIENCE &amp; TECHNOLOGY</td>
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<tr>
<td>PSC 480</td>
<td>ADVANCED TOPICS IN PSC</td>
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<tr>
<td>HY 368</td>
<td>AMERICAN ENVIRONMENTAL HISTORY</td>
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<tr>
<td>PSC 260</td>
<td>INTRODUCTION TO INTERNATIONAL RELATIONS</td>
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<tr>
<td>MGT 320</td>
<td>CAREER DEVELOPMENT</td>
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<td>MGT 361</td>
<td>ORGANIZATIONAL BEHAVIOR</td>
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<td>PSC 200+</td>
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### Elective Courses 14-16

Electives can be taken from any department and do not have to be taken in your major or minor. No more than 4 credit hours of 100 level HPE courses can count toward degree requirements.

### Total Semester Hours 128

1. Students must take one literature and one history course. Students must also take either a second literature or history course to complete a sequence. (EH 207 + EH 208, EH 209 + EH 210, EH 242 + EH 208, EH 242 + EH 210, HY 103 + HY 104, or HY 221 + HY 222)

2. Based on Math placement, (http://www.uah.edu/science/departments/math/undergraduate-students/placement) prerequisite MA 112 and/or MA 113 Mathematics courses may be required. If the student intends to pursue a course of study requiring more advanced mathematics background, MA 171 is recommended. Otherwise, MA 120 may be used to meet this requirement.

3. No more than 6 credit hours can be taken in a single discipline.

4. For choices see the World Languages and Cultures (http://catalog.uah.edu/undergrad/colleges-departments/arts-humanities-social-sciences/foreign-languages-literatures) department.

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Sample four year plan for Earth System Science, Human Dimensions and Societal Impacts Concentration, BS degree:

Note: This is only an example and variations are possible.

### Year 1

#### Fall

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>EH 101</td>
<td>FRESHMAN COMPOSITION</td>
<td>3</td>
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<tr>
<td>ESS 103 &amp; 103L</td>
<td>ENVIR EARTH SCI FND &amp; APPLICA and LABORATORY</td>
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<tr>
<td>ESS 111 &amp; 111L</td>
<td>CLIMATE AND GLOBAL CHANGE and CLIMATE &amp; GLOBAL CHG LAB</td>
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</table>
MA 171  CALCULUS A  4
FYE 101  CHARGER SUCCESS  1

**Term Semester Hours:**  16

**Spring**

EH 102  FRESHMAN COMPOSITION  3
ESS 112  SEVERE HAZARDOUS WEATHER  4
SOC 100  INTRO TO SOCIOLOGY  3
GY 105  WORLD REGIONAL GEOGRAPHY  3

Fine art  3

See Requirements tab for approved list.

**Year 2**

**Fall**

ESS 210  COLLAPSE OF CIVILIZATIONS  3
CH 121  GENERAL CHEMISTRY I  4
& CH 125  and GENERAL CHEMISTRY LAB I  
PH 101  GENERAL PHYSICS I  4
& 101L  and GENERAL PHYSICS LAB I  
GY 110  PRINCIPLES OF HUMAN GEOGRAPHY  3
SOC 105  INTRO CULTURAL ANTHROPOLGY  3

**Term Semester Hours:**  17

**Spring**

ESS 301  INTRO TO EARTH ATMOSPHC PHYS  3
PH 102  GENERAL PHYSICS II  4
& 102L  and GENERAL PHYSICS LAB II  
CS 102  INTRO TO C PROGRAMMING  3

Literature  3

See Requirements tab for approved list.

History  3

See Requirements tab for approved list.

**Year 3**

**Fall**

ESS 300+ level or higher course  3
CM 113  Intro to Rhetorical Communication  3
PSC 101  INTRO TO AMERICAN GOVERNMENT  3
ST 281  ELEMENTS OF STAT ANALYSIS  3
or MA 281  or ELEMENTS OF STATISTICAL ANALYS  

2nd History or 2nd Literature  3

See Requirements tab for approved list.

**Term Semester Hours:**  15

**Spring**

ESS 303  CLASSI PHYSICAL CAUSES CLIM  3
ESS 370  INTRODUCTION TO REMOTE SENSING  3
ESS 413  GIS REMOTE SENSING  3
PHL 102  INTRO TO ETHICS  3
PY 300 PSYCHOLOGICAL STATISTICS
& 300L and PSYCHOLOGICAL STATISTICS
or SOC 303 LAB or STATISTICS/SOCIAL SCIENCES

<table>
<thead>
<tr>
<th>Term</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>Fall</td>
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<tr>
<td>ESS 402</td>
<td>SCI SOC ASPTS NATRL DISASTER 3</td>
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<tr>
<td>ESS 414</td>
<td>GEOSPATIAL APPLICATIONS 3</td>
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<tr>
<td>Human Dimensions and Soc Impacts</td>
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<td>Elective</td>
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<tr>
<td>ESS 498</td>
<td>UNDERGRAD CAPSTONE PROPOSAL 1</td>
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<tr>
<td>EH 301</td>
<td>TECHNICAL WRITING 3</td>
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<table>
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<th>Term</th>
<th>Semester Hours</th>
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<tbody>
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<td>Spring</td>
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<td>ESS 407</td>
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<th>Term</th>
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