Natural Sciences - Earth Science Option, B.A.

DEPARTMENT

Science and Mathematics Interdisciplinary Courses and Programs
David M. Andrews, Director
Science I Building, Room 100
559.278.5173
www.fresnostate.edu/csm

BA in Natural Sciences - Biology Option, B.A.
BA in Natural Sciences - Earth Science Option, B.A.
BA in Natural Sciences - Physics Option, B.A.
BA in Natural Sciences - Chemistry Option, B.A.

The Bachelor of Arts in Natural Sciences serves as a waiver program for the Single Subject Teaching Credential in Science. With the Science Credential, students are able to teach any introductory science class, i.e. earth, general, life, or physical science along with the courses in their chosen emphasis. Please contact Mr. Jaime Arvizu, College of Science and Mathematics counselor, for advising and more information, at 278-5173.

REQUIREMENTS

Bachelor of Arts Degree Requirements

Natural Sciences Major

Earth Science Option

The B.A. in Natural Sciences serves as a waiver program for the Single Subject Teaching Credential in Science. Please contact Mr. Jaime Arvizu, College of Science and Mathematics counselor, for advising and more information at 278-5173.

The degree is also a suitable choice for students with a general interest in earth science and interest in pursuing a career in environmental science, law, medicine, dentistry, optometry, and other areas for which the breadth of scientific coverage of this degree is advantageous.

The B.A. in Natural Sciences with the Earth Science Emphasis is as follows:

Core requirements (36 units)
Biology (12 units)
BIOL 1A, 1B, 1BL, 101

Chemistry (10 units)
CHEM 1A, 1AL, 1B, 1BL

Geology (7 units)
EES 1 and 168

Natural Science (3 units)
NSCI 106

Physical Science (4 units)
PSCI 21

Earth Science Option (43 units)
PHYS 2A, 2B (see note 1) (8 units)
MATH 75 (4 units)
EES 12, 30, 100, 101, 102, 105, 112, 155 (24 units)
Select two courses: EES 110, 114, 117, 124; GEOG 111 (6 units)
EES 3 (1 unit)

General Education requirements (51 units)
Electives and remaining degree requirements (2 units)

Total (see notes 2,3) (120 units)

Advising Notes for all Options within the Natural Sciences Major

1. Substitutions may be made with the permission of the appropriate department chair. PHYS 4A-B-C with labs 4AL, 4BL is recommended instead of PHYS 2A-B for those students well-prepared for physics.

2. This total assumes that students in this option will maximize the 12 units required for the major that also may be applied to fulfill General Education requirements as follows: CHEM 1A (3 units), BIOL 1A (3 units), EES 168 (3 units) and, depending on emphasis and choice, MATH 75 (3 units). Consult your major adviser for details.

3. Students should be sure to take sufficient upper-division units in their General Education courses and electives to satisfy the graduation requirements of 40 upper-division units and Upper-division Writing Skills.

4. No physical science Integration B course may be used to satisfy the General Education requirements for majors in physical science.

FACULTY

<table>
<thead>
<tr>
<th>Name</th>
<th>Degree</th>
<th>Email</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donnelly, Dermot F</td>
<td>Doctor of Philosophy</td>
<td><a href="mailto:ddonnelly@csufresno.edu">ddonnelly@csufresno.edu</a></td>
<td></td>
</tr>
<tr>
<td>Reece, Joshua S</td>
<td>Doctor of Philosophy</td>
<td><a href="mailto:joreece@csufresno.edu">joreece@csufresno.edu</a></td>
<td></td>
</tr>
<tr>
<td>Walter, Emily M</td>
<td>Doctor of Philosophy</td>
<td><a href="mailto:ewalter@csufresno.edu">ewalter@csufresno.edu</a></td>
<td></td>
</tr>
</tbody>
</table>