Biology [Science] Education

Bachelor of Science degree with a major in Biology — concentration in science education leading to a single subject teaching credential

Biology Information:
Credential Advisor
Jeffrey White, Ph.D.
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Department Chair
Bruce O’Gara, Ph.D.

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The Program
Prepare to teach science (biology) in junior high school and high school. (For information on the preliminary and professional clear teaching credentials, see Education.)

Biology
Humboldt has the largest greenhouse in the California State University system, where students can examine a variety of plants in a variety of microclimates. Humboldt also has an extensive herbarium plus vertebrate and invertebrate museums. Students gain hands-on experience using plant growth chambers and electron microscopes.

In addition, the university has a marine laboratory in nearby Trinidad.

Preparation
Biology: In high school take biology, chemistry, and physics (with labs), plus algebra (beginning and intermediate), trigonometry, and geometry.

Requirements
For a description of degree requirements to be fulfilled in addition to those listed below for the major, please see “The Bachelor’s Degree” section of the catalog, pp. 58-74.

Students who receive a grade below a C- in any prerequisite course will require instructor approval for enrollment.

Please note: Degree requirements listed here do not include professional education courses required for the credential.

Before applying to the secondary education credential program, students must meet the prerequisite of 45 hours early field experience or enroll in SED 210/SED 410. In addition, they must take EDUC 285 or equivalent.

Courses listed here are subject to change. Please see an advisor.

Biology Education

Lower Division
BIOL 105 (4) Principles of Biology
BOT 105 (4) General Botany
CHEM 109 (5) General Chemistry I
CHEM 110 (5) General Chemistry II
GEOL 109 (4) General Geology
MATH 105 (3) Calculus for the Biological Sciences & NR
[or MATH 109]
PHYX 106 (4) College Physics: Mechanics & Heat
PHYX 107 (4) College Physics: Electromagnetism & Modern Physics
STAT 109 (4) Introductory Biostatistics
ZOOL 110 (4) Introductory Zoology

Take all lower division courses before beginning upper division work.

Upper Division
BIOL 307 (4) Evolution
BIOL 330 (4) Principles of Ecology
BIOL 340 (4) Genetics
BIOL 412 (4) General Bacteriology
BIOL 440 (2) Genetics Laboratory
BOT 350 (4) Plant Taxonomy
CHEM 328 (4) Brief Organic Chemistry
ZOOL 312 (4) Human Physiology

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