

Degree Requirements

Candidates for the degree in Biology with a specialized field of study in Marine Biology must complete the following requirements. All courses must be taken for a letter grade unless otherwise noted. The Marine Biology field of study will be noted in the program section of the student's transcript and on the diploma.

1. Core Courses

Three lecture courses:

BIO 41 – Genetics, Biochemistry, and Molecular Biology, BIO 42 – Cell Biology and Animal Physiology, and BIO/BIOHOPK 43 – Plant Biology, Evolution, and Ecology

One lab course:

BIO 44X (Core Molecular Biology Laboratory) **or** BIO/BIOHOPK 44Y (Core Plant Biology & Eco Evo Laboratory)

2. Required Foundational Breadth Courses - Students may take up to two of these courses with the CR/NC grading option.

CHEM 31A and 31B (or 31X), 33(or 1), 35(or 2), 36* (or 1L and 2L), 130 (or 2L and 3L or other approved alternative**), 131 (or 3) PHYSICS 21, 22, 23, 24; or 41, 43, 45; or 21S, 23S

MATH 19, 20, 21; or 41, 42; or 51 (refer to <http://math.stanford.edu/undergrad/whatcourse.html> to determine which is appropriate.)

STATS 60, BIO 141, or BIOHOPK 174H

* Not required if CHEM 35 was taken Autumn 2014 or later.

**May be substituted with upper-division, above 100-level quantitative or computational course from this list: BIO 182, 183, 220; BIOC 218; BIOMEDIN 212, 214, 217, 231, 262, 374; CS courses above 106A (may not fulfill both the CHEM 130 and additional foundational breadth requirement); GENE 212, 214, 244; MATH courses above 102; STATS 116.

3. Required Biology Courses

BIO 101 – Ecology **or** BIOHOPK 172H – Marine Ecology*

BIO 118 – Genetic Analysis of Biological Processes

BIO 143 – Evolution

*Please note that this course cannot also count in section 4 below.

4. Four of the following:

BIO/EARTHSYS 116 – Ecology of the Hawaiian Islands

BIOHOPK 150H – Ecological Mechanics

BIOHOPK 155H – Developmental Biology and Evolution

BIOHOPK 160H – Developmental Biology in the Ocean

BIOHOPK 161H – Invertebrate Zoology

BIOHOPK 162H – Comparative Animal Physiology

BIOHOPK 163H – Oceanic Biology

BIOHOPK 167H – Nerve, Muscle, and Synapse

BIOHOPK 172H – Marine Ecology*

BIOHOPK 173H – Marine Conservation Biology

BIOHOPK 177H – Dynamics and Management of Marine Populations

BIOHOPK 179H – Physiological Ecology of Marine Megafauna

BIOHOPK 182H – Stanford at Sea

BIOHOPK 185H – Ecology and Conservation of Kelp Forest Communities

BIOHOPK 187H – Sensory Ecology

OSPAUSTL 10, 25, and 30 – Coral Reef Ecosystems, Freshwater Systems and Coastal Forest Ecosystems**

*This course cannot also count in section 3 above.

**These three courses as a whole count as one of the four required courses in this section.

5. Writing in the Major – One of the following: BIO 44Y, 107, 137, 168, 196A, 197WA, 199W, BIOHOPK 44Y, 172H. May overlap with other requirements.

6. Research and Honors Requirements

Students in the Marine Biology field of study must fulfill the requirements for graduation with honors in Biology. Following are the requirements:

A. Approved honors proposal

B. 10 units of BIO 199/X or BIOHOPK 199H from the same lab

C. Poster/Oral Presentation

D. Honors Thesis on a marine biology topic. One Hopkins Marine Station faculty member must be a reader on the thesis.

<p>CORE COURSES: Lecture courses letter-grade only</p>	<p>3 lecture courses: <input type="checkbox"/> BIO 41 <input type="checkbox"/> BIO 42 <input type="checkbox"/> BIO/BIOHOPK 43 1 lab course: <input type="checkbox"/> BIO 44X or <input type="checkbox"/> BIO/BIOHOPK 44Y</p>																
<p>REQUIRED FOUNDATIONAL BREADTH COURSES: Students may take up to two foundational breadth courses with the CR/NC grading option.</p>	<p>CHEMISTRY <input type="checkbox"/> 31A & <input type="checkbox"/> 31B or <input type="checkbox"/> 31X <input type="checkbox"/> 33 or <input type="checkbox"/> 1 <input type="checkbox"/> 35 or <input type="checkbox"/> 2 <input type="checkbox"/> 36* or <input type="checkbox"/> 1L & <input type="checkbox"/> 2L <input type="checkbox"/> 130 or <input type="checkbox"/> 2L and <input type="checkbox"/> 3L or <input type="checkbox"/> other approved alternative <input type="checkbox"/> 131 or <input type="checkbox"/> 3</p> <p><small>*Not required if Chem 35 was taken Autumn 2014 or later</small></p> <p>PHYSICS <input type="checkbox"/> 21 <input type="checkbox"/> 22 <input type="checkbox"/> 23 <input type="checkbox"/> 24 or <input type="checkbox"/> 41 <input type="checkbox"/> 43 <input type="checkbox"/> 45 or <input type="checkbox"/> 21S <input type="checkbox"/> 23S</p> <p>MATH <input type="checkbox"/> 19 <input type="checkbox"/> 20 <input type="checkbox"/> 21 or <input type="checkbox"/> 41 <input type="checkbox"/> 42 or <input type="checkbox"/> 51</p> <p>ADDITIONAL FOUNDATIONAL BREADTH <input type="checkbox"/> BIO 141 or <input type="checkbox"/> STATS 60 or <input type="checkbox"/> BIOHOPK 174H</p>																
<p>REQUIRED BIOLOGY COURSES: Letter-grade only</p>	<p><input type="checkbox"/> BIO 101 or <input type="checkbox"/> BIOHOPK 172H* <input type="checkbox"/> BIO 118 <input type="checkbox"/> BIO 143</p> <p><small>*if taken for this requirement, cannot also count below.</small></p>																
<p>REQUIRED MARINE BIOLOGY COURSES: Letter-grade only</p>	<p>Students must take <u>four</u> of these courses.</p> <table border="0"> <tr> <td><input type="checkbox"/> BIO/EARTHSYS 116</td> <td><input type="checkbox"/> BIOHOPK 172H*</td> </tr> <tr> <td><input type="checkbox"/> BIOHOPK 150H</td> <td><input type="checkbox"/> BIOHOPK 173H</td> </tr> <tr> <td><input type="checkbox"/> BIOHOPK 155H</td> <td><input type="checkbox"/> BIOHOPK 177H</td> </tr> <tr> <td><input type="checkbox"/> BIOHOPK 160H</td> <td><input type="checkbox"/> BIOHOPK 179H</td> </tr> <tr> <td><input type="checkbox"/> BIOHOPK 161H</td> <td><input type="checkbox"/> BIOHOPK 182H</td> </tr> <tr> <td><input type="checkbox"/> BIOHOPK 162H</td> <td><input type="checkbox"/> BIOHOPK 185H</td> </tr> <tr> <td><input type="checkbox"/> BIOHOPK 163H</td> <td><input type="checkbox"/> BIOHOPK 187H</td> </tr> <tr> <td><input type="checkbox"/> BIOHOPK 167H</td> <td><input type="checkbox"/> OSPAUSTL 10, 25 and 30 (must take all 3)</td> </tr> </table> <p><small>*May not also count above</small></p>	<input type="checkbox"/> BIO/EARTHSYS 116	<input type="checkbox"/> BIOHOPK 172H*	<input type="checkbox"/> BIOHOPK 150H	<input type="checkbox"/> BIOHOPK 173H	<input type="checkbox"/> BIOHOPK 155H	<input type="checkbox"/> BIOHOPK 177H	<input type="checkbox"/> BIOHOPK 160H	<input type="checkbox"/> BIOHOPK 179H	<input type="checkbox"/> BIOHOPK 161H	<input type="checkbox"/> BIOHOPK 182H	<input type="checkbox"/> BIOHOPK 162H	<input type="checkbox"/> BIOHOPK 185H	<input type="checkbox"/> BIOHOPK 163H	<input type="checkbox"/> BIOHOPK 187H	<input type="checkbox"/> BIOHOPK 167H	<input type="checkbox"/> OSPAUSTL 10, 25 and 30 (must take all 3)
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<p>WRITING IN THE MAJOR: One course. May overlap with other requirements.</p>	<p>BIO <input type="checkbox"/> 107 <input type="checkbox"/> 137 <input type="checkbox"/> 168 <input type="checkbox"/> 196A <input type="checkbox"/> 197WA <input type="checkbox"/> 199W starting 2014-15 <input type="checkbox"/> 44Y BIOHOPK <input type="checkbox"/> 44Y <input type="checkbox"/> 172H</p>																
<p>RESEARCH & HONORS REQUIREMENTS:</p>	<p><input type="checkbox"/> 10 Units of BIO 199/X or BIOHOPK 199H <input type="checkbox"/> 199X petition on file, if applicable <input type="checkbox"/> Poster/Oral Presentation <input type="checkbox"/> Honors Thesis on a Marine Biology topic</p>																

Name: _____ Email: _____ SU ID#: _____ Date: _____

Unfinished Requirements: