MARINE BIOLOGY AND ECOLOGY MINOR

Administered by the Department of Integrative Biology under the School of Life Sciences.

Students must complete the core of the minor and either track outlined below. The minor requires one or more terms in residence at Hatfield Marine Science Center, typically during junior year spring (Track II) or summer (Track I). The courses in the Marine Biology and Ecology minor may be shared with major requirements. Students cannot receive any combination of the Biology minor, Marine Biology and Ecology minor or the Marine Biology option. The minor requires the BI 211 *PRINCIPLES OF BIOLOGY, BI 212 *PRINCIPLES OF BIOLOGY or BI 213 *PRINCIPLES OF BIOLOGY series and a term or more of chemistry and ST 351 for required course work. The BI 450 *MARINE BIOLOGY AND ECOLOGY course requires BI 370 ECOLOGY and has enrollment restrictions.

The BI 450 *MARINE BIOLOGY AND ECOLOGY course (see Track II) is taught each spring term at Hatfield Marine Science Center and is by application only. It covers marine invertebrates, algae and fishes, as well as sections on marine ecology, conservation and policy. Students apply to and are accepted the fall term before the spring they plan to attend. Applications are available fall term in the Integrative Biology office in Cordley 3029.

The BI 111 INTRODUCTION TO MARINE LIFE IN THE SEA: MARINE HABITATS is an optional weekend experiential course at Hatfield Marine Science Center that complements the minor, particularly for students with little or no previous marine experience.

Complete Track I or II and Two Electives

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<td>Complete Track I or II and Two Electives</td>
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**Track I**

- BI 150 INTRODUCTION TO MARINE BIOLOGY (or select an additional upper-division elective below)
- BI 351 MARINE ECOLOGY
- BI 373 *FIELD METHODS IN MARINE ECOLOGY
- BOT 416 AQUATIC BOTANY
- FW 315 ICHTHYOLOGY
- OC 201 *OCEANOGRAPHY
- Z 461 MARINE AND ESTUARINE INVERTEBRATE ZOOLOGY (Taught at Hatfield Marine Science Center)

**Track II**

- BI 150 INTRODUCTION TO MARINE BIOLOGY (or select an additional upper-division elective below)
- BI 450 *MARINE BIOLOGY AND ECOLOGY (admission by application only - Taught at Hatfield Marine Science Center)
- OC 201 *OCEANOGRAPHY

**Track I and II Electives**

Select 2 courses from below (6–8 credits) or 3 courses if you did not 6-12 take BI 150 (9-12 credits):

- BI 302/FW 302 BIOLOGY AND CONSERVATION OF MARINE MAMMALS (Taught at Hatfield Marine Science Center)
- BI 347 *OCEANS IN PERIL
- BI 358 SYMBIOSES AND THE ENVIRONMENT
- BI 421/FW 421 AQUATIC BIOLOGICAL INVASIONS (Taught at Hatfield Marine Science Center)
- FW 316 SYSTEMATICS OF FISHES
- FW 331 ECOLOGY OF MARINE AND ESTUARINE BIRDS (Taught at Hatfield Marine Science Center)
- FW 434/OC 434 ESTUARINE ECOLOGY
- FW 464 MARINE CONSERVATION BIOLOGY
- FW 493 FIELD METHODS FOR MARINE RESEARCH (Taught at Hatfield Marine Science Center)
- MB 314 AQUATIC MICROBIOLOGY
- OC 440 BIOLOGICAL OCEANOGRAPHY (Taught at Hatfield Marine Science Center)
- Z 423 ENVIRONMENTAL PHYSIOLOGY

Total Hours: 28-36

* Baccalaureate Core Course (BCC)
^ Writing Intensive Course (WIC)

Minor Code: 695