BODEGA MARINE LABORATORY SUMMER SPECIAL SESSION PROGRAM 2011

This integrated program offers students a multidisciplinary understanding of coastal ecosystems through intensive, hands-on courses taught at the Bodega Marine Laboratory (BML). The Program offers students three sequences of instruction with up to 10 units in each. Two sequences occur during the first Summer Session and one sequence in the second Summer Session. For a full description of this program, please consult the BML website.

All courses require residence at or near Bodega Marine Laboratory. You will be provided with details of housing arrangements at the time of notification of acceptance to the courses.

Application Form (Application deadline for all summer sequences is April 15, 2011)

Resources and information for BML courses and course enrollment:

- BML On-Campus Peer Advisor Schedule
- Contact your undergraduate advisor
- Contact Lisa Valentine (707) 875-2002

SEQUENCE ONE: Summer Session I, June 19 - July 29, 2011

Marine Organisms and Communities of the California Coast

Dates: June 19-July 29, 2011
Location: Bodega Marine Laboratory
Application Deadline: April 15, 2011
Course fee for UC students: $2,290
Course fee for non-UC students: $3,210 and a $300 processing fee

A full course load (10 units) consists of two core courses, an independent research project, and a discussion seminar. Students may also choose a less intensive experience including at least one core course, the independent research project and/or the discussion seminar.

EVE 106 – Mechanical Design in Organisms
Units: 3
Explores fundamental principles in the form and function of organisms, examining how basic properties of size, shape, structure and habitat constrain ways in which plants and animals interact and cope with their physical surroundings. This course will employ a combination of lecture, lab, and fieldwork.

Prerequisite: BML application/Consent of instructor
Instructor: Brian Gaylord

EVE 114 – Experimental Invertebrate Biology
Units: 3
Functional biology, ecology, and evolution of local marine invertebrates, with an emphasis on adaptations to physical and biological factors encountered on the California coast. The course will offer a strong field and lab component and will emphasize testing hypotheses that are generated by the class.

Prerequisite: BML application/Consent of instructor
Instructor: Eric Sanford

BIS 124 – Coastal Marine Research
Independent student research on topics related to the accompanying BML summer session courses. Students will select one instructor to be their primary mentor, but integrative topics that draw on the expertise of several BML faculty members will be encouraged.

Concurrent enrollment in EVE 114 and/or EVE 106 is required. **Prerequisite:** BML application/Consent of instructor  
**Instructor:** Brian Gaylord, Eric Sanford

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**EVE 111 – Marine Environmental Issues**  
**Units:** 1  
Readings and structured group discussion of critical environmental issues in coastal waters. The course will connect material from concurrent courses at BML and provide students with an integrative understanding of marine environments and conservation. The course will include two invited seminars/lectures by recognized experts.

Concurrent enrollment in EVE 114 and/or EVE 106 is required. **Prerequisite:** BML application/Consent of instructor  
**Instructor:** Brian Gaylord, Eric Sanford

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**SEQUENCE TWO: Summer Session I, June 19 - July 29, 2011**

**Effects of Coastal Pollution on Marine Organisms**  
**Dates:** June 19-July 29  
**Location:** Bodega Marine Laboratory  
**Application Deadline:** April 15, 2011

**ETX 127 or NUT 127 – Environmental Stress and Development in Marine Organisms**  
**10 units**

Course addresses how pollutants impact the most sensitive life stages of marine organisms: their embryos and larvae. Students will gain experience in experimental aspects of reproduction and development of marine organisms and how environmental stress impacts these events. The course will include an intense lecture-lab component as well as an independent research project.

**Prerequisite:** Environmental Toxicology 101 or Biological Sciences 102 or equivalent; Environmental Toxicology 114A/Nutrition 114 recommended. BML application/Consent of instructor.  
**Instructor:** Gary Cherr

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**SEQUENCE THREE: Summer Session II, July 31 - September 9, 2011**

**Oceanography**  
**Dates:** July 31 -- September 9, 2011  
**Location:** Bodega Marine Laboratory  
**Application Deadline:** April 15, 2011

A full course load (10 units) consists of two core courses, and an independent research project. Students may also choose a less intensive experience including at least one core course plus the independent research project.
ESP 152 Coastal Oceanography
Units: 3
Oceanography of coastal waters (shelf, bay, river plume, near-shore, estuary). The focus is on transport patterns, how they are forced and what implications they have for ecological and environmental problems. The course has a west-coast bias, and will use field-based learning in addition to lectures and assignments. This experience will be of interest to students in oceanography, ecology, environmental engineering, geology and hydrology.

Prerequisite: BML application/Consent of instructor
Instructor: John Largier

GEL 150C/ ESP 150C Biological Oceanography
Units: 4
Biological topics from phytoplankton and primary production to zooplankton, fisheries and major marine habitats. Ecology of communities such as intertidal, shelf benthic, deep-sea and open ocean. The course will focus on existing knowledge and contemporary research questions, as well as human impacts and conservation. The course will include lectures, group projects, field and lab work.

Prerequisite: BML application/Consent of instructor
Instructor: Tessa Hill

BIS 124 – Coastal Marine Research
Units: 3
Independent student research on topics related to the accompanying BML summer session courses. Students will select one instructor to be their primary mentor, but integrative topics that draw on the expertise of several BML faculty members will be encouraged. Concurrent enrollment in ESP 152 and/or GEL/ESP 150C is required.

Prerequisite: BML application/Consent of instructor.
Instructor: John Largier, Tessa Hill