

OCEAN STUDIES INSTITUTE

College of Natural Sciences and Mathematics

Director: Daniel Pondella

Location: Fish Harbor

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Introduction

The Ocean Studies Institute was created in 1972 to coordinate teaching, research and community service in ocean studies on member campuses. Members include Dominguez Hills, Fullerton, Long Beach, Los Angeles, Northridge, Pomona, San Bernardino, and San Marcos. The Institute does not offer degrees, but it serves as an administrative liaison to facilitate degree programs offered on member campuses.

The Institute operates a 76-foot research vessel for teaching and research purposes, obtains research grants and contracts, performs research, and is responsible for curriculum planning and facilities acquisition. Presently the Institute serves over 35 departments across eight campuses.

The courses and research in which the Institute is actively engaged reflect the broad applied approach of interdisciplinary, mission-oriented projects in harbors and the coastal zone.

Courses (OSI)

UPPER DIVISION

345. Physiology of Marine Animals (4)

Prerequisite: BIOL 211, 212, 213.

Comparison of the fundamental physiological processes of the major marine phyla, both invertebrate and vertebrate. Laboratory and field investigations will be directed toward marine animals living in the local waters.

Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.)

353. Marine Biological Processes (4)

Prerequisite: BIOL 211, 212, 213.

Study of pelagic and benthic marine ecosystems, including human influences.

Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.)

417./517. Marine Benthic Invertebrates of Santa Catalina Island (4)

Prerequisite: OSI 353 and consent of instructor. (Undergraduates enroll in OSI 417; graduates enroll in OSI 517)

Topics include benthic community structure and function, benthic-pelagic coupling, animal-sediment relationships, animal interactions, and marine pollution ecology. Laboratory emphasis will be on identification of local forms.

Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.)

419./519. Marine Ichthyology (4)

Prerequisite: OSI 353 and consent of instructor. (Undergraduates enroll in OSI 419; graduates enroll in OSI 519)

Taxonomy, morphology, physiology, and ecology of fishes. Emphasis on local marine fishes.

Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.)

420./520. Ecology of Marine Fishes (4)

Prerequisite: OSI 419/519 and consent of instructor. (Undergraduates enroll in OSI 420; graduates enroll in OSI 520)

Fish species assemblages, general ecology, adaptations, and behavioral ecology of marine fishes. Emphasis on local marine fishes.

Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.)

425./525. Marine Phycology (4)

Prerequisite: BIOL 211, 212, 213. (Undergraduates enroll in OSI 425; graduates enroll in OSI 525)

Taxonomy, phylogeny, ecology, and physiology of marine algae; emphasis on local marine forms.

Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.)

455./555. Marine Ecological Processes (4)

Prerequisite: OSI 353 or BIOL 350 and consent of instructor; statistics recommended. (Undergraduates enroll in OSI 455; graduates enroll in OSI 555)

Discussion of field studies on ecological principles related to marine communities. Includes an individual field research project and class projects.

Letter grade only (A-F). (Lecture 2 hrs., field 6 hrs.)

490./590. Selected Topics in Ocean Studies (1-3)

Prerequisite: Consent of instructor. (Undergraduates enroll in OSI 490; graduates enroll in OSI 590)

Topics from selected areas of Ocean Studies. Topic content will vary from section to section.

Letter grade only (A-F). May be repeated to a maximum of 6 units with the consent of instructor. Maximum credit for OSI 490/590 and/or 490L/590L limited to 6 units. Topics announced in the *Schedule of Classes*. (Lecture 1-3 hrs.)

490L./590L. Selected Topics in Ocean Studies Laboratory (1-3)

Prerequisite: Consent of instructor. (Undergraduates enroll in OSI 490L; graduates enroll in OSI 590L)

Topics from selected areas of Ocean Studies.

Letter grade only (A-F). May be repeated to a maximum of 6 units with the consent of instructor. Maximum credit for OSI 490/590 and/or 490L/590L limited to 6 units. Topics announced in the *Schedule of Classes*. (Laboratory 3-9 hrs.)

496. Undergraduate Directed Research (1-3)

Prerequisite: Consent of instructor. Not available to graduate students.

Independent research to be conducted under the supervision of a Catalina Semester instructor. Students develop their ideas during the first 12 weeks of the semester, prepare a research proposal, complete their studies, and present their findings in a mini-symposium and a report.

Letter grade only (A-F).

GRADUATE LEVEL

517./417. Marine Benthic Invertebrates of Santa Catalina Island (4)

Prerequisite: OSI 353 and consent of instructor. (Undergraduates enroll in OSI 417; graduates enroll in OSI 517)

Topics include benthic community structure and function, benthic-pelagic coupling, animal-sediment relationships, animal interactions, and marine pollution ecology. Laboratory emphasis will be on identification of local forms.

Letter grade only (A-F). (Lecture 2 hrs, laboratory and field 6 hrs.)

519./419. Marine Ichthyology (4)

Prerequisite: OSI 353 and consent of instructor. (Undergraduates enroll in OSI 419; graduates enroll in OSI 519)

Taxonomy, morphology, physiology, and ecology of fishes. Emphasis on local marine fishes.

Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.)

520./420. Ecology of Marine Fishes (4)

Prerequisite: OSI 519/419 and consent of instructor. (Undergraduates enroll in OSI 420; graduates enroll in OSI 520)

Fish species assemblages, general ecology, adaptations, and behavioral ecology of marine fishes. Emphasis on local marine fishes.

Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.)

525./425. Marine Phycology (4)

Prerequisite: BIOL 211, 212, 213. (Undergraduates enroll in OSI 425; graduates enroll in OSI 525)

Taxonomy, phylogeny, ecology, and physiology of marine algae; emphasis on local marine forms.

Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.)

555./455. Marine Ecological Processes (4)

Prerequisite: OSI 353 or BIOL 350 and consent of instructor; statistics recommended. (Undergraduates enroll in OSI 455; graduates enroll in OSI 555)

Discussion of field studies on ecological principles related to marine communities. Includes an individual field research project and class projects.

Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.)

590./490. Selected Topics in Ocean Studies (1-3)

Prerequisite: Consent of instructor. (Undergraduates enroll in OSI 490; graduates enroll in OSI 590)

Topics from selected areas of Ocean Studies. Course content will vary from section to section.

Letter grade only (A-F). May be repeated to a maximum of 6 units with consent of instructor. Maximum credit for OSI 490/590 and/or 490L/590L limited to 6 units. Topics announced in the *Schedule of Classes*. (Lecture 1-3 hrs.)

590L./490L. Selected Topics in Ocean Studies Laboratory (1-3)

Prerequisite: Consent of instructor. (Undergraduates enroll in OSI 490L; graduates enroll in OSI 590L)

Topics from selected areas of Ocean Studies. Course content will vary from section to section.

Letter grade only (A-F). May be repeated to a maximum of 6 units with consent of instructor. Maximum credit for OSI 490/590 and/or 490L/590L limited to 6 units. Topics announced in the *Schedule of Classes*. (Laboratory 3-9 hrs.)

697. Directed Research (1-3)

Prerequisite: Consent of instructor and graduate standing.

Independent research to be conducted under the supervision of a Catalina Semester instructor. Students develop their ideas during the first 12 weeks of the semester, prepare a research proposal, complete their studies, and present their findings in a mini-symposium and a report.

Letter grade only (A-F).