

Oceanography

Oceanography is the scientific study of the ocean and its phenomena. Students take courses to prepare for a major in oceanography and to fulfill physical science general education requirements. Career options include teaching, research, marine product sales, marine safety, and a variety of positions in private and public environmental agencies.

Academic and Career Pathway

Math and Sciences

Contact Information

Chair: Erika Peters (Physical Sciences)

Dean: Michael Fino

<https://www.miracosta.edu/academics/degree-and-certificate-programs/math-and-sciences/oceanography/index.html>

Department: Physical Sciences

Office: Building OC3600,
760.757.2121 x6924

Full-Time Faculty

Roberto Falero
Eric Snortum
John Turbeville

Courses

OCEA 101: Introduction to Oceanography

Units: 3

Prerequisites: None

Enrollment Limitation: Not open to students with prior credit in OCEA 101H.

Acceptable for Credit: CSU, UC

Lecture 3 hours.

Course Typically Offered: Fall, Spring, and Summer

This course explores the major processes and features of the world's oceans. Topics include the origin and history of the ocean basins, atmospheric circulation and weather, ocean circulation, and the dynamics of waves, tides, and coastlines. The course also reviews marine life (including plankton, nekton, benthos, and marine mammals), explores the oceans as a resource for people, and considers human impacts on marine environments. UC CREDIT LIMITATION: Credit for OCEA 101 or OCEA 101H.

OCEA 101H: Introduction to Oceanography (Honors)

Units: 3

Prerequisites: None

Enrollment Limitation: Not open to students with prior credit in OCEA 101.

Acceptable for Credit: CSU, UC

Lecture 3 hours.

Course Typically Offered: Fall or Spring

This course offers students an enriched introduction to the scientific study of the oceans. The course explores the major processes and features of the world's oceans, including plate tectonics, the origin and history of the ocean basins, atmospheric circulation, weather and climate, ocean circulation, and the dynamics of waves, tides, and coastlines. The course also reviews marine life (including plankton, nekton, benthos, and marine mammals), explores the oceans as a resource for people, and considers human impacts on marine environments. UC CREDIT LIMITATION: Credit for OCEA 101 or OCEA 101H.

OCEA 101L: Introductory Oceanography Laboratory

Units: 1

Prerequisites: OCEA 101 or OCEA 101H.

Enrollment Limitation: Concurrent enrollment in OCEA 101 or OCEA 101H if prerequisite not met.

Acceptable for Credit: CSU, UC

Laboratory 3 hours.

Course Typically Offered: Fall, Spring

This course is designed to accompany Oceanography 101 or 101H. It offers hands-on experience with oceanographic materials and techniques in both the laboratory and field. Topics include reading navigational charts and topographic maps, interpreting sea floor features, analyzing seawater chemistry, and studying waves and tides. On field trips, students study waves, currents, and coastal processes, examine organisms in coastal marine habitats and at an aquarium, and participate in a half-day scientific ocean voyage.

OCEA 292: Internship Studies

Units: 0.5-14

Prerequisites: None

Corequisite: Complete 54 hours of work per unit, paid or unpaid.

Enrollment Limitation: Instructor, dept chair, and Career Center approval. Fourteen unit maximum in any combination of work experience education and/or internship studies per semester.

Acceptable for Credit: CSU

Course Typically Offered: Fall, Spring, and Summer

This course provides students the opportunity to apply the theories and techniques of their discipline in an internship position in a professional setting under the instruction of a faculty-mentor and site supervisor. It introduces students to aspects of the roles and responsibilities of professionals employed in the field of study. Topics include goal-setting, employability skills development, and examination of the world of work as it relates to the student's career plans. Students must develop new learning objectives and/or work/intern at a new site upon each enrollment.