

PALOMAR COLLEGE
COURSE OUTLINE OF RECORD FOR
DEGREE CREDIT COURSE

 X Transfer course X A.A. degree applicable course
(check all that apply)

COURSE NUMBER AND TITLE: Oceanography 100L – Oceanography Laboratory

UNIT VALUE: 1

MINIMUM NUMBER OF SEMESTER HOURS: 48

BASIC SKILLS REQUIREMENTS: Appropriate language and computational skills.

ENTRANCE REQUIREMENTS

PREREQUISITE: Completion of or concurrent enrollment in Oceanography 100.

COREQUISITE:

RECOMMENDED PREPARATION: None

SCOPE OF COURSE:

Laboratory and field investigations of marine environments including geologic, physical, chemical, and biological aspects of the ocean and coastal area. The course emphasizes changing physical factors and human activities as they affect the oceans. Not open to students with prior credit in Oceanography 101.

SPECIFIC COURSE OBJECTIVES:

The successful student will be able to:

1. describe oceanographic processes that shape the marine environment.
2. apply knowledge of processes learned in lecture to explain natural oceanic phenomena such as the role of plate tectonics in sea floor topography.
3. analyze and manipulate oceanographic research data.
4. apply techniques of interpreting bathymetric charts and determining navigation.
5. properly use oceanographic equipment for marine sampling.
6. apply the scientific method to the investigation of oceanographic phenomena.

CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE:

- I. Introduction to Bathymetric Charts
- II. Interpretation of Bathymetric Charts
- III. Methods of Coastal Navigation
- IV. Plate Boundaries and Sea Floor Topography
- V. Materials on the Sea Floor
- VI. Field Trip: ODP and Scripps Core Repositories
- VII. Properties of Sea Water
- VIII. Field Trip: Coastal Cliff Erosion, Del Mar and Solana Beach
- IX. Ocean Currents
- X. Field Trip: Beach Profiling
- XI. Field Trip: Oceanside Case Study, Oceanside Harbor

- XII. Field Trip: Tide Pools
- XIII. Tides and Interpretation of Tidal Charts
- XIV. Interpretation of Worldwide Coastlines
- XV. Field Trip: Oceanographic Boat Trip (Floating Lab)
- XVI. Field Trip: Stephen Birch Aquarium-Museum

Due to the scheduling of classes and changes in the tides, the following alternate labs may be substituted for any of the above labs:

- 1) El Niño and Climate
- 2) Field Trip: Hubbs/Sea World Fish Hatchery
- 3) Field Trip: Encina Sewage Treatment Plant
- 4) other appropriate investigations of oceanographic processes/phenomena

REQUIRED READING:

Deen, Patricia, Lisa DuBois, and Al Trujillo. Laboratory and Field Exercises in Oceanography. Zenda, WI: Paladin House Publishing, 1999 (or most current edition).

SUGGESTED READING:

Any pertinent articles that may appear in the daily and/or weekly public press that relate to oceanographic phenomena.

REQUIRED WRITING:

A total of six 2-3 page written field trip reports. These reports are completed outside of class.

OUTSIDE ASSIGNMENTS:

Students are expected to spend a minimum of three hours per unit per week in class and on outside assignments, prorated for short-term classes.

There is required preparatory reading for each lab exercise and review of previous lab exercises for quizzes. Required field trip reports necessitate a certain amount of outside research to satisfactorily complete.

INSTRUCTIONAL METHODOLOGY:

Check all that apply:

- lecture
- laboratory
- lecture-laboratory combination
- directed study

This course may be offered as a distance learning course and meets Title 5 regulations 55370, 55372, 55374, 55376, 55378, and 55380.

Yes No

If yes, check all that apply.

- Television Course (Video one-way, e.g. ITV, video cassette, etc.)
- Online Course (Text one-way, e.g. newspaper, correspondence, electronic file, etc.)
- Two-Way Video Conferencing (Two-way interactive video and audio)
- One-Way Video Conferencing (One-way interactive video and two-way interactive audio)
- Computer Assisted Instruction (A specialized form of mediated instruction relying primarily on student access to information and prepared lessons or teaching materials through a computer terminal, but not under immediate supervision of a qualified instructor.)

GRADING POLICY AND STANDARDS (include methods of determining whether the stated objectives have been met by students):

Grades are determined as follows:

In-class exercises	25%
Quizzes	25%
Field-trip participation	25%
Field trip reports	25%

IS COURSE REPEATABLE FOR REASON(S) OTHER THAN DEFICIENT GRADE?

Yes ___ No X Number of times course may be taken for credit: 1

If yes, identify specific provision of Title 5 Division 2 section(s), 55761-55763 and 58161 which qualifies course as repeatable:

CONTACT PERSONS:

Patricia Deen (760) 744-1150 Ext. 2519
Dr. Lisa DuBois (760) 744-1150 Ext. 2369
Al Trujillo (760) 744-1150 Ext. 2734

SIGNATURES:

SIGNATURES ON FILE