

CATALOG INFORMATION

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Dept & Nbr: BIO 242 Title: INTRO TO OCEANOGRAPHY

Full Title: Introduction to Oceanography

Units	Course Hours	Per Week	Nbr of Weeks	Course Hours	Total
Max: 3.0	Lecture	3.0	17	Lecture	51.0
Min: 3.0	Lab	0.0		Lab	0.0
	Contact DHR	0.0		Contact DHR	0.0
	Contact Total	3.0		Contact Total	51.0
	Non-contact DHR	0.0		Non-contact DHR	0.0

Title 5 Category: 01 AA Degree Applic
Grading: GC Credit course for grade or CR/NC
Repeatability: 00 No repeatability allowed or defined
Also listed as:

CATALOG DESCRIPTION:

A general survey of the basic principles and procedures applying to geological, physical, and biological oceanography; consideration of the basic distributional pattern of life in the sea; and an introduction to the basic oceanographic tools and their use.

PREREQUISITES:

COREQUISITES:

RECOMMENDED PREPARATION:

No advisories.

LIMITS ON ENROLLMENT:

SCHEDULE OF CLASSES INFORMATION:

Learn about the geology, chemistry, physics and biology of the world's oceans. (Grade or CR/NC)
Transfer Credit: CSU; UC.

ARTICULATION and CERTIFICATE INFORMATION

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ASSOCIATE DEGREE:		Effective: FALL	1983	Inactive:
Area:	A	NATURAL SCIENCES		
CSU GE:		Effective: FALL	1983	Inactive:
Transfer area:	B2	LIFE SCIENCE		
IGETC:		Effective: FALL	1984	Inactive:
Transfer area:	5B	BIOLOGICAL SCIENCES		

CSU TRANSFER: TRANSFERABLE Effective: FALL 1983 Inactive:

UC TRANSFER: TRANSFERABLE Effective: FALL 1983 Inactive:

CAN:

CERTIFICATE APPLICABLE: N NOT CERTIFICATE/MAJOR APPLICABLE

APPROVAL AND DATES

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Version 01 Submitted by: ALAN WEST Date: 02/24/1989
 Department approved: Date:
 Curriculum approved: 04/07/1983 Version approved: 04/07/1983
 Prerequisites approved: 02/24/1989 Last reviewed: 02/24/1989
 Term effective: FALL 1989 Last taught: SPRING 2008 Inactive:

COURSE CONTENT

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OUTCOME AND OBJECTIVES:

1. Be familiar with marine geology, chemistry, physics, and biology.
2. Develop a broad understanding of the importance of the ocean to earth's physical, chemical and biological systems.
3. Develop an understanding of critical environmental issues important to oceanic systems.
4. Develop critical thinking skills by using the scientific method of problem solving.

TOPICS AND SCOPE:

1. Introduction
 - a. Historical highlights
 - b. Ships/submersibles
2. Navigation
 - a. Diving
 - b. Geological oceanography
3. Structure of the Earth
 - a. Coastal features
4. Deep Sea Features
 - a. Plate tectonics
 - b. Continental drift
5. Sediments
 - a. Resources of sea floor
6. Chemical Oceanography
 - a. Properties of water
7. Dissolved Solids, Gases, and Nutrients
 - a. Salinity
 - b. Nutrients
8. Temperature/Density
 - a. Wind waves
 - b. Tsunamis
 - c. Tides
9. Beaches
 - a. Coriolis
 - b. Wind patterns
10. Surface Currents

- a. Deep Currents
11. Ocean Biology
 - a. Phytoplankton
 - b. Primary production
12. Animal Phyla
 - a. Zooplankton
13. Food Webs
 - a. Fishes
 - b. Sharks
14. Marine Mammals
15. Special Habitats
 - a. Estuaries
 - b. Coral reefs
16. Ocean Pollution
 - a. Coral reefs
 - b. Food from the sea
17. Fisheries
 - a. Mariculture

ASSIGNMENTS:

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READING ASSIGNMENTS:

Students will be required to read and study assigned chapters in the textbook and read at least five articles from an approved list of periodicals. Examples of appropriate recommended reading are: Scientific American; Science; Omni, and Oceanus.

WRITING ASSIGNMENTS:

Students are required to research and write at least five one-page abstracts from an approved list of periodicals.

OUTSIDE ASSIGNMENTS:

Six hours of independent work must be completed outside of class each week. This work includes studying lecture discussions, answering questions presented in class, writing periodical abstracts, and answering questions in the textbook.

ASSIGNMENTS THAT DEMONSTRATE CRITICAL THINKING:

Students must interpret lecture discussions and demonstrate understanding by successfully completing required exams. Completion of abstracts requires scientific thought and appraisal.

METHOD OF INSTRUCTION:

Lecture, slide presentations, discussion, handouts, films and reading assignments.

FOR DISTANCE EDUCATION COURSES:

The content of this course is delivered using some form or forms of distance technology such as television, videotape, audiotape, or the Internet. For telecourses, no less than 11 hours of personal contact between instructor and students shall be included through: group or individual meetings; orientation and review sessions; supplemental seminars or study sessions; field trips; library workshops; or other in-person activities.

For on-line courses, instructor/student contact may take place in a face-to-face setting and/or through e-mail or other electronic means. Students may interact with each other through in-person study groups, electronic

message boards, or other means.

METHODS OF EVALUATION:

The grade will be based on at least three semester exams plus the final exam and at least five abstracts. Relative weighting is as follows: 60%- Semester exams; 20% - Final exam; 20% -Abstracts.

BASIS FOR GRADING:

The assignment of a grade is based on the level of achievement of the outcomes and objectives of the course outline and is reflected in quantifiable terms in the course syllabus.

REPRESENTATIVE TEXTBOOKS:

Essentials of Oceanography, Thurman, 4th edition, MacMillan Publishing Co.

RATIONALE

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RESOURCES REQUIRED

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MISCELLANEOUS

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Advisory generate desc:	N	NO
Area department:	BIO	BIOLOGICAL SCIENCES
Audit flag:	N	NOT AUDITABLE
Basic skills:	X	NOT BASIC SKILLS
Classification:	A	Liberal Arts and Sciences
Cost level:	01	
Disciplines:		BIOLOGICAL SCIENCES
Division:	02	MERIDITH RANDALL
Faculty service areas:		BIOLOGY
Fee:	\$0.00	
In-service:	X	NOT IN-SERVICE
Level below transfer:	X	NOT APPLICABLE
Matric-requiring:	X	Exempt from assessment
Maximum class size:	0	
Maximum wait list:	0	
Method of instruction:	02	LECTURE
	99	OTHER/UNSPECIFIED METHOD OF INSTRUCTION
	63	TV/VIDEO 1-WAY; PASSIVE
Non-credit category:	X	NOT APPLICABLE, CREDIT COURSE
Open entry/exit:	N	Not open entry/exit
Pacs activity:	0401	BIOLOGY GENERAL
Pacs program project:	0000	
Preq/coreq generate desc:	N	NO
Preq/coreq provisional:	N	NO
Preq/coreq reg check:	N	NO PREREQUISITE RULES EXIST
Repeat group id:		
Requires instructor sig:	N	INSTRUCTOR'S SIGNATURE NOT REQUIRED
SAM classification:	E	Non-occupational
Selected/special topic:	N	NOT A SELECTED TOPIC COURSE
Special class:	X	NOT A SPECIAL COURSE
TOP code:	1919.00	OCEANOGRAPHY
Workload:	0.0000	