Biology Department

Point Loma Nazarene University

BIO495: Special Studies in Biology (Introduction to Oceanography)

1 unit

"Here is the sea, great and wide, which teems with creatures innumerable, living things both small and great. There go the ships, and Leviathan, which you formed to play in it. These all look to you, to give them their food in due season."

– Psalm 104:25-27

Spring 2018

Meeting days & times: Attendance at weekly scheduled meetings is required. The instructor and student will set up a mutually agreeable time to meet.	**Instructor:** Dr. Walter W. Cho
	Phone: x2398
Meeting location: Rohr Science 106	**E-mail:** waltercho@pointloma.edu
Office hours: Rohr Science 106; Tues. 1:30-3:30PM, Thurs. 10AM-12PM, or by appointment	

PLNU Mission

To Teach ~ To Shape ~ To Send

Point Loma Nazarene University exists to provide higher education in a vital Christian community where minds are engaged and challenged, character is modeled and formed, and service is an expression of faith. Being of Wesleyan heritage, we strive to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

COURSE DESCRIPTION

From the course catalog:

Individual study in depth of a selected biology topic under the direct supervision of a member of the faculty. Offered every year.

Prerequisite(s): Consent of instructor and department chair.

In this course we are going to study one part of God's amazing creations, the oceans and the organisms within it. This course is designed to supplement a basic knowledge of marine biology and oceanography and apply that knowledge to a specific habitat within the oceans. Upon completion of this course, you will have a greater understanding of the ocean environment and its inhabitants, as well as a greater appreciation for the beauty and wonder of God's Creation around us.

COURSE LEARNING OUTCOMES

Students will be able to:

- Apply the basic principles of Oceanography and Marine Biology to analyze the biology, ecology and conservation of organisms and communities found in coral reef ecosystems.
- Analyze, discuss, and summarize papers from the current peer-reviewed literature on coral reef ecosystems and related issues.

COURSE SCHEDULE AND ASSIGNMENTS

WEEK	CLASS CONTENT OR ASSIGNMENT
1	Meet with Dr. Cho to discuss goals of Independent Study
2	A reef in time, Ch. 1, 2
3	A reef in time, Ch. 3, 4
4	A reef in time, Ch. 5, 6
5	A reef in time, Ch. 7, 8
6	A reef in time, Ch. 9, 10
7	A reef in time, Ch. 11, 12
8	A reef in time, Ch. 13, 14
9	A reef in time, Ch. 15, 16
10	Journal Article 1
11	Journal Article 1
12	Journal Article 2
13	Journal Article 2
14	Journal Article 3
15	Journal Article 3

REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES

1. Veron, J. E. N. (2008). *A reef in time: The Great Barrier Reef from beginning to end.* Cambridge, Mass: Belknap Press of Harvard University Press.
2. Additional reading and articles as assigned for discussions.

ASSESSMENT AND GRADING

Assignment distribution by points:

• Attendance and participation in weekly meetings	25 pts
• 8 summaries from A reef in time	80 pts
• 3 article analyses of Journal Articles	45 pts
Total points	150 pts

Grade scale:

A=93-100	C=73-77
A-=92-90	C-=70-72
B+=88-89	D+=68-69
B=83-87	D=63-67
B-=80-82	D-=60-62
C+=78-79	F=00-59

FORMAT OF COURSE

We will have an introductory meeting to go over the course format and discuss any details or modifications to make the course the most valuable independent learning experience possible.

Meetings 1-9 will be used to go through A reef in time reading, approximately 2 chapters a week. The student will write 8 summaries of the weekly readings from A reef in time, due on Canvas before the weekly meeting. The summary should adhere to the following criteria:

- minimum of one page
- 1.5 spacing
- 11-12 point font, maximum 1-inch margins

Each summary will address the following questions:

1) What are the main points of the reading?
2) What insight or perspective does this information provide for the study of marine biology?

After we read A reef in time, the student will read 3 journal articles selected on the basis of the weekly meetings. An optional field trip or presentation may replace one of the journal article discussions. Meetings 10-15 will be used to go through each of the journal articles. The student will complete an article analysis of each of the articles, format to be distributed later. Each analysis will address the following questions:

1) What are the main claims of the authors of the paper?
2) What specific evidence do the authors provide to support their claim?
3) What is the justification of how the evidence supports the authors' claims?
4) What methods were used in the paper?
5) What insight or perspective does this information provide for the study of marine biology?

INCOMPLETES AND LATE ASSIGNMENTS

All assignments are to be submitted/turned in by the beginning of the class session when they are due—including assignments posted in Canvas. Incompletes will only be assigned in extremely unusual circumstances.

Regular assignments turned in late will be graded as follows: 5% reduction per day up to 3 days late; more than 3 days late = no credit.

FINAL EXAMINATION POLICY

Successful completion of this class requires taking the final examination **on its scheduled day**. The final examination schedule is posted on the Class Schedules site. No requests for early examinations or alternative days will be approved.

PLNU COPYRIGHT POLICY

Point Loma Nazarene University, as a non-profit educational institution, is entitled by law to use materials protected by the US Copyright Act for classroom education. Any use of those materials outside the class may violate the law.

PLNU ACADEMIC HONESTY POLICY

Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. Academic dishonesty is the act of presenting information, ideas, and/or concepts as one's own when in reality they are the results of another person's creativity and effort. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for that assignment or examination, or, depending on the seriousness of the offense, for the course. Faculty should follow and students may appeal using the procedure in the university Catalog. See Academic Policies for definitions of kinds of academic dishonesty and for further policy information.

PLNU ACADEMIC ACCOMMODATIONS POLICY

If you have a diagnosed disability, please contact PLNU's Disability Resource Center (DRC) within the first two weeks of class to demonstrate need and to register for accommodation by phone at 619-849-2486 or by e-mail at DRC@pointloma.edu. See Disability Resource Center for additional information.

PLNU ATTENDANCE AND PARTICIPATION POLICY

Regular and punctual attendance at all classes is considered essential to optimum academic achievement. If the student is absent from more than 10 percent of class meetings, the faculty member can file a written report which may result in de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice until the university drop date or, after that date, receive the appropriate grade for their work and participation. See Academic Policies in the Undergraduate Academic Catalog.