

## BIOL-104 Oceanography – Online

# Course Description

Please print out this course description and read it before proceeding with the course.

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### Course Description

This course is designed to introduce the student to the four major disciplines in ocean sciences: biological, chemical, geological and physical oceanography. These areas are studied by describing the composition of the oceans and then by examining the major processes which are active there, such as plate tectonics, ocean circulation, wave and tidal action and food webs. In addition, the course will cover man's use of the ocean as a natural resource and as a waste disposal site. (3 hours weekly).

**Prerequisites** This course requires good reading, writing, and mathematical skills. Before enrolling in BIOL-104 you should have satisfactory assessment tests scores and/or completed any remedial coursework in English and math.

### Course Objectives

After completing this course you will be able to

- Describe the origin of the solar system, the Earth, and the ocean basins.
- Compare and contrast historical and current ocean related measurement techniques.
- Describe the unique properties of water and sea water in particular.
- Demonstrate an understanding of the physical and chemical processes that affect the character of beaches and shorelines in general.
- Appreciate the biological adaptations of organisms living in the intertidal region.
- Discuss the concept of plate tectonics and how it unifies many marine geological observations.
  
- Compare and contrast active and passive continental margins.
- Visualize the topography of the sea floor.
- Define the classification of island types.
- Describe the Earth's radiation balance and how that drives atmospheric circulation.
- Recognize the processes that drive oceanic circulation.
- Discuss how waves are formed and why they break.
- Identify the forces responsible for tides.
- Classify and describe marine plankton.
- Recognize the hierarchy of marine organisms.
- Recognize and discuss the various adaptations of marine organisms.
- Identify methods of symbiosis.
- Demonstrate and understand the behavior of light and sound in the open ocean.
- Compare and contrast the tropics and polar oceans.
- Articulate the problems and issues associated with exploitation of biological and mineral resources from the sea.

This list is not meant to be comprehensive or chronological. More specific objectives will be given with the lecture material.

### Required Texts and Materials

Textbook: Oceanography: An Invitation to Marine Science, 6<sup>th</sup> ed., by Tom Garrison, Belmont: Brooks/Cole, 2007.

Study Guide: The Endless Voyage Study Guide, 3<sup>rd</sup> ed., by Paul Billeter and Robert Given, Belmont: Brooks/Cole, 2007.

### Course Format

- This course is not self-paced. The course material is sequential. Assignments are to be completed in the order they are assigned.
- This course does not require on-campus meetings, except for one orientation session at the beginning of the semester and exams that will be taken throughout the semester in the Test Center during the week assigned. (For more information on taking exams, see the "Exams" section below).
- This course does not require real-time chats.
- This course does require weekly assignments and posting to the class Bulletin Board.
- Some of the types of learning activities or assignments that the student will be required to complete are:

### Activities and Assignments

- Read weekly assigned textbook pages and answer questions pertaining to the material.
- View two 30 minute video lessons each week which can be accessed any of HCC-TV, on reserve in the HCC Library, or online through streaming video.
- Complete a web activity at home and discuss your results online with the class.
- Complete a hands-on activity at home and discuss your results online with the class.
- Read reference material provided by the instructor and discuss the reading with the class.
- There is a specific timeline for the completion of each assignment in this class. In general you will have one week to complete activities and assignments.
- Guidelines and deadlines for each assignment will be posted on the calendar and bulletin board. It is your responsibility to know the course schedule and plan accordingly.
- Late assignments received within one week of the due date will be graded and a 50% late penalty deducted. Any assignments received more than one week after the due date will be graded for zero credit. Early assignments are cheerfully accepted!

### Weekly Discussion Assignments

Weekly responses must be posted in the appropriate WebCT class discussion topic by the deadline noted in the course schedule. In addition, sometimes students will be required to respond to at least two fellow student's responses. Following the deadline each week that discussion topic will be closed so that no more responses may be posted. In an online class, these postings and reactions are how we establish a dialogue in the class, so they are a very important part of the course. See Guidelines for Weekly Postings under the Weekly Assignments section of the Course Content page.

### Exams

- You will be required to take on-campus proctored exams. All exams are closed

book/closed note and must be taken in the HCC test center or at another approved test center.

- The syllabus and calendar will list due dates for exams. It is your responsibility to know the course schedule and plan accordingly.
- Students are expected to take each exam in the scheduled time frame. You will have a window of at least three days in which to take each exam. No make-up exams will be given after the deadline has passed.

## Required Viewers, Plug-ins, or Players

- Visit the [Distance Learning homepage](#) and use the link provided in the “Support for Registered Students” area link to download plug-ins. The following plug-ins are required for this class:
  - Acrobat Viewer
  - Excel Viewer, if you don't have the full version of Microsoft Excel
  - Flash
  - Internet Explorer
  - Java installed and enabled
  - PowerPoint Viewer, if you don't have the full version of Microsoft PowerPoint
  - QuickTime
  - Real Player
  - Windows Media Player
  - Word Viewer, if you don't have the full version of Microsoft Word

## Class Communications: What to Expect from Your Instructor

- I will read assignments/discussion forums and provide comments/responses once daily Monday through Friday.
- Your activities and assignments will be graded within 7 days following the due date.
- Your exams will be graded within 7 days following the deadline.
- The fastest and best way to reach me is by e-mail. I read and respond to messages once daily Monday through Friday.
- Please email me if you would like to make an appointment to go over work in progress, clarify points you do not understand, or talk about the subject matter in general. Meetings may be conducted by telephone or in person at a mutually convenient time.

## Grading Procedures

**Grades will be determined on the basis of a point system. You must complete all required assignments as outlined in order to pass the course.**

- All assignments are due on the dates shown in the class syllabus and calendar.
- Weekly participation is required in this class.
- Assignments that are turned in late will have points deducted.
- On-campus exams must be completed during one of the dates and times provided.

## Course Policies Assignment Format and Documentation Requirements

Your papers will be submitted to me in WebCT Course E-Mail and should be sent as a Microsoft Word (or .txt or .rtf file) attachment to ensure readability by me.

## Student Responsibility

Students are responsible for maintaining copies of all of their written work on your computer or on floppy disk in case of the need for retransmission. Students are responsible for keeping the instructor informed in the event of emergencies or unusual circumstances leading to extended absence from class participation. See the phone no. at the top of this syllabus.

### **Extra Help in Writing**

If you feel the need for more guidance with your writing, there are several places to go. You can see me during my office hours, or schedule an appointment. Go to the Write Room. If you need more help using the computers, HCC offers free Word classes, and there are tutors available during the Open Writing Lab hours in the ILB building.

### **What to Do If You Need Help**

#### **About the Course**

If you have questions about your course (assignments, due dates, problems completing assignments, how to submit assignment or navigate the WebCT course site, etc.), you should contact me by email or by phone. The HCC Help Desk cannot answer questions about specific course content.

#### **Help in WebCT**

WebCT has a built-in Help that can be accessed from any page in your course. Look for the Help link at the top of each page.

#### **Difficulty Logging on to WebCT:**

If you are having difficulty logging on to WebCT and you know it is not a result of problems with your Internet Service Provider or your browser, contact:  
Help Desk: [General Information](#) or [this form](#) to request help.

Student Computer Support now staffs a help desk. Students and faculty may call 410-772-4444 between 8:00 a.m. and 11:00 p.m. Monday through Thursday and 8:00 a.m. and 10:00 p.m. Friday to report problems. After hours, students and faculty may leave a message at the same number. Student Computer Support staff will handle the problem or direct it to the correct person to handle.

When leaving a message, be sure to leave your name, the course you are enrolled in, your course instructor's name, your phone number, your e-mail address, and a description of the problem. Be sure to speak slowly so staff can easily take down your message.