

**UNIVERSITY OF NORTHERN COLORADO
OFFICE OF EXTENDED STUDIES
COLLEGE OF NATURAL AND HEALTH SCIENCES**

PREVIEW SYLLABUS ONLY as of 10/2/07 (Subject to change and update in the online format)

OCN 110-932 Our Ocean Systems (3)

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Course Objective

This course introduces students to what mankind is achieving today on the ocean that covers almost 70% of our planet. Topics are chosen from current news-making events, historical aspects of oceanography and modern scientific oceanography. OCN 110 OUR OCEAN SYSTEMS is a 3 semester hour Liberal Arts Core/General Education course that meets a category 6 or 6a requirement in the UNC LAC/GE program, respectively.

This course is **NOT** a laboratory course, so if you need a science laboratory course, you will need to choose another course. UNC has a variety of lab science courses, but I am not aware of any online yet. Consult a current UNC schedule of classes for offerings. Contact me for other details about the UNC Liberal Arts Core/General Education requirements if you need advice.

Textbook

USE WHATEVER VENDOR OR SOURCE YOU LIKE TO GET THE TEXT.

TEXTBOOK: Alan P. Trujillo and Harold V. Thurman, ESSENTIALS OF OCEANOGRAPHY, Ninth (9th) Edition, Pearson/Prentice-Hall, Inc. Upper Saddle River, NJ, 534 pp., ISBN 0-13-240122-3. More expensive, but easier to find and available through most booksellers (publication printings 2005 and 2008).

Note: This text may be obtained from the vendor of your choice. Online booksellers may have used copies—as of 10/2/07 the online price for a used copy, including shipping, was \$78.37 (but as time goes on it should get considerably cheaper as the 9th edition get older and more available as a used book). It contains supplementary materials, including maps, charts, diagrams, figures, and other materials you will need for the course. Although most of the instructional material for the course is right here on the Blackboard site, the text will fill out the visual and graphics part of the course so critical to your understanding and enjoyment.

Course Description

You will study various aspects of people and technology concerning the oceans, including foods and minerals, coastal erosion, submersibles, diving, recent technological developments, pollution and international political implications. Special interest topics are presented as well.

Additional Instructional Materials

Videotapes - You are welcome to avail yourself of videotapes on oceanographic topics from local libraries, video stores, personal collections, TG programs or web pages over the internet. Some libraries lend their videotapes through interlibrary loan services. In addition to the videotapes that you may find at your local library or available by Interlibrary Loan, your local video stores such as Blockbuster or Showtime usually will have a variety of movies and documentaries about sea life and the oceans. Take the time to check what they have and take some home to watch. Specific titles are recommended for some units.

Maps - Use any atlases and other maps you have available, especially those published since about 1980. Your textbook has a good ocean floor map with clear labels (it is just inside the front cover of the text).

Bibliography

Hopefully, your local library will have all or some of the following sources of background information.

"National Geographic," the Journal of the National Geographic Society, Washington, D.C. This is an excellent general source on a wide variety of ocean organisms, habitats and issues. The February, 1994 issue contains a detailed ocean floor map.

Cousteau Society publications:

"Calypso Log" is a magazine published bimonthly that summarizes society research projects.

"Dolphin Log" is a magazine written for children, also published bimonthly.

"Oceanography" is a journal published by the Oceanography Society 4 times a year. This publication, first published in 1991, presents a comprehensive range of sophisticated research reviewed for a generalist audience with excellent graphics and clear writing

"Sea Frontiers (Sea Secrets)" is a magazine published bimonthly by the International Oceanographic Foundation. It reviews a wide variety of oceanographic research and is copiously illustrated.

Scientific Journals - If you do not have access to a library, you might talk to one of your local high school science teachers to see if they subscribe to one of the journals listed above.

World Wide Web resources via the internet. Under the "COURSE MATERIALS" portion of the course, there is an entry at the bottom of the list of units and exams which gives you a wide variety of web addresses of reputable sources. Especially useful are web pages with a quote "gov" (government) or "edu" (colleges and universities) designation. Two particularly useful search engines for oceanography topics are <http://vivissimo.com> and <http://www.studyweb.com>

Oceanography textbook publishers maintain useful web pages (e.g. <http://www.prenhall.com/thurman> ; <http://www.prenhall.com/oceanissues> ; <http://www.wcbp.com/earthscience/oceanography>). Stick those three bookmarks on your web browser right away and don't forget they are there!! I'll try to provide direct links to those web sites, especially the second one (which contains information about EIO projects (Environmental Issues in Oceanography)).

In addition to your required textbook, the following books provide a rich resource. These are just examples--you may find many other useful and interesting materials as well.

Skinner, Brian J. and Turekian, Karl K. Man and the Ocean. Prentice-Hall: Englewood Cliffs, NJ. 1973.

Pirie, R. Gordon, ed. Contemporary Readings in Ocean Sciences. Third Edition. Oxford University Press. New York. 1996.

Pilkey, Orrin H., Jr., Pilkey, Orrin H., Sr., and Turner, Robb. How to Live with an Island. North Carolina Department of Natural and Economic Resources. Raleigh. 1975.

Menard, H. William and Schieber, Jane L., eds. Oceans: Our Continuing Frontier. Publishers, Inc: Del Mar, California. 1976.

Duxbury, Alyn C. and Alison B. Introduction to the World's Oceans. W.C. Brown. Chicago, IL. 1997.

If you live in or visit Colorado, several large federal government oceanographic laboratories are located in the Denver/Boulder area. All are located in Boulder except the United States Geological & Biological Survey which is located in Lakewood at the Denver Federal Center. They include the National Aeronautics & Space Administration (NASA), the National Center for Atmospheric Research (NCAR) (contact is Rene Munoz), the National Oceanic and Atmospheric Administration (NOAA) (contact is Barb Poppey or Barb McGehan). The University Corporation for Atmospheric Research (UCAR), a university consortium, is also located in Boulder. Contact these agencies for information on tours that are available.

DUE DATES & Course/Content Outline

THIS COURSE WAS DESIGNED TO BE COMPLETED IN SIX WEEKS, BUT THE BEAUTY OF INDEPENDENT STUDY IS THAT YOU MAY DO IT QUICKER OR SLOWER IF YOU LIKE. SEE

RESTRICTIONS ON MAXIMUM TIME LIMITS FOR COMPLETING THE COURSE (I BELIEVE YOU HAVE A MAXIMUM OF ONE YEAR FROM THE START DATE OF THE COURSE). THE UNITS BELOW CAN BE ACCESSED BY CLICKING "COURSE DOCUMENTS" ON THE COURSE MENU BARS.

Unit I: Introduction

Unit II: Marine Geography Discussion Quest.1

Unit III: Ships and Subs, U.S.S. Monitor Question 2

Unit IV: Physical Oceanography Question 3

Unit V: Coastal Zones Question 4

Unit VI: Plate Tectonics Question 5

Unit VII: Oceans and the Air Question 6

Midterm Exam (Units I-VII) TAKE WHEN YOU ARE READY

Unit VIII: Biological Oceanography and Coral Reefs Discussion Board Question 7

Unit IX: Mariculture/Aquaculture

Unit X: Sea Mammals

Unit XI: Chemical Oceanography Question 8

Unit XII: Natural Resources Questin 9

Unit XIII: The Law of the Sea (Due: 6/16)

Unit XIV: Legal Aspects of Mariculture

Unit XV: Ocean Management Question 10

Final Exam (Units VIII-XV) TAKE WHENEVER YOU ARE READY

NOTE: Final course grades will be assigned WHEN YOU FINISH THE FINAL EXAMINATION OR SHORTLY THEREAFTER. AS SOON AS YOU FINISH THE FINAL, CHECK YOUR FINAL SCORE FOR THE COURSE. USING THE GRADING SCALE BELOW UNDER GRADING, DETERMINE WHAT YOUR FINAL GRADE WOULD BE. IF THAT IS SATISFACTORY, YOU NEED NOT DO EXTRA CREDIT, AND YOU NEED NOT CONTACT ME ABOUT DOING EXTRA CREDIT. BUT IF YOU WISH TO IMPROVE YOUR GRADE, TELL ME THAT YOU WILL DO EXTRA CREDIT AND FOLLOW THE INSTRUCTIONS TO ACCOMPLISH THAT (AND WHEN YOU EXPECT TO HAVE THAT DONE). If you are not done with the course due to illness or other emergency, you might qualify for an incomplete. Otherwise, you will get the grade you earn. SINCE WE DO NOT MEET EACH DAY, YOU WILL NEED TO TAKE INITIATIVE TO GET THE WORK DONE ON A REASONABLE SCHEDULE.

Course Requirements

1. View the online Slide Shows (no audio available) at the beginning of some units (Introduction, Units III, IV, V, VIII, and IX) to introduce the topics. Slide shows that exist are noted in each unit you enter (but only for the six units noted above).
2. Read the online "COMMENTARIES" for each unit. Answer the "STUDY QUESTIONS" immediately following the commentaries, and get immediate feedback on how you are doing. The midterm and final exams are made up of these "STUDY QUESTIONS"!!! This is clearly the guts of the course and what you really need to pay attention to! Know the answers to those "Study Questions" and you will do reasonably well in the course.
3. Make written Comments in the ten (10) "Discussion Board" entries in answer to the ten questions asked. Only 10 of the 15 Units have "Discussion Board" questions. You may work ahead ahead of the Units in the "Discussion Board" questions--they are only loosely tied to the commentaries.
4. Scan the textbook reading assignments (especially figures, diagrams, charts, graphs, photographs, etc.) from Thurman and Trujillo ESSENTIALS OF OCEANOGRAPHY. Text readings are critical in that they contain graphics, maps, photos, and diagrams not found in the commentaries that follow. Answering the "Questions and Exercises" at the end of the textbook chapters is not required. However, answering those questions will help your overall understanding!
5. Complete open book, timed midterm and final examinations. Plan to take your midterm after Unit VII. The final exam will not be comprehensive and will include only Units VIII - XV. See Course/Content Outline above.
6. Complete as many of the viewing assignments as possible, as your time and interest allow.

7. EXTRA CREDIT PROJECTS:

If you wish to go above and beyond the course requirements (or wish to possibly improve your overall score in the class to raise your final course grade)

I will offer extra credit projects as follows, at 3 points each (there are 8 extra credit "Environmental Issues in Oceanography" projects X 3 points each =24 extra credit points possible--see GRADING below):

Environmental Issues in Oceanography by Dan Abel and Robert McConnell, 2002, Second Edition, is available online at the following URL

http://wps.prenhall.com/esm_abel_issuesocean_2

1. Coastal Population Growth
2. SONAR and Whales
3. Methane Hydrates: Energy Boom of Climate Bust?
4. Toxic Chemicals in Seawater
5. The Lasting Influences of Hurricanes
6. Beaches or Bedrooms? The Dynamic Coastal Environment
7. Illegal Immigration: Ballast Water & Exotic Species
8. Lifestyles of the Large and Blubbery: How to Grow a Blue Whale

IF you wish to do any of these for extra credit, they must be e-mailed to me William.Hoyt@unco.edu by following this procedure:

Go to the website above and choose the Issue you wish to do. When you are ready to answer the questions in the activities, COPY THEM ONTO YOUR CLIPBOARD BY CHOOSING THE EDIT FUNCTION IN YOUR BROWSER WINDOW. THEN, OPEN MICROSOFT WORD OR WORDPERFECT AND PASTE THE QUESTIONS INTO THE WORD PROCESSING PROGRAM. WRITE YOUR ANSWERS, AND COPY THE QUESTIONS AND THE ANSWERS BACK ONTO THE CLIPBOARD. PASTE THAT INTO AN E-MAIL MESSAGE OR DO AN ATTACHMENT TO ME AT:

William.Hoyt@unco.edu

When you (the student) have completed all course requirements, please notify me (the instructor) and ask to have your final grade submitted to the Office of Extended Studies as soon as possible. The Office of Extended Studies will see that the grade is recorded.

Grading

A total number of 200 points can be earned in this course (plus opportunity for extra credit as described herein).

75 points - MIDTERM EXAMINATION

75 points - FINAL EXAMINATION

50 points - "DISCUSSION BOARD" QUESTIONS 10 questions at 5 points each = 50 points. Discuss 10 important questions that are in 10 of the units (II, III, IV, V, VI, VII, VIII, XI, XII, AND XV). Your textbook has information pages for each of the 10 questions.

EXTRA CREDIT "ENVIRONMENTAL ISSUES IN OCEANOGRAPHY" (see above for how to do this). But DON'T even think about doing these until you have accomplished the REQUIREMENTS of the course as described above.

GRADING SCALE FOR THE COURSE

A = 187 or more points

A- = 180-186 points

B+ = 173-179 points

B = 167-172 points

B- = 160-166 points

C+ = 153-159 points
C = 147-152 points
C- = 140-146 points

D+ = 133-139 points
D = 127-132 points
D- = 120-126 points

F = 119 or fewer points

These are the general guidelines I plan to use for grading purposes.

When you (the student) have completed all course requirements, please notify me (the instructor) and ask to have your final grade submitted to the Office of Extended Studies as soon as possible. The Office of Extended Studies will see that the grade is recorded.

Browsers, Plug-Ins, Players and Viewers

[Link to File](#) (3.011 Kb)

To take full advantage of all the features in this course, be sure you have the right technology at your fingertips. This includes a good Web browser and appropriate plug-ins.

Special Needs/Disability Accommodation Statement

Students who believe that they may need accommodations in this course are encouraged to contact the Disability Support Services at 970-351-2289 as soon as possible to ensure that accommodations are implemented in a timely fashion.

Academic Conduct Statement

When you enroll in a UNC course through Independent Study, you become subject to certain expectations and policies concerning your academic conduct. Definitions and details are available in the **UNC Student Handbook**, which can be viewed on the web at

http://www.unco.edu/dos/handbook/academic_expectations.html

http://www.unco.edu/dos/handbook/student_conduct_code.html

Selected paragraphs from the sections on **Academic Expectations Related to Student Conduct** and **Disciplinary Actions and Procedures** are printed here.

In order to encourage and foster academic excellence, the University expects students to conduct themselves in accordance with certain generally accepted norms of scholarship and professional behaviors. Because of this expectation, the University does not condone any form of academic misconduct. Academic misconduct includes but is not limited to plagiarism, cheating, fabrication, and knowingly or recklessly encouraging or making possible any act of plagiarism, cheating, or fabrication. Academic misconduct is an unacceptable activity in scholarship and is in conflict with academic and professional ethics and morals.

Consequently, students who are judged to have engaged in some form of academic misconduct may be subject to (1) a zero or an "F" on the work in question, (2) an "F" in the course, (3) other academic penalties as outlined in the professor's course requirements and expectations, (4) disciplinary action as specified in the Sanctions for Misconduct section below [please refer to the handbook], or (5) any combination thereof. Procedural due process, including the right to appeal, is to be followed in making a determination of whether academic misconduct has occurred.

Students who violate University Standards of Conduct are subject to disciplinary action. The administration of this action shall provide procedural fairness to an accused student or recognized student organization. The procedure will afford appropriate process which will be educational and developmental in nature. An adversarial relationship between the accused and the University will be avoided.

Independent Study Online Student Guide

[Online Student Guide](#) (58.5 Kb)

Library Resources and Services

LIBRARY RESOURCES AND SERVICES:

Library Access and Use

Independent study students who live outside a 50-mile radius of Greeley are extended many of the same library services available to their on-campus counterparts. These services include remote access to electronic resources, instruction in the use of libraries and library resources, reference assistance, and access to/delivery of library materials not available in local area libraries. See www.unco.edu/library/distance/online.htm for details.

Students who live within the 50-mile radius are expected to visit the UNC Michener Library in person. To borrow materials from the Michener Library in person, bring positive identification and your confirmation/receipt from registration for your independent study course.

Use your local area libraries as your primary resource. When there is a choice, you should use an academic library since it is more likely to have the indexes and other resources you will need for college-level research. Because many libraries now provide dial-in access, you can search various library databases from your own home or business, at your own convenience, if you have access to a computer with a modem.

If the materials you need are not available in your local area libraries or if you need additional assistance, contact the UNC Michener Library.

When placing requests, please remember to include the complete citation information.

Check the UNC online catalog (for books or journals) or UnCover (for journals) to make sure that UNC owns an item before you request it. Not only will this speed up the process, it will ensure that the materials you want are available through UNC.

You may request materials 24x7 by
-- e-mailing library.ocp@unco.edu
-- faxing 970-351-2540

For other library assistance and instruction, phone 970-351-2562.