

**LAGUARDIA COMMUNITY COLLEGE
NATURAL SCIENCES DEPARTMENT**

INTRODUCTION TO OCEANOGRAPHY – SCG120

COURSE DESCRIPTION:

This course serves as an introduction to Oceanography. It will explore the basic physical, chemical, biological and geological processes of the world's oceans. Topics will include the formation and evolution of oceans, coastal interactions, waves, tides and marine biology, with a consideration of human impact on marine environments.

Pre-requisites: CSE099, ENA/ENG/ESA099, MAT096. This is a 3-hour, 3-credit course

Textbook: Essentials of Oceanography, 2013. Trujillo and Thurman, Eleventh Ed. Pearson ISBN-13 978-032166812/ISBN-10 0-32166812-X.

- Older editions are fine
- Other oceanography textbooks are fine also

COURSE OBJECTIVES:

- Have general knowledge of oceanography and how it is practiced
- To integrate all specific concepts of oceanography into a multidisciplinary analysis of the Earth and its beginnings
- To stimulate students' interest and curiosity in the many and varied sciences used in the study of the ocean

COURSE REQUIREMENTS AND POLICIES:

- Attendance is required as most information for exams and homeworks will come from lectures.
- Read the chapters BEFORE coming to class to become familiar with scientific terms, principles and overall subject.
- All mobile phones and pagers MUST be turned off or silenced
- Grading System:
 - 3 lecture exams (20% each)
 - 4 Homework assignments (5% each)
 - 1 term assignment (20%)
- Each exam will roughly cover one-third of the course material
- Students are responsible for arranging make up exams and any other coursework
No late work will be accepted without previously speaking to the instructor
- Lecture slides, grades, announcements and email correspondence will be available on Blackboard

Term assignment: A one-paragraph summary taken from articles from print media (scientific secondary literature, newspaper, magazines, reputable internet websites, etc). The material for this assignment will relate to the various topics explored during

class. Continuous feedback throughout the semester will be given on the progress, selection of articles and writing content. The purpose of this assignment is to bring to light, the range and frequency of oceanography/ocean sciences issues that impact the world. This assignment will be due every week. A total of 12 assignments will be collected in order to obtain full credit.

ACADEMIC INTEGRITY

Appropriate student behavior is expected at all times. Please note that dishonesty will not be tolerated. Please consult the College's Academic Integrity Policy in the College Catalog or at <http://library.laguardia.edu/files/pdf/academicintegritypolicy.pdf>

SCHEDULE OF LECTURES AND EXAMS (Approximately)

- Week 1 Introduction to Oceanography, Planet “Earth” and the nature of science
- Week 2 Plate Tectonics and the Ocean floor
- Week 3 **HW #1 due**
Marine Provinces and features on the seafloor
Marine Sediments and their characteristics
- Week 4 **Exam #1**
Water and seawater
- Week 5 Air/Sea Interaction
- Week 6 **HW #2 due**
Ocean Circulation
- Week 7 **Exam #2**
Waves and water dynamics
- Week 8: **HW #3 due**
Tides
The Coast: Beaches and shoreline processes
- Week 9: The Coastal Ocean
Marine Life and the marine environment
- Week 10: **HW #4 due**
Biological productivity and energy transfer
- Week 11: Animals of the pelagic environment
Animals of the benthic environment
- Week 12: The Oceans and Climate Change
- Week 13 **Term assignment due**
Lecture exam 3