

American University of Beirut
Faculty of Arts & Sciences
Department of Biology
Fall 2008 - 2009

Course number: Biol. 266
Course title: Oceanography: Introduction to Marine Science.
Meeting time & location: T; Th. 8:00 – 9:15; Phys 327

Instructor:

Name: Imad Saoud, PhD
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Book: Oceanography, An Invitation to Marine Science, 4th or 5th edition, by Tom Garrison.

Course description:

The present course is to introduce students to the basic concepts of oceanography and marine science. The course will focus on the chemical, physical and geological processes that affect life in the oceans and on planet earth in general. Additional topics such as environmental science, conservation, world fisheries, marine resources and effects of coastal development on life in the oceans will be discussed.

Learning objectives:

Students should understand how the world around them functions. I expect them to make parallels between organismal evolution, environmental tolerances, habitats and the environment, in context of physical and geochemical processes on planet earth.

Course learning outcomes and assessments:

By the end of the course the student should be able to

- Demonstrate knowledge of aquatic science vocabulary (exams).
- Demonstrate knowledge of oceanic realms and habitats (exams).
- Understand the environmental principles that influence body functions (exams).
- Demonstrate a scientific attitude and aptitude (class participation and discussion).

Grading:

Midterm	25%
Midterm	25%
Final	40%
Attendance	5% (Includes participation and answering questions in class)
Drop quizzes	5%

Course policies

Attendance

Class attendance is **mandatory**. Absence of a student does not exempt him/her from the responsibility of the work done or from any announcement made during the missed session. Students who miss classes excessively will be asked to drop from the course (AUB catalogue p 116). I take attendance sporadically at random, especially when the class feels a bit empty. Attendance is generally taken in a form of a short drop quiz. Be constantly ready.

Exams

Students are required to take all exams at the scheduled day and time. Failure to take an exam will result in grade of zero for the said exam.

Make up exams or an alternative arrangement will be at the discretion of the instructor.

N.B. Students are expected to be familiar and adhere to the student code of conduct (<http://pnp.aub.edu.lb/general/conductcode/index.html>). Cheating will be seriously penalized

Course content.

Topic	Chapter
1. A brief history of Oceanography.	2
2. Plate tectonics.	3
3. Continental margins and ocean basins.	4
4. Physical properties of sea water.	6
5. Atmospheric circulation.	8
6. Ocean circulation and currents.	9
7. Waves, wave dynamics and tides.	10, 11
8. Seawater Chemistry	7
9. Factors affecting life in the ocean.	13
10. Ecology of Primary producers.	14
11. Animals of the sea.	15, 16
12. Marine resources, medications, electricity, seaweed, agar, toothpaste, petroleum, manganese, etc.....	17
13. Environmental concerns	18