
LIFE IN THE SEA (BIOL 324) – FALL 2009 Syllabus

Instructor:	Dr. Kevin Hovel (Office: South life sciences building, room 352)
Phone:	(619) 594-6322
Email:	hovel@sciences.sdsu.edu
Office hours:	Tuesdays 9 – 11 AM and by appointment
Class schedule:	Lectures: Tuesday and Thursday 2 – 3:15 PM in SH 247
Required text:	<u>Introduction to marine biology, 3rd edition</u> , Karleskint, Turner, and Small
Class websites:	Blackboard (https://blackboard.sdsu.edu/webapps/login) Textbook website (http://www.cengage.com/biology/karleskint/intro3e)

Class overview and purpose

The world's oceans contain an incredible diversity of life. Much of the ocean depths remain unexplored, and we are continually learning more and more about the ecological and evolutionary forces that shape populations, species and communities in the sea. In this course, we will undertake an introductory exploration of the species that live in the sea, and the processes that control their abundance and distribution. We first will learn about the oceanic environment, in order to understand the environmental conditions within which marine species must exist. The second part of the course covers the major types of marine organisms, and we will discover how a variety of body plans have evolved in that allow marine organisms to grow, eat, move, and reproduce in a liquid medium. In the third part of the course, we focus on some key marine ecosystems, such as the rocky intertidal zone, coral reefs, and the deep sea. Our goal for this part of the course is to understand how the species in these ecosystems interact with each other and with the physical environment. The last part of the course focuses on human impacts on the life in the sea and marine conservation biology. We will learn about the ways that humans degrade the marine environment and threaten marine species, and most importantly, we will discuss solutions to the problems that people create.

Summary of course goals

After taking this course, you should be able to:

- describe the physical marine environment, including properties of seawater, how the oceans have formed, the major ocean currents, and how waves, currents, and tides are formed;
- describe the major phyla (types of organisms) that live in the sea, their adaptations to a marine existence, and their distribution and biology;
- describe the major marine ecosystems, the types of organisms that live in them, and how they interact with their environment;
- describe the major ways that humans harm marine life, and some solutions to the problems that we cause.

Grading

Your grade will be based on the percentage of total points earned on the exams, quizzes, and other assignments as indicated below. GRADING IS NOT DONE ON A CURVE.

A	90 - 100%
B	80 - 89%
C	70 - 79%
D	60 - 69%
F	< 60%

3 lecture exams, 100 points each.....	300
3 lecture quizzes, 25 points each.....	75
1 topic review, 75 points.....	75
Final exam, 150 points.....	150
TOTAL.....	600

Lecture exams will be multiple choice and will cover lecture material and readings from the textbook. You will be responsible for *both* lecture material *and* reading material for each exam. You will need to bring a green scantron (form #882-E) to class to take the exams.

Lecture quizzes will be given at the beginning or end of class on 3 dates throughout the semester and will cover recent lecture and reading material. If you have an unexcused absence on the day of a quiz you will receive a zero for that quiz. You will need to bring a green scantron “quizzstrip” (form #815-E) to class to take the quiz.

The **topic review** is an assignment in which you will choose among several topics that are of great concern for the health of the oceans and the life within them. To complete the assignment you will select one topic from the list, research the topic, and submit a 2-3 page review that includes a description of the problem, how the problem arose, what effects it has on marine life, and some possible solutions to the problem. References must be included.

The **final exam** will cover lecture and reading material assigned after the third exam, but also will include questions from the remainder of the course. Approximately 65% of the questions will be from the material covered after exam 3 and 35% will be on material covered before exam 3.

Supplementary materials

Your textbook publishers maintain a website that contains some supplementary materials such as practice quizzes, flashcards, and glossaries for each chapter. It is not required that you use these materials, but they may serve as useful study aids. I will be posting lecture notes on the Blackboard webpage before each lecture. My philosophy is that students should come to class to learn, rather than trying to absorb information from PowerPoint slides that are posted on the web. Therefore, the lecture notes that I make available to you contain only a “skeleton” of each slide, rather than the detailed information that is presented in class. They are intended to be used to help organize your lecture notes, not to substitute for material presented in lecture.

I also will post study guides before each exam. These will be simple lists of some of the major topics that I will be placing on exams. The study guides are not going to be a list of every question or topic on the exam. They are intended to help you focus your studying, but testing you would be pointless if I gave away all of the topics or questions on the exam.

Extra credit

I do not assign extra credit, so please do not ask me for extra credit assignments to help raise your grade. I feel strongly that extra credit is unfair to the majority of students in the class. At the beginning of the semester, each person in the class knows exactly how they will be graded and has the same opportunity to excel. I don’t believe in changing the rules after the course has begun.

Missed exams and assignments

Because you have been notified of the exact dates and times that each exam, quiz, or assignment is due, there is no excuse for missing a test or not completing an assignment. Thus, **there is a no make-up policy for this class**; no missed lecture exams or quizzes can be made up at a later time. I realize, however, that in rare instances, circumstances beyond your control could prevent you from completing an assignment (e.g., a medical or family emergency). If this is the case, the student will be expected to provide verifiable documentation or the reason he or she missed the assignment. The missed assignment will be dropped from the student's grade. I reserve the right to make a final judgment on whether an excuse is valid.

I do not accept assignments late without a valid excuse, even for fewer points. This is because it is unfair to other students who have handed their assignments in on time.

University policy provides students with excusable absences for observance of religious holidays. According to university policy, students must review the class schedule and notify instructors within two weeks of the start of classes (i.e. by September 14, 2009) if they foresee that the class requirements conflict with a religious observance. After September 14 I will not accept religious observance as an excuse for being absent or for failure to complete an assignment. It is never acceptable to request to be excused from an exam or quiz for religious reasons *after* the exam or quiz has been given.

Cheating and class conduct

Cheating will not be tolerated. A student found to be cheating on any assignment will receive a grade of zero for that assignment, and in accordance with university policy, will be reported to the office of student affairs. Note that expulsion from the university is a possible consequence of cheating. Cheating constitutes any situation in which a student claims another's work for their own; e.g., copying exam or quiz answers, or handing in plagiarized text in a homework assignment. I encourage you to review the university's policy on plagiarism: http://coursecat.sdsu.edu/0809/webfolder/440-454_U_Policies.pdf#page=14.

Please be considerate of other students and of me during lectures by not talking, listening to music, or doing other non-class related activities. You will be asked to leave if I see you being disruptive in lectures. Students also must be aware that coming late to class is disruptive to the instructor and to their fellow students. I expect students to be on time and will begin lectures on time. *Repeated lateness will be noticed and can result in a reduction of your grade.*

Faculty furloughs

The devastating California state budget cuts have resulted in faculty furloughs, which force all SDSU faculty members to forego working on two days of each month throughout the 2009/10 academic year. The faculty furlough prohibits faculty members from teaching, consulting or emailing with students, and even being on campus on the days each faculty member designates for furloughs. Two of my 9 furlough days occur on days scheduled for lectures: September 24 and November 3. On those days, classes and office hours are cancelled and telephone and e-mail messages will not be answered. Additionally, all SDSU staff are furloughed as well, which causes most University, College, and Department offices to close on the following days: Sept 11, 18; Oct 2, 16; Nov 13, 25; Dec 21, 22, 23, 24.

Nobody is pleased that furloughs have been implemented. To avoid faculty and staff furloughs at SDSU in the future, consider contacting your legislators in Sacramento so that they better understand how cutting the state budget for higher education affects your education and your future.

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Lecture schedule

Week	Date	Topic	Reading
1	01-Sep	Introduction to Life in the Sea	
	03-Sep	What is marine biology?	KTS 3-8
2	08-Sep	Ocean basins and provinces	KTS 45-64
	10-Sep	The nature of water	KTS 69-78
3	15-Sep	Ocean currents and waves	KTS 78-94
	17-Sep	Overview of life in the sea	KTS 109-121
4	22-Sep	Life histories of marine organisms	Supplement on Bb*
	24-Sep	FURLOUGH DAY (<u>no lecture</u>)	KTS 15-30
5	29-Sep	EXAM 1	
	01-Oct	The importance of larvae	Supplement on Bb*
6	06-Oct	Phytoplankton & zooplankton	KTS 142-144, 147-153, 464-467
	08-Oct	Sponges and cnidarians	KTS 191-206
7	13-Oct	Polychaetes and molluscs	KTS 218-239
	15-Oct	Arthropods and echinoderms	KTS 240-254
8	20-Oct	Big things: fishes	KTS 263-281
	22-Oct	Big things: fishes and other nekton	KTS 282-291, 301-305
9	27-Oct	EXAM 2	
	29-Oct	Big things: marine mammals	KTS 340-352
10	03-Nov	FURLOUGH DAY (<u>no lecture</u>)	KTS 325-340
	05-Nov	Marine mammals : exploitation	Supplement on Bb*
11	10-Nov	The rocky intertidal zone	KTS 356-375
	12-Nov	Estuaries	KTS 387-398
12	17-Nov	Coral reefs	KTS 413-434
	19-Nov	The deep sea	KTS 487-503
13	24-Nov	EXAM 3	
	26-Nov	THANKSGIVING HOLIDAY	
14	01-Dec	Human impacts: overfishing	KTS 507-516
	03-Dec	Human impacts: introduced species	KTS 547-549
15	08-Dec**	Human impacts: pollution, climate	KTS 533-546
	10-Dec	Human impacts: solutions	KTS 516-519

FINAL EXAM: Tuesday, December 15, 1 – 3 PM in SH 247

* Supplement on Bb: you will read a supplemental document posted on the Blackboard website for this lecture, rather than your textbook.

** The topic review is due on December 8 at the beginning of class.