Berkeley
UNIVERSITY OF CALIFORNIA

Integrative Biology 41: Marine Mammals

MW 4-6pm | 107 Genetics & Plant Bio

COURSE DESCRIPTION:

A survey of marine mammal evolution, biology, behavior, ecology, and politics with a concentration on those species found in the North Pacific. Coverage would include: origin and evolution of cetaceans, pinnipeds, sirenians, and sea otters; basic biology and anatomy of marine mammal groups, and North Pacific species in particular; ecological interactions and role in nearshore and pelagic marine communities; and interactions between humans and marine mammals.

LECTURE FORMAT:

Lectures will be presented using PowerPoint. Each lecture will be posted on bCourses prior to class. It is important to realize that these PowerPoint slides represent only an outline of the material covered. Important details that will be covered on exams will be added by the instructor verbally in each lecture and some materials not posted on Blackboard will be presented in each lecture. Thus attending class and taking detailed notes is the key to success.

TEXTBOOK:

- **Required:** Berta, A., J.L. Sumich, and K.M. Kovacs 2015. Marine Mammals: Evolutionary Biology. 3rd Ed., Academic Press. ISBN: 9780123970022 and Supplemental Readings Posted on bCourses.
- **Recommended:** Reynolds and Rommel. 2007. Biology of Marine Mammals and a Marine Mammal Field Guide.

GRADING:

This course provides diverse opportunities for students to gain and demonstrate proficiency with the material. **Questions on the midterms and final will be drawn mostly from the lectures, but also from informal discussions and required readings.** Students may achieve a maximum of 1000 total points, including some extra credit points. A curve may be applied at the instructor's discretion.

Total points possible = 1,000 points. Grades as follows:

GRADE	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
%	> 93%	90-93%	87-89.9%	83-86.9%	80-82.9%	77-79.9%	73-76.9%	70-72.9%	67-69.9%	63-66.9%	60-62.9%	<60%
POINTS	> 930	900-930	870-899	830-869	800-829	770-799	730-769	700-729	670-699	630-669	600-629	< 600

FINAL GRADES are based upon points accumulated during the quarter and are NOT negotiable.

EVALUATION:

1) Six Online Quizzes = 24% 240 points (40 points each)
2) One Class Presentation (ISR) = 10% 100 points
3) One Term Paper (ISR) = 16% 160 points
4) Two Midterm Exams = 30% 300 points (150 points each)
5) One Cumulative Final Exam = 20% 200 points

ONLINE QUIZZES:

Quizzes posted over the weekend must be taken online via bCourses (due by following class period).

CLASS PRESENTATION AND TERM PAPER:

The Independent Scientific Review (ISR) you will complete as your final project for the course is to designed to encourage you to apply what you learn in the classroom to a marine mammal conservation and management issue of your choosing. Students may complete the ISR in groups (maximum of 4 coauthors) or individually. Presentations should be no longer than 10 minutes and prepared in Powerpoint. Written papers must be submitted via bCourses at which time they will be checked for plagiarism using Turnitin software. Assignments submitted late will be assessed an automatic 10% deduction per day (24 hours).

EXAMS:

Exams are administered in multiple choice and short answer format, with answers submitted on scantron forms and short answer sheets. Exams cover lectures and assigned reading materials. Each midterm exam covers the material starting after the previous exam and up until the current exam. The final exam is cumulative. There will be no makeup exams without a legitimate excused absence (see below). When exams are administered, as soon as the first student is finished with the exam, no one will be admitted into the testing room.

ABSENCE POLICY:

In the event of a legitimate and documented absence from an in-class exam (e.g., Serious illness on the day of the exam), if possible consult with the instructor prior to you absence. Absences without a valid reason and proper documentation will result in a grade of zero for the missed day. In the event that you cannot attend an exam or other class period due to sudden, unforeseen circumstances (e.g., serious car accident on the way to class), contact the instructor within 24 hours of the absence to make arrangements. For example, it may be possible to make up a quiz or exam. Students with repeated unexcused absences may be dropped from the course at the discretion of the instructor.

EXTRA CREDIT:

Opportunities for extra credit may be available in the form of pop quizzes at the beginning of some lectures.

CLASS POLICIES:

Special needs: Students with special needs are encouraged to contact the instructor during office hours or by e-mail **during the first two weeks of the semester** to discuss accommodations for lectures, midterms or other elements of the course.

Re-grades: To contest a grade on an exam or assignment you must submit a written explanation of why you think the grade was incorrect. Please note that the entire exam or assignment will be subject to re-evaluation and your score may go up or down. **Re-grade requests must be submitted to the instructor within one week of the work being returned.**

University Policy on Cheating or Plagiarism (UCB General Catalog)

"Achievement and proficiency in subject matter include your realization that neither is to be achieved by cheating. An instructor has the right to give you an F on a single assignment produced by cheating without determining whether you have a passing knowledge of the relevant factual material. That is an appropriate academic evaluation for a failure to understand or abide by the basic rules of academic study and inquiry. An instructor has the right to assign a final grade of F for the course if you plagiarized a paper for a portion of the course, even if you have successfully and, presumably, honestly passed the remaining portion of the course. It must be understood that any student who knowingly aids in plagiarism or other cheating, e.g. allowing another student to copy a paper of examination question, is as guilty as the cheating student."

If you turn in someone else's work as if it were you own, you are guilty of cheating. This includes assignments, exams, and extra credit. All suspected cases of cheating will be forwarded to the Office of Student Conduct. Starting this semester, all courses at Berkeley will use the Turnitin Originality Check software to detect plagiarism.

CLASS SCHEDULE

Day	Date	#	Lecture Topic*	Reading **	Online Quiz ***
Mon	19-Jun	1	Introduction to Marine Mammals Course Logistics	Ch. 1	
Wed	21-Jun	2	Evolution of Marine Mammals: Phylogeny, Taxonomy and Classification	Ch. 2 Appendix	1
Mon	26-Jun	3	Introduction to ISR, Pinniped Evolution and Systematics	Ch. 3, S1 Appendix	
Wed	28-Jun	4	Cetacean Evolution and Systematics	Ch. 4 Appendix	**2**
Mon	3-Jul	5	Evolution of Sirenians and other Marine Mammals Exam Review	Ch. 5 Appendix	
Wed	5-Jul		**Exam 1: Marine Mammal Evolution and Systematics**		
Mon	10-Jul	6	Guest Speaker: Bill Keener – Marine Mammals of SF Bay	Ch. 6, S2	
Wed	12-Jul	7	Applied Marine Mammal Research: Marine Mammals in Alaska	Ch. 7-8	3
Mon	17-Jul	8	Functional Morphology of Marine Mammals ****Meet at MVZ****	Ch. 9-10	
Wed	19-Jul	9	Field Trip: Marine Mammal Center 2pm (Carpools Meet at 1pm)	Ch. 11-12	4
Mon	24-Jul	10	Guest Speaker: Dr. Sara Allen, NPS Marine Mammal Management	Ch. 15, S3	
Wed	26-Jul		**Exam 2: Marine Mammal Anatomy** ******Meet at MVZ******		5
Mon	31-Jul	11	Stories from the Field: New Zealand Dusky Dolphins Behavioral Ecology, Reproduction and Population Structure	Ch. 13-15 S4-6	
Wed	2-Aug	12	Student ISR Presentations I		6
Mon	7-Aug		Student ISR Presentations II		
Wed	9-Aug		**Cumulative Final Exam**		

* Note: This is a tentative schedule subject to change. Optional Field Trips TBA.

** Assigned readings should be completed before class. Textbook chapters (Ch.) are in Berta et al. 2015
Supplemental Readings (S) will be posted on bCourses.

*** Online Quizzes will be posted on bCourses and are due before the following class meeting.

**** Two classes will meet at the Museum of Vertebrate Zoology – 3101 Valley Life Sciences Building http://mvz.berkeley.edu/