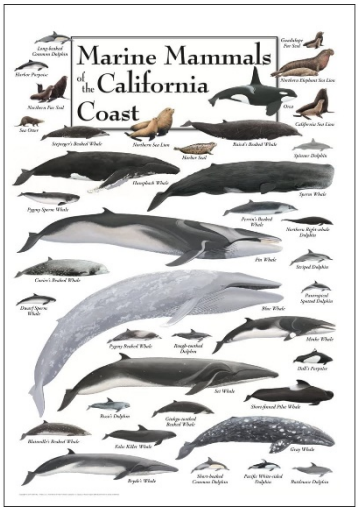
IB 41 Marine Mammals
Monday & Wednesday 1:00 - 1:59 pm
Social Sciences Building, Room 20



Course description
A survey of marine mammals with a concentration on species found in the North Pacific. Coverage includes origin and evolution of marine mammal groups, basic ecology, biology, conservation, and a revision of the methods used to study marine mammals. This class is intended for both, biology and non-biology students.

Instructor
José Pablo Vázquez-Medina
Email: jpv-m@berkeley.edu

Student Hours with the Instructor
Wednesday 12:00-1:00 pm, Valley Life Sciences Building, Room 5041

Student learning objective
To gain a general understanding of marine mammals, their basic biology, conservation/management strategies and how to study them.

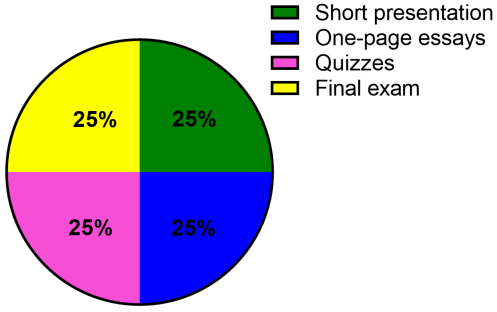
Course materials
A) Suggested textbooks (freely available online with your Cal credentials)

- Marine Mammals of the World
https://www.marinemammalscience.org/species-information/books/
- Encyclopedia of Marine Mammals
https://www.sciencedirect.com/book/9780128043271/encyclopedia-of-marine-mammals
- Marine Mammals: Evolutionary Biology
https://www.sciencedirect.com/book/9780123970022/marine-mammals

B) bCourses site
I will use bCourses to communicate with the class, distribute any relevant materials including lecture PowerPoints, administer quizzes and collect papers.

C) Piazza
Piazza is a collaborative tool that promotes interaction among the students and the Instructor. You can access Piazza through bCourses. I encourage you to use Piazza as needed. Posting anonymous questions in Piazza is allowed.

Grade distribution/Requirements
Short presentation (25%). 4 one-page essays (25%). 4 in-class quizzes (25%). Final exam (25%).



Letter grades:

≥ 95% A+	≥ 73% C+
≥ 90% A	≥ 70% C
≥ 87% A-	≥ 67% C-
≥ 83% B+	≥ 63% D+
≥ 80% B	≥ 60% D
≥ 77% B-	<60% F

Short presentation: One 3-minute individual presentation describing a current marine mammal conservation/management issue and a possible solution.

Essays: Four 1-page papers describing your impressions about the material presented in guest lectures. We will have seven guest lectures, please pick the 4 lectures you like the most and write about them. Papers are due 1 week after each corresponding guest lecture and should be submitted via bCourses.

In-class quizzes: 4 quizzes will be administered at the beginning of selected lectures via bCourses (please consult the class schedule) and will cover the material presented in the previous lecture.

Final exam: the final in-person exam includes multiple choice and short answer questions. It will be closed book, closed notes and will be based exclusively on the material presented in lecture.

How to Succeed in this Course

I encourage you to participate as much as possible by attending lectures and asking questions. When studying for quizzes and exams focus on the material presented in lecture. Take notes and work on your papers as soon as you can, while the material is still fresh in your mind. Identify a conservation/management problem and start working on your short presentation as early as possible. Feel free to attend the Student Hours with the Instructor. I enjoy interacting with you. To prepare for the exam, review your notes, attend the general review session, and feel free to ask questions.

Class Schedule (subject to changes, **no class: Monday Sep 5 and Monday Nov 24**)

Wednesday, Aug 25	Introductions and class logistics
Monday, Aug 30	Lecture 1. Marine mammals of the world
Wednesday, Sept 1	Lecture 2. Taxonomy and classification
Wednesday, Sept 8	Lecture 3. Marine mammal evolution
Monday, Sept 13	Lecture 4. Functional morphology of cetaceans; **Quiz 1**
Wednesday, Sept 15	Lecture 5. Functional morphology of pinnipeds and other marine mammals
Monday, Sept 20	Lecture 6. Behavior; **Quiz 2**
Wednesday, Sept 22	Lecture 7. Communication and cognition
Monday, Sept 27	Lecture 8. Marine mammal conservation; **Quiz 3**
Wednesday, Sept 29	Lecture 9. Marine mammal health
Monday, Oct 4	Guest Lecture: “Pinniped research at Point Reyes National Seashore”, Sarah Codde, National Park Service
Wednesday, Oct 6	Lecture 10. Pollutants and marine mammals
Monday, Oct 11	Guest Lecture “Straight from the seal's mouth: engineering and evolution of marine carnivore skulls”. Jack Tseng, UC Berkeley
Wednesday, Oct 13	Lecture 11. Methods used to study marine mammals; **Quiz 4**
Monday, Oct 18	Guest Lecture: “From cells to behavior of marine mammal life history: Finding ’tipping points’ in a changing world”. Michelle Shero and Caroline Rzucidlo, Woods Hole Oceanographic Institution
Wednesday, Oct 20	Guest Lecture: "The life and stresses of an elephant seal". David Ensminger, San Jose State University
Monday, Oct 25	Guest Lecture: “Thermoregulation in northern elephant seals among three northern California rookeries”. Emily Lam, UC Berkeley
Wednesday, Oct 27	Q&A session about short presentations; **Optional**
Monday, Nov 1	Guest Lecture: “Diving physiology: marine mammal adaptations to life below the surface”. Kaitlin Allen, UC Berkeley
Wednesday, Nov 3	Guest Lecture: “Sleeping while diving: developing techniques to record and visualize the hidden behaviors of marine mammals in the deep” Jessica Kendall-Bar, UC Santa Cruz
Monday, Nov 8	Short Presentations 1
Wednesday, Nov 10	Short Presentations 2
Monday, Nov 15	Short Presentations 3
Wednesday, Nov 17	Short Presentations 4
Monday, Nov 22	Short Presentations 5
Monday, Nov 29	Short Presentations 6
Wednesday, Dec 1	General Review
Wednesday, Dec 15	**FINAL EXAM**

Policies

Remote instruction: please note that the class could transition to remote instruction at any time due to COVID or fire/air quality emergencies in accordance to University policy.

Absences: if you cannot attend a lecture or exam due to illness or other circumstances beyond your control, please contact me and explain the circumstances beforehand (when possible). Please provide documentation of the circumstances (e.g., a doctor's note in the case of illness). I will consider the possibility of alternative assessment under justified circumstances.

Accommodations: please contact me as soon as possible if you have a disability (see below), sports conflict or religious need, so that I can plan the necessary accommodations.

Students with Disabilities: UC Berkeley is committed to creating a learning environment that meets the needs of its diverse student body including students with disabilities. If you anticipate or experience any barriers to learning in this course, please feel welcome to discuss your concerns with me. If you have a disability, or think you may have a disability, you can work with the Disabled Students' Program (DSP) to request an official accommodation. DSP is the campus office responsible for authorizing disability-related academic accommodations, in cooperation with the students themselves and their instructors. You can find more information about DSP, including contact information and the application process at https://dsp.berkeley.edu/. If you have already been approved for accommodations through DSP, please meet with me so we can develop an implementation plan together.

Class materials: all class materials are the property of the Instructor and The Regents of the University of California. **They shall not be posted on CourseHero or any other website.**

Academic Integrity: you are required to abide to the Code of Student Conduct at all times. The student community at UC Berkeley has adopted the following Honor Code: **"As a member of the UC Berkeley community, I act with honesty, integrity, and respect for others".** Please refer to this link for more resources: https://conduct.berkeley.edu/code-of-conduct/

Collaboration and Independence: reviewing lecture materials and studying for exams can be enjoyable and enriching things to do with fellow students. This is recommended. However, assignments should be completed independently and all materials submitted should be the result of one's own independent work.

Cheating: A good lifetime strategy is always to act in such a way that no one would ever imagine that you would even consider cheating. Anyone caught cheating will receive a failing grade and will be reported to the University Center for Student Conduct. To guarantee that you are not suspected of cheating, please keep your eyes on your own materials and do not converse with others during the quizzes and exams.

Plagiarism: To copy text or ideas from another source without appropriate reference is plagiarism and will result in a failing grade for your assignment and usually further disciplinary action. For additional information on plagiarism and how to avoid it, see, for example:

http://www.lib.berkeley.edu/instruct/guides/citations.html#Plagiarism
https://gsi.berkeley.edu/gsi-guide-contents/academic-misconduct-intro/

Cheating on exams and plagiarism are two common examples of dishonest, unethical behavior. Honesty and integrity are of great importance in all facets of life. They help to build a sense of self-confidence, and are key to building trust within relationships, whether personal or professional. There is no tolerance for dishonesty in the academic world, for it undermines what we are dedicated to doing – furthering knowledge for the benefit of humanity.

Closing words

This class will expose you to the fascinating world of marine mammals. I am very excited to share this learning experience with you! I sincerely encourage you to interact with your fellow students, our invited guests and me.