Syllabus for: Biology of Marine Mammals; Biology 27

<table>
<thead>
<tr>
<th>Semester &amp; Year:</th>
<th>Spring 2013</th>
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<tbody>
<tr>
<td>Course ID and Section Number:</td>
<td>Biol 27 Section # 033339</td>
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<tr>
<td>Number of Credits/Units:</td>
<td>3.0</td>
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<tr>
<td>Day/Time:</td>
<td>Tue and Thur 10:05am - 11:30am</td>
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<tr>
<td>Location:</td>
<td>Room DM 15</td>
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<tr>
<td>Instructor’s Name:</td>
<td>Rod McLeod</td>
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<td>Contact Information:</td>
<td>Office location and hours: Rm D24 (in Bio Lab) by appointment. Phone: 465-2350 (leave message) Email:<a href="mailto:Rod-Mcleod@redwoods.edu">Rod-Mcleod@redwoods.edu</a></td>
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Course Description:
An introduction to the biology of marine mammals, including their natural histories, evolution, anatomy, physiology, behavior, ecology, and conservation. The course emphasizes local and global study of marine mammals, including whales, dolphins, porpoises, pinnipeds, sea otters, polar bears, and sirenians.

Student Learning Outcomes:
1. Relate concepts in evolutionary theory to the anatomical, physiological, behavioral, life history, and ecological adaptations of marine mammals.

2. Utilize the Linnaean classification system for the identification of local and global marine mammal species.

3. Apply the scientific method of inquiry and analysis to the study and conservation of marine mammals.

Special accommodations: College of the Redwoods complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. Please present your written accommodation request at least one week before the first test so that necessary arrangements can be made. No last-minute arrangements or post-test adjustments will be made. If you have a disability or believe you might benefit from disability related services and may need accommodations, please see me or contact Disabled Students Programs and Services. Students may make requests for alternative media by contacting DSPS.

Academic Misconduct: Cheating, plagiarism, collusion, abuse of resource materials, computer misuse, fabrication or falsification, multiple submissions, complicity in academic misconduct, and/ or bearing false witness will not be tolerated. Violations will be dealt with according to the procedures and sanctions proscribed by the College of the Redwoods. Students caught plagiarizing or cheating on exams will receive an “F” in the course.

The student code of conduct is available on the College of the Redwoods website at: http://www.redwoods.edu/District/Board/New/Chapter5/Ap5500.pdf

College of the Redwoods is committed to equal opportunity in employment, admission to the college, and in the conduct of all of its programs and activities.
Course runs 1/15/13-5/10/13
(3 units LEC) P/NP Option
CSU and UC transferable

Note: This course is designed for life science and related majors, but is also open to non-science majors.

Lecture Meeting Times
Tue/Thu 10:05am  11:30am,Rm DM 15

Instructor:
Rod McLeod
Office Rm D24 (in Bio Lab)
Office Hours: by appointment
Phone: (707) 465-2350
Email: Rodmcleod2@gmail.com

Course Description
WELCOME TO BIOLOGY OF MARINE MAMMALS!!!!
This is an introductory course where students will learn about the biology, natural history, evolution, anatomy, physiology, behavior, population ecology and conservation of marine mammals. The course emphasizes local and global study of whales, dolphins, porpoises, seals, sea lions, sea otters, polar bears and sirenians.

This course will cover topics on the evolution, patterns of similarity and diversity of marine mammals. You will learn about the function of specialized anatomical structures, and the relationship between physical environment and anatomical, physiological and behavioral adaptations. We will also discuss the effects human exploitation and conservation efforts have had on marine mammals.

There will be a good amount of work in this course, as well as activities requiring internet and computer research and use.

So,....Let's learn about marine mammals!!
Required Materials

Textbook:
Title: An Introduction to Marine Mammal Biology and Conservation.
Edition: 1st
Author: E.C.M. Parsons, 2013
Publisher: Jones and Bartlett
ISBN #: 978-0-7367-8344-0

Recommended
Title: Field Guide to Marine Mammals of the Pacific Coast
Author: Sarah Allen, Joe Martenson and Sophie Web
Publisher: University of California Press, 2011

Books are available through the CRDC Bookstore as well as various on-line resources. Allen may be available at the Del Norte Coast State Parks bookstore or other local bookstores.

Course Themes:
1. Patterns of similarity due to relatedness and diversity due to adaptation.
2. The relationship between anatomical structure and function.
3. The relationship between physical environment factors and anatomical, physiological, and behavioral adaptations.
4. Human influences on marine mammals.

Course Concepts:
1. Evolutionary theory and the role of natural selection in generating diversity.
2. The closeness of relationship which is reflected in the biology of living organisms.
3. The scientific method and the role of hypotheses.

Skills that students will master in this Course:
1. Read and understand assignments.
2. Articulate the central concepts of their textbook.
3. Identify the common species of northern California marine mammals on sight.
4. Organize materials into an oral presentation for effective communication to the instructor and to other students.
5. Analyze scientific data and provide a logical interpretation.
Course Student Learning Outcomes

- Relate concepts in evolutionary theory to the anatomical, physiological, behavioral, life history, and ecological adaptations of marine mammals.
- Utilize the Linnaean classification system for the identification of local and global marine mammal species.
- Apply the scientific method of inquiry and analysis to the study and conservation of marine mammals.

Reading Assignments and Tentative Schedule*

You should read the assigned material before the date of the lecture it is listed for. NOTE: There may be one or two field excursions outside of class time. These will be optional but highly recommended. Dates will be announced in class.

January 15 - Course Introduction, What is a Marine Mammal?

January 17 - Marine Mammal Classification and Diversity

January 22 - Marine Mammal Evolution.

January 24 - Adaptations to a Marine Environment.
Reading: Parsons Chapter 4. Allen pp 15-36.

January 29 - Underwater Sound
Reading: Parsons Chapter 5.

January 31 - Polar bears and otters.
Reading: Parsons Chapters 6, 7. Allen pp. 453-477

February 5 - Sirensians
Reading: Parsons Chapter 8.

February 7 - Pinnipeds
Reading: Parsons Chapter 9.

February 12 - Mysticeti: The baleen Whales
Reading: Parsons Chapter 10, Allen pp. 96-385
Reading Assignments and Tentative Schedule*

February 14 - Mysticeti: The baleen Whales (cont.)
Reading: Parsons Chapter 10, Allen pp. 96-385

February 19 - Odontoceti: The toothed whales
Reading: Parsons Chapter 11, Allen pp. 96-385

February 21 - Delphinidae: The Oceanic Dolphins
Reading: Parsons Chapter 12, Allen pp. 96-385

February 26 - The Oceanic Dolphins (cont.)
Reading: Parsons Chapter 12, Allen pp. 96-385

Reading: Parsons Chapter 13. Allen pp. 36-48

March 5 - Field Trip - Marine Mammal Center
or review for midterm

March 7 - Midterm

March 11-15 - Spring Break

March 19 - Whaling and the IWC
Reading: Parsons: Chapter 14

March 21 - History of Whaling
Reading: Parsons: Chapter 14

March 26 - Threats to Cetaceans
Reading: Parsons: Chapter 15.

March 28 - Threats to Pinnipeds
Reading: Parsons: Chapter 16.

April 2 - Marine Mammal Protection
Reading: Parsons: Chapter 17.

April 4 - Field Trip?
Reading Assignments and Tentative Schedule*

April 9 - Marine Mammal Tourism
Reading: Parsons: Chapter 18.

April 11 - Marine Mammal Research Techniques
Reading: Parsons: Appendix.
(Project summaries due)

April 16 - Student presentations

April 18 - Student presentations

April 23 - Student presentations

April 25 - Student presentations

April 30 - Student presentations

May 2 - Review for Final Exam

May 7 - Comprehensive Final

Grading:
Lecture Midterm: 100 points: March 7th. No makeup will be given.
Lecture Final: 100 points. Comprehensive. May 7th. No makeup will be given.
Quizzes: 100 points. Quizzes may be given at the beginning or end of any class and may cover any lecture or reading material previously assigned.

There are no retakes.

Student Project: 100 points. Due April 11th (presentations April 16- 30)
Total = 400 points

Student Project Instructions: Each student will be assigned a unique topic involving marine mammals. Topics may focus on a particular species, aspect of marine mammal biology, ecology or management. You will give a short (15 minutes) presentation of your topic to the class. Your presentation must be in the form of a PowerPoint, video, or other visual presentation that helps your fellow students learn something new about this
topic. Do not simply summarize lecture material already presented. You will turn in a one to two page summary of your talk or project by April 11. Your presentation date will be assigned, but could be as early as April 16 or as late as April 30. Oral presentations/demonstrations should be no longer than 15 minutes. The project will not be accepted without the presentation.

Final grades based on percentage of totals: Grading: total of 400 points = 100%. 90% and above = A; 80-89% = B; 70-79% = C; 60-69% = D; 59% and below = F. This Course may be taken for a grade or CR/NCR option. See the Registrar for details. Late exercises, homework, midterm, assignments or papers will NOT be accepted.

At the end of the course, your final grade is computed on the basis of total points earned divided by total possible points possible for the semester. This value is then turned into a percentage, with grades being assigned as follows:

A=93.0%-100; A-=90.0-92.9%; B+=87.6-89.9%; B=82.6-87.5%; B-=80.0-82.5%;
C+=77.6%-79.9; C=72.6-77.5%; C-=70.0-72.5; D=60.0-69.9%; F=59.9% and below

I reserve the right to curve or not curve individual final grades during and at the end of the term. Class participation may be taken into account in cases of students who are border-line between two grades.

Course Layout

You should consistently follow along the included course schedule and class announcements or changes to it to keep on top of lecture topics, as well as exam dates and other due dates.

Lectures:

Lectures are a mix of PowerPoint/multimedia, discussions, and occasional group exercises/activities. To do well in this course, you should do all textbook readings associated with the lectures, as outlined in the course schedule and/or discussed in lecture. Late assignments are not accepted, and missed classwork/homework/activities cannot be made up. You are expected to attend and fully participate in all lectures. While PowerPoint lecture notes and other learning tools may be made available to you, they are not guaranteed to always be provided, and are not a substitution for attending lecture. You are expected to listen and take active notes during lecture.
Exams:
- Exams may involve multiple methods of assessment, and emphasize content presented in the lectures and in the textbook. They may also include questions based on assigned homework, classwork, case studies, and activities.
- You are responsible for all assigned textbook readings. Content not gone over in lecture, but presented in an assigned chapter may still be on the exam. Thus, if you do not understand a concept in your assigned reading, it is important to ask for help from the instructor outside of class.

Homework/Classwork/Activities:
- A number of homework assignments, classwork assignments, and activities may be assigned throughout the course to help you increase understanding and application of course material.
- Unless otherwise declared by the professor, all written work should be typed, and all work you submit must be neat and professional. Unprofessional-looking/non-neat papers may not be accepted. No late work is accepted, and assignments/activities cannot be made-up. If you miss class, it is your responsibility to find out what was missed/assigned from a classmate. If you miss a class on the day an assignment is due, you must have the assignment turned into the professor’s mailbox in the main office within 24 hours of the missed class period. Electronic submissions of assignments are not accepted.

Attendance
- Students enrolled for credit or audit are expected to attend and fully participate in all lecture and lab sessions. Students with excessive (more than three) unexcused lecture absences, tardinesses (more than 4, and more than 5 minutes late), and/or early departures (more than 4) OR who miss the mid-term may be dropped from the course by the professor. The last day for the instructor to drop a student is March 29th. Do NOT assume that I will drop you! If you cease coming to class and are not dropped, you will receive the grade you have earned (according to the total points earned).

Americans with Disabilities Act
- College of the Redwoods complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. Please present your written accommodation request at least one week before the first test so that necessary arrangements can be made. No last-minute arrangements or post-test adjustments will be made. If you have a disability that requires reasonable
accommodations, please contact the Disabled Student Programs and Services office at Disability Services Office (707) 464-2352. For more information, visit http://www.redwoods.edu/delnorte/dsps/Contact.asp

**Equal Opportunity**
College of the Redwoods is committed to equal opportunity in employment, admission to the college, and in the conduct of all of its programs and activities. It is the policy of the college to provide equal educational opportunity and employment opportunities and to provide service benefits to all students and employees without regard to race, color, religion, national origin, sex, age, disability, or any other status or characteristic protected by applicable state or federal law.

**Class Conduct**
All students are expected to behave appropriately for a college-level classroom setting, both inside and outside of the classroom and lab. *All College of the Redwoods student conduct regulations apply in the classroom and in the lab, and on campus.* This includes, but is not limited to, being courteous to your fellow students and the professor, not chit-chatting during lecture, abiding by smoking regulations, etc.

As this is a college-level course, I expect that you will study, write, and communicate with other students and the professor and instructional assistant in a professional manner. Issues and concerns should be brought to my attention in a professional manner by e-mailing me or coming to my office. Please allow 48 hours for an email response during the work week. I may not check email on weekends, evenings, or holidays. I expect that all formal written work will be written and typed professionally and will be proofread prior to submission.

Finally, I expect that you will not procrastinate and wait until the last minute to complete assignments. Accordingly, I pledge to act professionally and in the best interests of my students, to come prepared to class and lab, to address students concerns and needs as quickly and thoroughly as possible, to offer academic feedback as promptly as possible, and to do my utmost to ensure that my students receive the best possible education I can provide.

Unless you have discussed particular circumstances with me, please **turn off all cell phones and other electronic devices upon entering the classroom**. If a student engages in disruptive behavior (such as talking while I or another student is addressing the class), I may have to stop class until the situation is resolved. If the behavior is severe enough, a student may be removed from class and reported to the college administration.
**Academic Misconduct:**
Cheating, plagiarism, collusion, abuse of resource materials, computer misuse, fabrication or falsification, multiple submissions, complicity in academic misconduct, and/or bearing false witness will not be tolerated. Violations will be dealt with according to the procedures and sanctions proscribed by the College of the Redwoods. The student code of conduct is available on the College of the Redwoods website at:
http://www.redwoods.edu/District/Board/New/Chapter5/Ap5500.pdf

**Plagiarism**
*Everything you write in this course must be your own work.* If you put something in your paper, exams, quizzes, labs, or assignments that are not your own words and/or you do not give credit to the author (this includes not just putting someone else's words down, but even just their idea(s)!), you have committed PLAGIARISM.

*Committing any form or amount of plagiarism may result in an automatic “F” on your work and is grounds for further disciplinary action, such as being reported to the college’s administration.* This includes plagiarizing from websites and other text documents, the professor’s lectures, the textbook, from classmates, etc. Doing so will result in a grade of zero on the plagiarized work and is ground for further disciplinary action, as committing plagiarism is a violation of the college’s code of conduct. For help in properly citing sources, visit Diana Hacker’s [Research and Documentation Online](http://www.georgetown.edu/honor/plagiarism.html) website or check out the following website:
http://www.georgetown.edu/honor/plagiarism.html).

Again, any copying off of others (including just “switching” the words around) will result in BOTH parties receiving a zero on the report and is grounds for further disciplinary action. Failure to comply with the plagiarism policy will result in a zero on the work submitted and is grounds for further disciplinary action.

*All that stern stuff being said, remember I, and the rest of the College of the Redwoods faculty and staff, are always here to help and encourage!!! Come talk to me in my office or email me, should you have any questions, concerns, or just need someone to talk to!!!*

Note: I reserve the right to make changes to this syllabus, course schedule, or grading requirements during the course. Students will be notified of changes in writing and/or by announcement in class.