BIOL 4590-MARINE MAMMAL PHYSIOLOGY

LECTURE SECTION
BIOL-4590
Wed: 8:00-10:20 AM
CI-128

INSTRUCTOR: Dr. Andreas Fahlman (Ph.D.)
Office: Harte Research Institute (HRI)-121
Office Phone: (361) 825-3489
E-mail: andreas.fahlman@tamucc.edu
Office Hours: Wednesday: 8:00-11:00, Tuesday and Thursday 10:00-11:00 AM;

Students may make appointments to see me or at times other than those listed above. If I am unavailable or need to relocate during office hours, I will post a note on the door. Students at other campuses may schedule a telephone or skype call to discuss issues in class.

COURSE DESCRIPTION: Marine Mammal Physiology will provide knowledge of advanced physiological topics related to marine mammals. The readings for this course will highlight some of the published research on how the physiology of marine mammals produces adaptations to a variety of environmental challenges. The literature used will also compare different marine mammals groups and their adaptations to similar environments, and will highlight some of the evolutionarily conserved adaptations. Students will participate in class discussions, write a term paper, and give one lecture on their term paper.

COURSE PURPOSE: This is an undergraduate level animal physiology course that investigates, analyzes, and critiques current research in physiology and physiological ecology of marine mammals.

STUDENT LEARNING OUTCOMES: Students will read, comprehend, and critically evaluate published journal articles. Students will discuss published works critically with their peers, and will determine where future research efforts should be focused. Students will enhance lecture skills by putting together one class lecture that describes their term paper and give this and present this to their peers. Students will write a term paper about a topic in marine mammal physiology of their choice. Students will learn the benefits of physiological research to humans, to all other animals, to communities, and to ecosystems.

PREREQUISITES: Biology 3430 (Physiology) or equivalent course is required.

REQUIRED AND SUPPLEMENTAL TEXT: There is no textbook for this course. However, you will have journal articles that you are responsible for reading BEFORE class each Wednesday. Articles that should be read before each class will be provided and posted on Blackboard. Sample articles will be given and it is expected that each student also search various databases to find papers on their own. Other than the articles, you may want to have a small notebook to put down thoughts, comments and
questions as you read.

**CLASS PRESENTATIONS:** Each undergraduate student will give one 20-25 min oral presentation that describes their term paper. The presentation should be a short lecture that describes introduces the topic and describes the main body. Students will be graded on the presentation by their peers and by the instructor.

**CLASS PARTICIPATION:** This is an upper level undergraduate course, which is taught jointly with graduate students. Therefore, you will be graded on class participation. It is expected that you come to every class prepared. Participation includes having read assigned papers, and actively engage in class discussions about these papers, and ask questions during or after presentation.

**TERM PAPER:** Students will write a term paper about marine mammal physiology. See details below.

**FINAL GRADING:** Your final letter grade will be based on the points you earn in lecture and laboratory. The final grading scale will also be determined at the end of the semester, but the cut-off for each grade will be no higher than the following:

\[
A \geq 90\% > B \geq 80\% > C \geq 70\% > D \geq 60\% > F
\]

Final course grades will be determined by the following:

- Class participation: 25%
- Term paper outline: 15%
- Term paper: 35%
- Term paper presentation: 25%

100%

**MY RULES:**

**ATTENDANCE:** As this class meets only once per week, missing a class is not an option. If, however, you have official University business and know of an absence in advance, please tell me at least 14 days before the expected absence so that we can work out plans for making up the missed class. This course will only be as good as you make it. Being prepared and ready to discuss the progress of your work and your readings each week is a must. There will also be no tolerance for not allowing classmates to join in the discussion. I expect all members of the class to respect the statements and opinions of others, which means to speak respectfully, act respectfully, and listen respectfully. I reserve the right to implement quizzes or exams at any time and without notice. In addition, the syllabus may change depending on the number of students that register for the class.

**ABSENCES:** You are responsible for the material covered and assignments made in every lecture regardless of whether you attend it or not. “I came in late and didn’t hear about the assignment, or specific material,” is never an acceptable excuse. It is always your
responsibility to determine what happened in class during your absence. If you are absent, tardy, or leave early, you will have to copy a classmates notes and handouts. I will not, “track down” absentees to make sure that they know about material not covered in the textbook. Lecture PowerPoint presentations will be uploaded to Blackboard at the discretion of the student that makes the presentation, but as note taking is an important skill, it is expected that each student take notes.

Miscellaneous Policies Regarding Attendance:
There are no make-ups for missed work except for an excused absence. An excused absence allows us to make alternative arrangements for completing work. The documentation required for an absence to be excused must be...
- from an appropriate source (e.g., doctor, dentist, funeral director) who states the nature of the event that caused (or will cause) your absence.
- in writing, on official stationery, and signed. (I do not return excuses to you.) Telephone calls, FAXes, and e-mails are not acceptable.
- presented prior to the absence for a scheduled event (e.g., university-sponsored activity, recognized religious holiday, military service).
- presented no more than one week after the date of an unexpected absence.

When an excused absence is planned ahead, the student should consult with the Professor to be given a credit for the missed class.

Unacceptable Excuses: Only unavoidable absences are excused, so you should schedule routine personal events (e.g., vacations, weddings, reunions, non-emergency medical or dental visits, parent-teacher conferences, household or auto repairs) to avoid conflicts with your classes. Oversleeping is never an acceptable excuse. Employment conflicts are not acceptable excuses for absences, tardiness, or leaving class early. (Once enrolled in a class, it is the student’s responsibility to arrange his or her work schedule so that no regularly scheduled class or examination time is missed.) Texas waives jury duty for students, so jury duty is not an acceptable excuse.

Late Assignments: You may always turn in assignments early. Except for excused absences, late assignments will not be accepted. If you know in advance that you will have an excused absence when an assignment is due, you must turn in that assignment before its due date. You should turn in assignments that were missed because of an unexpected, excused absence as soon as possible.

Any situations for which you cannot provide an acceptable excuse as outlined above (e.g., “I have an excuse, but it is too personal to discuss with you”) will be discussed with Dr. Eliot Chenaux, Vice President for Student Affairs.

CLASSROOM ETIQUETTE: You are adult University students. I will treat you as such, and I will expect you to act as such. You will act with courtesy and common sense. I will not tolerate disruptive, disrespectful, or abusive behavior/language directed toward anyone in this class (i.e., student or instructor). Violations range from talking during class to outright insubordination, and will result in penalties that range from the student being asked
to stop the student being “escorted” from the class - permanently. Cellular phones (including text messaging), pagers, and other “beepers” must be turned off in the classroom. (I will make exceptions for certain “emergency” personnel, but you must see me to obtain this.) Children are not allowed in the rooms during lecture, or when the child’s guardian is working or studying “after hours.”

REQUIRED BY THE UNIVERSITY

Academic Integrity/Plagiarism

University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a grade of 0% for that assignment/test and a report being filed.

Dropping a Class

I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with me before you decide to drop to be sure it is the best thing to do. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. The academic schedule for this semester can be found on the University web page and there is the date for the last day to drop a class with an automatic grade of “W” this term.

Classroom/professional behavior

Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

Grade Appeals (College of Science and Engineering Version)

As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as
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outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules website at http://www.tamucc.edu/provost/university_rules/index.html, and the College of Science and Engineering Grade Appeals webpage (http://sci.tamucc.edu/students/GradeAppeal.html). For assistance and/or guidance in the grade appeal process, students may contact the chair or director of the appropriate department or school, the Office of the College of Science and Engineering Dean, or the Office of the Provost.

Disabilities Accommodations

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in Corpus Christi Hall 116.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

Statement of Academic Continuity

In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

Biology 4590: Marine Mammal Physiology
TERM PAPER INFORMATION

OUTLINE DUE: Oct 1 2014
PAPERS DUE: Nov 12 2014

Late papers will be penalized 10% per day late (One letter grade per day late)
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OUTLINE REQUIREMENTS: Define intro, body paragraphs and conclusion in outline or paragraph format. Include title and at least 10 references. Points will be deducted for late papers.

PAPER REQUIREMENTS:
1. Title page: Includes title, your name and date.
2. Introduction: 1-2 paragraphs introducing your topic and general physiology of the system. This should set up the info you will present in the body of the paper.
3. Body of paper: Several paragraphs with details of your topic. Elaborate on the information in your introduction. This should be a well thought out and coherent description of your topic. Be careful not to ramble and avoid sounding like an encyclopedia entry. I want an in-depth discussion of a topic. Be particularly careful if you are writing on a topic from lecture such as thermoregulation or diving physiology – you need to give more information than you were given in lecture.

REMEMBER: When you use scientific information that is not your research you must cite it in the text and include the reference. Use your references for examples on how to format this section.
4. Conclusion: 1-2 paragraphs relating the specifics of the body back to the general topic. Boldly state your point.
5. References: You must have at least 8 references for your topic. All should be books or scientific journals (no web sites, newspapers or magazines).
6. Formatting: 12 point font, minimum of 1.5 lines spacing, and a maximum of 8 pages, not including references.

BREAKDOWN OF HOW THE PAPER WILL BE GRADED:
PARAGRAPH: Handed in on time and meets all of the above requirements 8 pts.
INTRODUCTION: clear, concise, with good general info 15 pts
BODY OF PAPER: background facts clear and accurate, detailed scientific info 40 pts
CONCLUSION: Concise summary, good synthesis of info 15pts
STRUCTURE, CONTENT AND STYLE: Organized paragraph and sentence structure, correct spelling & grammar, overall well researched, presented and organized. 10 pts
Correct reference citing in paper and acceptable references in number and type 12 pts
TOTAL: 100 pts

Examples of paper topic:
- Respiratory physiology of marine mammals
- Adaptations in bottlenose dolphins to extend their aerobic dive limit
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- Allometric scaling of metabolic rate in marine mammals
- Thermoregulation in marine mammals

TERM PAPER POWER POINT GRADING GUIDELINES

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