Course Name And Number: BIOL 5410 STUDIES IN MAMMALOGY
Credit Hours: 4(3:3)
Instructor: Dr. Graham C. Hickman
Contact Information: Office: ST 319D; Office Hrs. TWF 10-12 and by appointment
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Prerequisite: BIOL 3414 Vertebrate Biology or permission of instr.

COURSE DESCRIPTION: The course is designed for graduate students in biology wanting to acquire a more detailed working knowledge and appreciation of mammalian diversity in structure, function, ethology, and ecology. Knowledge and skills acquired in this course will be useful to field and laboratory studies in ecology, evolution, animal behavior, biogeography, wildlife management, and related disciplines.

LEARNING OUTCOMES: At the completion of this course, students will be able to:
1. Identify characteristics and utilize a classification of mammals.
2. Relate mammalian structure with diet, dentition, and digestion.
3. Understand the role of thermoregulation and water balance to the ecology of mammals.
4. Explain processes involved in sociobiology, reproduction, and predation.
5. Discuss locomotory adaptations in relation to zoogeography.
6. Cite major references in Mammalogy and be able to utilize primary journal articles.
7. Employ mammalogical techniques for study.

AUDIENCE DEFINED: This is a graduate course for students that have not previously taken a course in Mammalogy at the university level.

LECTURES AND TEXTS:
Lectures provide major guidelines for study, reading, and co-ordinating theory with practical experience in the laboratories and field. Text and outside readings are assigned to broaden perspective, provide examples when lecture time is not sufficient, and to encourage a working familiarity with the basic mammalogical literature. Discussion topics will be assigned. Required texts are:

In addition, other books and current references available in the library or on the web will be recommended in lecture, and presentation topics will be assigned. A sampling of some selected book references which are useful to the laboratory and lecture are:


A sampling of some selected journals and articles on mammals:


**COURSE OUTLINE**: Please refer to appended schedule.
LABORATORIES:
Laboratories will also require the lecture texts. A field notebook will be required and field attire (a field pack, tennis shoes, hat, insect repellent, and sun screen) are recommended. Some field studies may be conducted on weekends. A laboratory project will be required, and additional responsibilities assisting undergraduates will be assigned.

CLASS POLICIES:

1. Failure to meet submission deadlines or missing examinations without one week prior notification will result in an “F” for the work in question. Work submitted late or a missed exam requires a written explanation from your physician.

2. Any student involved in providing false or misleading information, plagiarism, classroom misdemeanor, or academic dishonesty will be assigned an “F” for the work in question.

3. According to university policy, an “F” will be assigned if a student withdraws from the course without completing the proper forms for dropping a course.

COURSE GRADES AND REQUIREMENTS:

The final mark will be calculated as an average from the following grades:

1. Lecture Exams: Three one hour exams each worth 100 marks will emphasize lecture material, but may also include related lab exercises, and discussion. Marks: 300

2. Laboratory Exams: Two three hour laboratory exams worth 100 marks each will emphasize laboratory material, but may also include conceptual material from lectures. Marks: 200

3. Laboratory Project: An exhibition, skeletal, or some other practical project will be required (25 pts. data, 25 pts. curation, 25 pts. uniqueness, 25 pts. overall impression). Marks: 100

4. Presentations will be graded for content and presentation. Marks: 100

TOTAL MARKS POSSIBLE: 700
REQUIRED STATEMENTS

**Disability and Veterans’ Services:** Texas A&M University-Corpus Christi is committed to providing persons with disabilities an equal opportunity to access campus facilities, resources and programs. 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. Support and accommodations are also available for returning veterans who experience cognitive and/or physical access issues in the classroom or on campus. Our Office of Disability Services arranges such support and academic accommodations. To make a request, or for more information, call (361) 825-5816 or visit Driftwood 101. It is important to contact the Office of Disability Services in a timely fashion as it will take time for them to review requests and prepare accommodations and accommodation letters.

**Grade Appeals:** As stated in the Texas A&M University-Corpus Christi University Rules and Procedures (Section B [Academic Program], Part 13 [Students]: 13.02.99.C2 [Student Grade Appeals] and 13.02.99C2.01 [Student Grade Appeal Procedures]), a student who believes that he or she has not been held to appropriate academic standards as 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 on 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, consult the University Rules and Procedures specified above (accessible through the University Rules and Procedures website at [http://www.tamucc.edu/provost/university_rules/index.html](http://www.tamucc.edu/provost/university_rules/index.html)). For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.
**SCHEDULE OF LECTURES, LABORATORIES, AND EXAMINATIONS**

This timetable is a general guide to the topics covered in lecture. The sequence may change due to circumstances.

| AUG. 26 | Intro.: texts, refs, syll., proj, tax | LAB. 1 - Skull Review; Keying Characteristics |
| SEPT. 02 | Mammalian Origins; Essays | LAB. 2 - Mammalian Diversity Classification |
| 07 LABOR DAY HOLIDAY | | |
| SEPT. 04 | Dentition | LAB. 3 - Dentition |
| 09 | Diet and Digestion | |
| 11 | Water Relations | LAB. 4 - Integument |
| 14 | Thermoregulation | |
| 16 | Defense and Protection | |
| 18 | Reproduction | |
| 21 | Locomotory Adaptations | LAB. 5 - Locomotion |
| 23 | | |
| 25 EXAM I | | |
| OCT. 02 | Post Mortem; Aquatic Adaptations I | LAB. 6 - Field Exercise |
| 05 | Fossorial Adaptations I | |
| 07 | Fossorial Adaptations II | LAB. 7 - Curation |
| 09 | Study Skin Prep. | |
| 12 | Aerial Adaptations I | LAB. 8 - PRACTICAL I |
| 14 | Exam Preparation | |
| 16 | Mammalian Zoogeography | |
| 19 | Mammalian Zoogeography II | LAB. 9 - Field Trip |
| 21 | Sociobiology I | |
| 23 | Trip Preparation | |
| 26 | Sociobiology II | LAB. 10 – Primatives, Bats |
| 28 EXAM II | | |
| 30 | Selected Topics I | |
NOV.  02  Selected Topics 2
   04  Practical Intro.  LAB. 11 - Primates, Carnivora
   06  Special Topics 3

   09  Special Topics 4
   11  Practical Intro.  LAB. 12 - Rodentia, Lagomorpha
   13  Special Topics 5

   16  Special Topics 6
   18  Prac. Intro.  LAB. 13 - Ungulata, Cetacea
   20  Special Topics 7

   23  Special Topics 8
   25  Exam Preparation  LAB. 14 - PRACTICAL 2
   27  THANKSGIVING HOLIDAY

DEC.  02  Special Topics 9
   04  Special Topics 10  LAB. 15 – Loose Ends
   07  EXAM III

   07  The Mammalian Radiations: Video

FINAL MEETING TBA