Mammalogy: BIOL 5370
Syllabus for Spring 2020

Objective: This lecture course provides an overview of the evolution, diversity, structure, function, and ecology of mammals. It will introduce you to the major groups of mammals and the interplay between structure and function over evolutionary time.

Instructor: Dr. Lucas Moyer-Horner: BIOL 103B, Lucas.M.Horner@utah.edu
Office hours by appointment

Teaching Assistant: Cameron Quintana, kohlschein.cameron@gmail.com
Office Hours: TBA

* Use proper email etiquette in correspondence as follows:
  • Begin emails with a salutation such as “Dear Dr. Horner,” or “Dear Cameron,”
  • Conclude your email with a closing statement such as “Thank you,” or “Sincerely,”
    and include your full name
  • Please include the course name and topic in the subject of the message such as
    “Mammalogy: Digestion question”

* We will stop responding to emails at 7:00 PM each weekday evening, and we are unlikely to respond during weekends. You can generally expect a reply to an email question within one business day (weekday 24-hr period).

Lectures: Mon/Weds: 11:50am-1:10pm, AEB 350

            (the 3rd edition will work as well).
            Book is strongly recommended, though not required. Some copies can be located in the Open Reserve on the 3rd floor of the Marriott Library.

Prerequisites: Evolution and Diversity of Life BIOL 2010 or Fundamentals of Biology II BIOL 1620. In addition, you should have completed at LEAST ONE of the following classes prior to taking this class: Principles of Cell Biology BIOL 2020, Genetics BIOL 2030, Developmental Biology BIOL 3230, Comparative Vertebrate Morphology BIOL 3310, Comparative Physiology BIOL 3320, and/or Ecology and Evolution BIOL 3410. If you have not met these prerequisites, see the instructor.

Course Outcomes
By the end of this course, you will be able to:
  • Identify the unique characteristics of mammals and mammalian precursors
  • Discriminate mammal species into their respective orders
  • Articulate the broad evolutionary strokes that have altered morphological, physiological, and behavioral traits of mammals
  • Connect the science of mammalogy to other, seemingly disparate areas of study
  • Design and critique scientific studies

Teaching and Learning Methods: This course will utilize multiple methods including lectures, in-class problem-sets, take-home multimedia assignments, and discussion concerning selected readings from the primary literature.
Attendance and Lecture Notes: You are responsible for lecture material and taking your own notes during lecture. If unavoidable circumstances prevent you from attending a lecture, you must obtain lecture notes from someone else in the class. Slides will be posted on Canvas before lecture, but copies will not be handed out in class.

Grading: The final grade is based on a total of 650 points. Your grade will be based on the percentage of these points that you earn as follows: A (≥ 93%), A- (92 – 90%), B+ (89 – 87%), B (86 – 83%), etc.

- Exams (best scores of 4 exams out of 5): 400 points
- Take-home assignments (announced): 150 points
- In-class problem sets (unannounced): 100 points
- Extra credit opportunities (announced): 5-10 points each

Exams will be based on material discussed in class. The best study guide for the exams is your own lecture notes. Exams will include short essay, data analysis, multiple choice, and problem-solving questions. There will be five mid-term exams, one of which will be scheduled during the final exam period. Exams will be graded as quickly as possible and returned to you in class. Exam keys will also be posted on the course website. Make-up exams will ONLY be allowed for university-sanctioned absences (i.e., band, debate, student government, and athletics) or cases of sudden illness/injury. If you know you will be missing an exam due to a university-sanctioned absence, you MUST make arrangements to make up the exam prior to the scheduled exam date. If you miss an exam because of a sudden illness/injury, you MUST provide a doctor’s note to make up the exam.

Take home assignments will be announced throughout the semester, at least a week before the due date. These assignments will require you to conduct research outside of class, synthesize information, and present information in various formats (e.g., written reports, videos, or online media). No take home assignments can be dropped.

NOTE about Late assignment policy: Late assignments will be accepted for up to a week and will receive a 10% reduction in the final grade for each calendar day that they are late.

In-class problem sets will comprise a variety of formats. A likely scenario is the presentation of data from a paper in the primary literature. Students will discuss questions related to the data set in small groups. The assignment will consist of individually written responses to the data. There will be roughly one in-class assignment per week. At least one assignment will be dropped.

Course Policies

Regrade request policy. Questions regarding grading of assignments will be considered ONLY if received in writing, within one week of return. Regrade requests are to be submitted to the TA.

Attendance. Regular attendance in class is strongly encouraged. Because the lowest score of each category is dropped, no make-ups are available even for excused absences. Furthermore, attending class is the ONLY way to get points for in-class problem sets.

Classroom Etiquette. Misconduct (e.g., texting, loud talking or sleeping during lectures, inappropriate comments, cheating, etc.) will NOT be tolerated. You are welcome to use your laptop to take notes, but class time is not to be used for surfing the web or checking email as this is distracting for the rest of the class. I expect cell phones to be silenced and put away during class. If I see a phone out during an exam, you will receive a zero for that exam!

Plagiarism Policy. Any assignment in which plagiarism is found will be given a zero. Assignments cannot be “prorated” to take into account the “extent” of plagiarism. The University
Updated 12/26/20

of Utah Student Handbook defines plagiarism as: “the intentional unacknowledged use or incorporation of any other person's work in, or as a basis for, one's own work offered for academic consideration or credit or for public presentation. Plagiarism includes, but is not limited to, representing as one's own, without attribution, any other individual’s words, phrasing, ideas, sequence of ideas, information or any other mode or content of expression.”

**Course Drop Policy.** The withdrawal policy is the University of Utah policy described in the Class Schedule. Friday, January 17th is the last day to drop with no tuition and no notation on one’s transcript. January 17th is also the last day students can elect the CR/NC or audit option; however, CR/NC may be reversed until Friday, April 17th. Friday, March 6th is the last day students can withdraw, but tuition will be assessed and you will receive a W on your transcript. Please verify with the registrar, as these dates are subject to change.

Withdrawal from the course after March 6th requires special permission from the instructors. It will NOT be allowed except in cases of significant medical or personal emergency that must be documented by a medical professional or other relevant person. This is a University of Utah policy.

**University Policies**

*The Americans with Disabilities Act.* The University of Utah seeks to provide equal access to its programs, services, and activities for people with disabilities. If you will need accommodations in this class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, (801) 581-5020. CDS will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in an alternative format with prior notification to the Center for Disability Services. [http://disability.utah.edu/](http://disability.utah.edu/)

**Addressing Sexual Misconduct.** Title IX makes it clear that violence and harassment based on sex and gender (which includes sexual orientation and gender identity/expression) is a civil rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran’s status or genetic information. If you or someone you know has been harassed or assaulted, you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, (801) 581-8365, [http://oeo.utah.edu/](http://oeo.utah.edu/), or the Office of the Dean of Students, 270 Union Building, (801) 581-7066, [https://deanofstudents.utah.edu/](https://deanofstudents.utah.edu/). For support and confidential consultation, contact the Center for Student Wellness, 426 SSB, (801) 581-7776, [http://wellness.utah.edu](http://wellness.utah.edu). To report to the police, contact the Department of Public Safety, (801) 585-2677(COPS).

**Wellness:** Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a student’s ability to succeed and thrive at the University of Utah. For helpful resources contact the Center for Student Wellness, located in the Eccles Student Life Center suite 2100 (801-581-7776): [http://wellness.utah.edu](http://wellness.utah.edu)

**Learners of English as an Additional Language.** If you are an English language learner, please be aware of several resources on campus that will support you with your language and writing development. These resources include: the Writing Center ([http://writingcenter.utah.edu/](http://writingcenter.utah.edu/)); the Writing Program ([http://writing-program.utah.edu/](http://writing-program.utah.edu/)); the English Language Institute ([http://continue.utah.edu/eli/](http://continue.utah.edu/eli/)). Please let me know if there is any additional support you would like to discuss for this class.

**Veterans Support Center:** If you are a student veteran, please visit the Veterans Support Center to learn more about what support they offer. The center is located in the Olpin Union Building room 418 (801-587-7772): [https://veteranscenter.utah.edu/](https://veteranscenter.utah.edu/)
LGBT Resource Center: If you are a member of the LGBTQ+ community, all should be a safe zone. For more information about support offered by the University of Utah, please visit the LGBT Resource Center located in the Olpin Union Building room 409 (801-857-7973): https://lgbt.utah.edu/

Class rosters are provided to the instructor with the student’s legal name as well as “Preferred first name” (if previously entered by you in the Student Profile section of your CIS account). While CIS refers to this as merely a preference, the instructors will honor you by referring to you with the name and pronoun that feels best for you in class, on papers, exams, group projects, etc. Please advise the instructors of any name or pronoun changes (and update CIS) so we can help create a learning environment in which you, your name, and your pronoun will be respected. If you need assistance getting your preferred name on your UID card, please visit the LGBT Resource Center Room 409 in the Olpin Union Building to schedule a time to drop by (M-F 8am-5pm, and 8am-6pm on Tuesdays).

Other important University policies and resources can be found online.
- Academic code of conduct: http://regulations.utah.edu/academics/6-400.php
- Faculty and student responsibilities: http://regulations.utah.edu/academics/6-316.php
- Accommodation policy: http://regulations.utah.edu/academics/6-100.php
- Center for Student Wellness: www.wellness.utah.edu

Note: This syllabus is meant to serve as an outline and guide for our course. Please be aware that we may modify it with reasonable notice to you. We may also modify the Course Schedule to accommodate the needs of our class. Any changes will be announced in class and posted on Canvas under Announcements.
## TENTATIVE Lecture Schedule

<table>
<thead>
<tr>
<th>DATE</th>
<th>TOPIC</th>
<th>BOOK CHAPTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 Jan</td>
<td>Mammalian characteristics</td>
<td>3rd Ed: 1-3, 4th Ed: 1-3</td>
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<tr>
<td>15 Jan</td>
<td>Biogeography Marsupials</td>
<td>3rd Ed: 5, 4th Ed: 6</td>
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<tr>
<td>22 Jan</td>
<td>Integument, Support, Locomotion The “messy mammals”</td>
<td>3rd Ed: 6, 4th Ed: 7</td>
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<tr>
<td>27 Jan</td>
<td>EXAM 1</td>
<td>(6 Jan. – 22 Jan.)</td>
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<tr>
<td>29 Jan</td>
<td>Chiroptera Echolocation</td>
<td>3rd Ed: 13, 4th Ed: 14</td>
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<tr>
<td>3 Feb</td>
<td>Primate Evolution and Ecology Primates</td>
<td>3rd Ed: 14, 4th Ed: 15</td>
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<tr>
<td>5 Feb</td>
<td>Xenarthra (Cingulata &amp; Pilosa), Cetacea, Tubulidentata, Pholidota</td>
<td>3rd Ed: 15, 17, 4th Ed: 16, 21</td>
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<tr>
<td>10 Feb</td>
<td>Rodents &amp; Lagomorphs</td>
<td>3rd Ed: 18, 4th Ed: 18</td>
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<td>12 Feb</td>
<td>Carnivora, Proboscidea, Hyracoidea, Sirenia</td>
<td>3rd Ed: 16, 19, 4th Ed: 17, 19</td>
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<tr>
<td>19 Feb</td>
<td>EXAM 2</td>
<td>(29 Jan. – 12 Feb.)</td>
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<tr>
<td>24 Feb</td>
<td>Ungulates</td>
<td>3rd Ed: 20, 4th Ed: 20</td>
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<tr>
<td>2 Mar</td>
<td>Metabolism &amp; Thermoregulation</td>
<td>3rd Ed: 9, 4th Ed: 10</td>
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<tr>
<td>4 Mar</td>
<td>Adaptation to Extreme Environments</td>
<td>3rd Ed: 9, 4th Ed: 10</td>
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<tr>
<td>8-15 Mar</td>
<td>Spring Break (NO CLASSES, hooray!)</td>
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<tr>
<td>18 Mar</td>
<td>EXAM 3</td>
<td>(24 Feb. – 16 Mar.)</td>
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30 Mar  | Life History, Habitat Selection, & Migration  | 3rd Ed: 24  | 4th Ed: 25,26  
1 Apr   | Community Ecology & Species Interactions     | 3rd Ed: 21,26 | 4th Ed: 22,27  
6 Apr   | **EXAM 4**  | (23 Mar. – 1 Apr.)  
8 Apr   | Domestication                                  | 3rd Ed: 28  | 4th Ed: 29  
15 Apr  | Conservation Biology & Global Climate Change   | 3rd Ed: 29  | 4th Ed: 30  
20 Apr  | 2019 Mammalogy Independent Film Festival & Wrap-up  
27 Apr  | **FINAL EXAM** (10:30am-12:30pm)               | Comprehensive, but biased for lectures 8 Apr. – 15 Apr.  

Date & Time for Final Exam are available here:  
[https://registrar.utah.edu/academic-calendars/final-exams-spring.php](https://registrar.utah.edu/academic-calendars/final-exams-spring.php)