

University of Southern California
Spring 2024
Syllabus
BISC363 – MAMMALOGY (4 units)

Instructors

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Teaching Assistant

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Please note: All three of us can easily schedule office hours by appointment to accommodate your schedules.

Times

Lectures: Monday and Wednesday 10:00-11:20 am.
Lab: Fridays 10:00-11:50 am.

Course Description

Mammalogy introduces students to the morphology, classification, distribution, and physiology of mammals. It involves identification and field study of local species as well as study in lecture and lab of representatives of the major groups worldwide. **We will hold our lab across the street at the Natural History Museum, using their collections as a learning tool.**

Objectives of the Course

1. Become familiar with mammals on a world-wide basis – their major groups, relationships, and aspects of their natural history. We will do this primarily through the lectures and field trips.
2. Become familiar with the mammals of North America and southern California (families, genera and species) - identification and distribution, plus some information on habitat preferences and habits. We will do this primarily through the laboratory work and an overnight field trip in which we will live-trap small rodents (or adjusted per covid-related rules).
3. Become familiar with some basic techniques of studying mammals - live capture of small mammals, and identification of tracks, scats, and other sign.
4. Appreciate the ecological and evolutionary forces that have shaped mammal diversity on the planet.

Prerequisite

None, just natural curiosity and excitement to learn. Please note: if you are a freshman or sophomore and want to register for this class, you need to contact Matt Dean (matthew.dean@usc.edu), who will get you D clearance to register.

Books

Recommended textbook:

Vaughan, Ryan, & Czaplewski. 2015. Mammalogy, 6th Ed., Jones & Bartlett Publishers, Sudbury, MA

Recommended laboratory textbook:

Kelt, D. A. and J. L. Patton. A Manual of the Mammalia.
(<https://press.uchicago.edu/ucp/books/book/chicago/M/bo28915892.html>)

-or-

Dines, J. P., ed. Lawlor's Handbook to the Orders and Families of Living Mammals (on Blackboard already).

Grading System Overview (1000 points total):

<u>Lecture:</u>	<u>Lab</u>
Lecture Exam 1..... 100 points	Skull quiz..... 75 points
Lecture Exam 2..... 100 points	Lab Practical 1..... 150 points
Final Exam..... 100 points	Lab Practical 2..... 150 points
Family presentation 75 points	Squirrel tracking 100 points
	Boyd field trip 150 points

Grading System Details:

Lecture exams: The three lecture exams may include "fill-ins", "multiple choice", matching, and short answer or essay questions. Lecture exam 3 is actually the final and will not be cumulative.

Family presentation: Each student will research and present one mammal family to the class. These presentations are about 5 minutes. You will introduce the family, describing morphological features, ecology, and taxonomy of its members. Presentations will be spread throughout the semester depending on which family you choose. Your instructors will guide you through slide creation.

Skull quiz: Because so much mammalogy depends on identifying features in skulls, we will have a short quiz on skull morphology early in the semester. We will ask you to identify various features on a skull.

Lab Practicals: The two lab practicals will include "fill-ins", "multiple choice", matching, and short answer or essay questions. These practicals will take place in lab, and focused on specimens (normally skulls).

Squirrel tracking: Each student will participate in "tracking" squirrels that we have fit with a radio collar on campus. This involves checking out radio telemetry gear and walking through campus, noting GPS and timepoint of various squirrels and inputting their data on our centralized database. We will eventually map out territories of individual squirrels, then compare with Dr. Jennifer Duggan's course at Cal State Monterey, whose students are doing the same but for a different species of squirrel.

Boyd field trip: We will spend one over-night at the Boyd Research Center to trap, identify, and learn about desert rodents. This semester, it will most likely occur April 23. Details to follow.

Make-up Policy:

Exams can not be made-up. The field trip can not be made up, although we recognize that some peoples' schedules simply will not work. If students present compelling reasons for being unable to attend (at least one week in advance of field trip), we may consider alternative assignments. In the case of medical emergencies, we may prorate your points, but only if an excuse considered valid by faculty (i.e., doctor's note that clearly states student was unable to take exam, for example) is presented in a timely fashion. An acceptable written excuse or documentation must be provided to the faculty. The final exam will be administered only on the date and time set by the University.

The course is not curved. Letter grades will follow a straight scale: 90% and above leading to A, 80-90% leading to B, etc. Pluses and minuses are assigned by dividing each range in corresponding halves (A, A-) or thirds (B+, B, B-, C+, ...).

Date	Topic	Leader
1/8/24	Intr., Origins of Mammals (Lecture)	Jim Dines
1/10/24	Mammal Characters (Lecture)	Jim Dines
1/12/24	Osteology: skull and skeleton (Lab)	Charlie Toney
1/15/24	MLK Day	-
1/17/24	Reproduction; Monotremes (Lecture)	Jim Dines
1/19/24	Skull quiz; Monotremes and Metatherians (Lab)	Charlie Toney
1/22/24	Metatherians (Lecture)	Jim Dines
1/24/24	Insectivorans; Xenarthra (Lecture)	Jim Dines
1/26/24	Eulipotyphla; Xenarthra; Pholidota (Lab)	Charlie Toney
1/29/24	Primates I (Lecture)	Jim Dines
1/31/24	Primates II; Bats I (Lecture)	Jim Dines
2/2/24	Primates; Chiropterans (Lab)	Charlie Toney
2/5/24	Bats II (Lecture)	Jim Dines
2/7/24	LECTURE EXAM 1 (Lecture)	Jim Dines
2/9/24	Carnivorans (Lab)	Charlie Toney
2/12/24	Carnivorans (Lecture)	Jim Dines
2/14/24	Paenungulata: Perissodactyla (Lecture)	Jim Dines
2/16/24	Artiodactyls (incl. Cetacea); Perissodactyla (Lab)	Charlie Toney
2/19/24	President's Day	-
2/21/24	Artiodactyla I (incl. Cetacea) (Lecture)	Jim Dines
2/23/24	LAB PRACTICAL I (Lab)	Charlie Toney
2/26/24	Artiodactyla II (incl. Cetacea) (Lecture)	Jim Dines
2/28/24	Artiodactyla III (incl. Cetacea) (Lecture)	Jim Dines
3/1/24	Paenungulates; Perissodactyla (Lab)	Charlie Toney
3/4/24	Rodents I (Lecture)	Matt Dean
3/6/24	Rodents II ; Lagomorphs (Lecture)	Matt Dean
3/8/24	Artiodactyla (incl. Cetacea) (Lab)	Charlie Toney
3/11-15/2022	Spring Break	-
3/18/24	Evolutionary Ecology I (Lecture)	Matt Dean
3/20/24	LECTURE EXAM 2 (Lecture)	Matt Dean
3/22/24	Rodents; Lagomorphs (Lab)	Charlie Toney
3/25/24	Evolutionary Ecology II (Lecture)	Matt Dean
3/27/24	Biogeography I (Lecture)	Matt Dean
3/29/24	Local Species (Lab)	Charlie Toney
4/1/24	Biogeography II (Lecture)	Matt Dean
4/3/24	Behavior (Lecture)	Matt Dean
4/5/24	Squirrel tracking (Lab)	Charlie Toney
4/8/24	Coevolution with parasites (Lecture)	Kayce Bell
4/10/24	Sexual Selection I. Body size (Lecture)	Matt Dean
4/12/24	Squirrel tracking (Lab)	Charlie Toney
4/15/24	Sexual Selection II. Mating (Lecture)	Matt Dean
4/17/24	Sexual Selection III. Genitalia (Lecture)	Matt Dean
4/19/24	Squirrel tracking (Lab)	Charlie Toney
4/22/24	Sexual Selection IV. Genome (Lecture)	Matt Dean
4/24/24	Sexual Selection V. Humans (Lecture)	Matt Dean
4/26/24	LAB PRACTICAL II (Lab)	Charlie Toney

Final exam: Monday, May 6, 8-10 a.m. The final exam will not be cumulative

Statement on Academic Conduct and Support Systems

Academic Integrity:

The University of Southern California is a learning community committed to developing successful scholars and researchers dedicated to the pursuit of knowledge and the dissemination of ideas. Academic misconduct, which includes any act of dishonesty in the production or submission of academic work, compromises the integrity of the person who commits the act and can impugn the perceived integrity of the entire university community. It stands in opposition to the university's mission to research, educate, and contribute productively to our community and the world.

All students are expected to submit assignments that represent their own original work, and that have been prepared specifically for the course or section for which they have been submitted. You may not submit work written by others or "recycle" work prepared for other courses without obtaining written permission from the instructor(s).

Other violations of academic integrity include, but are not limited to, cheating, plagiarism, fabrication (e.g., falsifying data), collusion, knowingly assisting others in acts of academic dishonesty, and any act that gains or is intended to gain an unfair academic advantage.

The impact of academic dishonesty is far-reaching and is considered a serious offense against the university. All incidences of academic misconduct will be reported to the Office of Academic Integrity and could result in outcomes such as failure on the assignment, failure in the course, suspension, or even expulsion from the university.

For more information about academic integrity see [the student handbook](#) or the [Office of Academic Integrity's website](#), and university policies on [Research and Scholarship Misconduct](#).

Please ask your instructor if you are unsure what constitutes unauthorized assistance on an exam or assignment, or what information requires citation and/or attribution.

Students and Disability Accommodations:

USC welcomes students with disabilities into all of the University's educational programs. [The Office of Student Accessibility Services](#) (OSAS) is responsible for the determination of appropriate accommodations for students who encounter disability-related barriers. Once a student has completed the OSAS process (registration, initial appointment, and submitted documentation) and accommodations are determined to be reasonable and appropriate, a Letter of Accommodation (LOA) will be available to generate for each course. The LOA must be given to each course instructor by the student and followed up with a discussion. This should be done as early in the semester as possible as accommodations are not retroactive. More information can be found at osas.usc.edu. You may contact OSAS at (213) 740-0776 or via email at osasfrontdesk@usc.edu.

Support Systems:

[Counseling and Mental Health](#) - (213) 740-9355 – 24/7 on call

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

[988 Suicide and Crisis Lifeline](#) - 988 for both calls and text messages – 24/7 on call

The 988 Suicide and Crisis Lifeline (formerly known as the National Suicide Prevention Lifeline) provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week, across the United States. The Lifeline is comprised of a national network of over 200 local crisis centers, combining custom local care and resources with national standards and best practices. The new, shorter phone number makes it easier for people to remember and access mental health crisis services (though the previous 1 (800) 273-8255 number will continue to function indefinitely) and represents a continued commitment to those in crisis.

[Relationship and Sexual Violence Prevention Services \(RSVP\)](#) - (213) 740-9355(WELL) – 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender- and power-based harm (including sexual assault, intimate partner violence, and stalking).

[Office for Equity, Equal Opportunity, and Title IX \(EEO-TIX\)](#) - (213) 740-5086

Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

[Reporting Incidents of Bias or Harassment](#) - (213) 740-5086 or (213) 821-8298

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office for Equity, Equal Opportunity, and Title for appropriate investigation, supportive measures, and response.

[The Office of Student Accessibility Services \(OSAS\)](#) - (213) 740-0776

OSAS ensures equal access for students with disabilities through providing academic accommodations and auxiliary aids in accordance with federal laws and university policy.

[USC Campus Support and Intervention](#) - (213) 740-0411

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

[Diversity, Equity and Inclusion](#) - (213) 740-2101

Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

[USC Emergency](#) - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

[USC Department of Public Safety](#) - UPC: (213) 740-6000, HSC: (323) 442-1200 – 24/7 on call

Non-emergency assistance or information.

[Office of the Ombuds](#) - (213) 821-9556 (UPC) / (323-442-0382 (HSC)

A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.

[Occupational Therapy Faculty Practice](#) - (323) 442-2850 or otfp@med.usc.edu

Confidential Lifestyle Redesign services for USC students to support health promoting habits and routines that enhance quality of life and academic performance.