

University of Southern California
Spring 2020
Syllabus
BISC499 – MAMMALOGY (4 units)

Instructors

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Teaching Assistant

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

Times

Lectures: Monday and Wednesday 9:00-10:20 am. Location: RRI121

Lab: Fridays 9:00-10:50 am. Location: Natural History Museum across the street (details to follow).

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.

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.
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.

Course Structure and Attendance:

There are 2 lectures and 1 lab each week. Students are responsible for all material and activities covered in lecture and lab whether the student chooses to attend or not. All students are expected to participate in the field trip.

Labs will be held across the street at the Natural History Museum of Los Angeles (room TBD).

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.

Field Trip

All students are expected to participate in the weekend-long field trip to UC Reserve at Deep Canyon Station. Use of the facility will be covered, but travel expenses will not be covered. Therefore, students are encouraged to car pool and to fairly share the resulting travel expenses. It may be a little cold at Deep Canyon when we stay overnight on Saturday, April 20. Students are strongly encouraged to have warm clothing, sleeping bags and tents available for this trip.

Campus squirrels

The entire class will take part in documenting squirrel ecology on USC's campus. This will entail observing them for identifying features, and marking out their territories. We may also trap, tag, and release some to enable more careful individual identification. We may also genotype them to learn about their familial relationships.

Books

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

Skull identification guide: Dines, J. P., ed. Lawlor's Handbook to the Orders and Families of Living Mammals.

Blackboard Site:

Announcements will be posted on the BISC499 Blackboard site. It is the student's responsibility to check the Blackboard site regularly for new announcements and PowerPoints for lecture.

Grading System:

<u>Lecture:</u>	<u>Lab:</u>
Lecture Exam 1 100 points	Lab Practical 1..... 100 points
Lecture Exam 2 100 points	Lab Practical 2..... 100 points
Lecture Exam 3 100 points	Skull Quiz 50 points
Oral Presentation 50 points	Field Trip to Desert..... 100 points

Examination Method:

The three lecture exams may include "fill-ins", "multiple choice", matching, identifications and short answer or essay questions. The Lab practical exams will consist of a series of timed stations through which students will circulate (one student per station at any given time) in a specific order. Each station will contain some kind of mammal specimen with accompanying questions. The lab practicals will be administered during the lab period on the dates indicated on the lab schedule.

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) 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.

week	Professor	dates	lecture (MW)	lab (F)
1	JPD	13-Jan	Intr., Origins of Mammals	Osteology: skull and skeleton
	JPD	15-Jan	Mammal Characters	
2	JPD	20-Jan	HOLIDAY (MLK Day)	Skull quiz; Monotremes and Metatherians
	JPD	22-Jan	Reproduction; Monotremes	
3	-	27-Jan	Metatherians	Eulipotyphla; Xenarthra; Pholidota
	JPD	29-Jan	Insectivorans; Xenarthra	
4	JPD	3-Feb	Primates I	Primates; Chiropterans
	JPD	5-Feb	Primates II; Bats I	
5	JPD	10-Feb	Bats II	Carnivores
	JPD	12-Feb	Review	
6	-	17-Feb	HOLIDAY (President's Day)	Artiodactyls (incl. Cetacea); Perissodactyla
	JPD	19-Feb	LECTURE EXAM 1	
7	-	24-Feb	Carnivores	LAB PRACTICAL I
	JPD	26-Feb	Paenungulata: Perissodactyla	
8	JPD	2-Mar	Artiodactyla I (incl. Cetacea)	Paenungulates; Perissodactyla
	JPD	4-Mar	Artiodactyla II (incl. Cetacea)	
9	JPD	9-Mar	Artiodactyla III (incl. Cetacea)	Artiodactyla (incl. Cetacea)
	MDD	11-Mar	Rodents I	
10	-	16-Mar	Spring Break	
	-	18-Mar		
11	MDD	23-Mar	Rodents II ; Lagomorphs	Rodents; Lagomorphs
	MDD	25-Mar	LECTURE EXAM 2	
12	-	30-Mar	Evolutionary Ecology	Local Species
	MDD	1-Apr	Biogeography I	
13	MDD	6-Apr	Biogeography II	Squirrel observations
	MDD	8-Apr	Conservation I	
14	MDD	13-Apr	Conservation II	Squirrel observations
	MDD	15-Apr	Sexual Selection I. Body size	
15	MDD	20-Apr	Sexual Selection II. Mating	Squirrel observations
	MDD	22-Apr	Sexual Selection III. Genitalia	
16	MDD	27-Apr	Sexual Selection IV. Genome	LAB PRACTICAL II
	MDD	29-Apr	Sexual Selection V. Humans	
Final Exam		Friday May 8 8-10 am		

Academic Conduct:

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Part B, Section 11, “Behavior Violating University Standards” policy.usc.edu/scampus-part-b. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct>.

Support Systems:

Student Counseling Services (SCS) – (213) 740-7711 – 24/7 on call

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

National Suicide Prevention Lifeline – 1 (800) 273-8255

Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. www.suicidepreventionlifeline.org

Relationship and Sexual Violence Prevention Services (RSVP) – (213) 740-4900 – 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender-based harm. engemannshc.usc.edu/rsvp

Sexual Assault Resource Center

For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website: sarc.usc.edu

Office of Equity and Diversity (OED)/Title IX Compliance – (213) 740-5086

Works with faculty, staff, visitors, applicants, and students around issues of protected class. equity.usc.edu

Bias Assessment Response and Support

Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. studentaffairs.usc.edu/bias-assessment-response-support

The Office of Disability Services and Programs

Provides certification for students with disabilities and helps arrange relevant accommodations. dsp.usc.edu

Student Support and Advocacy – (213) 821-4710

Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic. studentaffairs.usc.edu/ssa

Diversity at USC

Information on events, programs and training, the Diversity Task Force (including representatives for each school), chronology, participation, and various resources for students. diversity.usc.edu

USC Emergency Information

Provides safety and other updates, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible. emergency.usc.edu

USC Department of Public Safety – UPC: (213) 740-4321 – HSC: (323) 442-1000 – 24-hour emergency or to report a crime. Provides overall safety to USC community. dps.usc.edu