

# BSCI 335 Mammalogy Laboratory

Spring 2022

# **Learning Outcomes**

The Mammalogy Laboratory will introduce students to the biology of the class Mammalia through hands-on activities, using taxidermized specimens, skeletons and skulls, prepared slides, dissections, and computer software. This course will give students experience in morphological measurements, comparative anatomy, mammal classification and dichotomous keys, behavioral studies, population ecology, phylogenetic techniques to study evolution and physiology, and the scientific process of research.

After successfully completing this course students will be able to:

- Describe and classify organisms to the order or family level based on morphological traits, such as skull and teeth features, hair and skin type, reproductive structures, and limb ratios.
- Compare and contrast important mammalian taxonomic groups using dichotomous keys, dental formulae, and identification of environmental adaptations.
- Quantify mammalian behavior, population sizes, and distribution.
- Use phylogenetic techniques to understand the physiology and evolution of mammals.
- Conduct a research project that uses scientific methods, data collection, analysis, and writing to answer a scientific question about mammalian behavior, ecology, or physiology and evolution.

# Required Resources

Mammalogy Laboratory Manual:

Martin, R.E., Pine, R.H. and DeBlase, A.F. 2011. A Manual of Mammalogy 3/e. Long Grove, IL: Waveland Press.

Students will also need to download each week's laboratory assignment hand-out. These can be accessed from the BSCI 335 ELMS page, under either Assignments or Files.

#### Dr. Kaci Thompson

301-405-2160 kaci@umd.edu

#### **Class Meets**

T 2-4:50 pm W 2-4:50 pm

In-Person: HJ Patterson 2230 Virtual: Zoom (Meeting Info on ELMS "Zoom" Tab)

#### Office Hours

By appointment

#### **Teaching Assistants**

Nicole Barbour nbarbour@umd.edu

#### **Prerequisites**

Min grade C- in BSCI 160/161 or BSCI 106 Min grade C- BSCI 207 Past completion or current enrollment in BSCI 334

#### **Course Communication**

Important course information will be relayed via ELMS messaging inbox or the announcement board. Any questions or communication from students should be sent through email or ELMS messaging.

## Campus Policies, Learning Assessments, and Lab Schedule

It is our shared responsibility to know and abide by the University of Maryland's policies that relate to all courses, which include topics like:

- Academic integrity
- Student and instructor conduct
- Accessibility and accommodations

- Attendance and excused absences
- Grades and appeals
- Copyright and intellectual property

Assignment of Grades: Each lab requires completion of a written assignment and a quiz. Assignments will take the form of worksheets and discussion questions (5-20 points each). These assignments will be graded mostly off of completion. Quizzes will have questions based on material from the current week's lab (20 points each) and will be a mixture of multiple choice and open-answer questions. Quizzes will be distributed over ELMS and will allow multiple attempts. There will be one research project that be evaluated based on a proposal worksheet (20 points), presentation (15 points), and formal lab report (50 points)- it will be the choice of the student on whether this is an individual or group-based project (limit 3 members max). Guidelines and grading rubrics for these will be available for download.

Additionally, **attendance is mandatory**. Participation in lecture discussions and laboratory activities will be awarded with points (5 points available per session).

All assessment scores will be posted on the course ELMS page. If students would like to review any of their grades, or have questions about how something was scored, they should email their assigned laboratory TA to schedule a time to meet in their office hours.

Learning		Points	Category	Category
Assessments	#	Each	Total	Weight
Participation: points given for participating in lab discussions	10	5	50	11%
Assignments (AS): worksheets completed during and after lab	9	5-15	115	26%
Quizzes (Q): Quizzes based on weekly lab material	10	20	200	44%
Research Project (RP): proposal, presentation, and formal report	3	15-50	85	19%
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Final letter grades are assigned based on the percentage of total assessment points earned. Being close to a cutoff is not the same as making the cut (89.99  $\pm$  90.00). Exceptions are not made for this, as it would be unethical to make exceptions for some and not others.

Fin	nal Grad	e C	utoffs						
+	97.00%	+	87.00%	+	77.00%	+	67.00%		
A	94.00%	В	84.00%	C	74.00%	D	64.00%	F	<60.0%
-	90.00%	-	80.00%	_	70.00%	-	60.00%		

Attendance: Attendance to lab, including Zoom sessions, is mandatory. Role will be taken in the first 10 minutes of class and if over Zoom, students are expected to have their camera turned on. If you are absent for a University approved reason (e.g. illness, death in the family, religious holiday, official University business), you must present documentation to the TA within one week of the missed lab to make up any missed points. If you are experiencing technical difficulties joining a Zoom session or working on assignments, you are expected to email or message your lab TA immediately (messages must be sent within 1 hour of the technical difficulty experienced). Absences without appropriate documentation or prompt notification to the TA (as with technical difficulties) will be considered unexcused. Students with three or more unexcused absences will fail the class.

Assignments: Students are expected to download each week's assignments and submit via ELMS (available on the BSCI 335 ELMS course space, <a href="http://www.elms.umd.edu">http://www.elms.umd.edu</a>). Unless otherwise specified, students have one week to complete the assignments associated with each lab. Assignments are due at the beginning of the lab period. Late assignments will be penalized 10% of the total point value for that assignment per day of lateness. Assignments will be graded with SpeedGrader in ELMS and mostly off of completion and timely submission.

*Final Report*: The final report will also be submitted to ELMS and graded in SpeedGrader, with comments and points awarded indicated in red or orange. Final reports must be based on the approved project proposed by the student(s) earlier in the semester. Students may choose whether to make this an individual or group-based project, with the caveat that group members are expected to contribute equally to the final project and work.

Academic Integrity: Academic dishonesty will not be tolerated. Lab reports will be automatically passed to Turn It In and high scores will be flagged. Students are expected to work individually on quizzes and assignments, unless otherwise specified.

The University of Maryland College Park has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. This Code sets standards for academic integrity at Maryland for all undergraduate and graduate students. Students are responsible for upholding these standards for this course. It is very important for students to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. For more information on the Code of Academic Integrity or the Student Honor Council, please visit <a href="http://shc.umd.edu/SHC/StudentAcademicDishonesty.aspx">http://shc.umd.edu/SHC/StudentAcademicDishonesty.aspx</a>.

## Get Some Help!

Students that are struggling with reaching performance goals should explore the various campus resources available (listed below, the majority of which are free) and contact their assigned laboratory TA for additional help and guidance.

For tutoring services, students should visit <u>tutoring.umd.edu</u>.

For writing and communication skills help, students should visit <u>ter.ps/writing</u> and schedule an appointment with the campus Writing Center.

For counseling services, students should visit <u>counseling.umd.edu</u>.

For general assistance, students should visit go.umd.edu/assistance.

For basic needs security (including inability to purchase groceries or food or the lack of a safe place to live), students should visit go.umd.edu/basic-needs.

#### Names/Pronouns and Self Identifications

The University of Maryland recognizes the importance of a diverse student body and is committed to fostering inclusive and equitable classroom environments. Students are encouraged to tell their assigned TA and classmates how they want to be referred to both in terms of their name and pronouns (he/him, she/her, they/them, etc.). The pronouns someone indicates are not necessarily indicative of their gender identity. Students should visit trans.umd.edu to learn more.

Self-identification, in terms of gender, race, class, sexuality, religion, and disability (among all aspects of personal identity), is the student's choice whether to disclose and should be self-identified, not presumed or imposed. Students are asked to respect the self-identification of their peers if disclosed to them and to report any concerns about violations of this respect (whether it be to them personally or to their peers) to either their assigned TA or the lecture professor.

# **Course Schedule**

**AS** = Assignment from the previous week due

**RP** = Research Project piece due (proposal, presentation, or formal report)

 $\mathbf{Q}$  = Quiz on weekly lab material due

DATE		DURING OUR CLASS MEETING	DUE BEFORE CLASS
Jan	25/26	NO LAB MEETING	Assignments are due before class
Feb	1/2	Introduction to Mammalogy & Syllabus Lab 1- Skull Features, Project Introduction	-
Feb	8/9	Workshop - Writing a Research Proposal, Scientific Writing, and Individual Project Discussions	Q-1 (Syllabus)
Feb	15/16	Lab 2- Comparative Anatomy	-
Feb	22/23	Lab 3- Integument, Horns, and Antlers	AS-1, AS-2 Q-2 (Skulls), Q-3 (Comp Anat) RP (Proposal)
Mar	1/2	Lab 4- Limbs and Locomotion	AS-3 Q-4 (Integument)
Mar	8/9	Lab 5- Reproduction	AS-4 Q-5 (Limbs and Locomotion)
Mar	15/16	Spring Break (No Lab)	-
Mar	22/23	Lab 6- Observing Behavior	AS-5 Q-6 (Reproduction)
Mar	29/30	Lab 7- Evolution and Physiology	AS-6 Q-7 (Behavior)
Apr	5/6	Lab 8- Spatial Distributions	AS-7 Q-8 (Evo and Physiology)
Apr	12/13	Lab 9- Populations	AS-8 Q-9 (Spatial Distributions)
Apr	19/20	Workshop (optional) – Basic Statistical Analysis, using R and Excel	AS-9 Q-10 (Populations)
Apr	26/27	Final Project Presentations	RP (Presentation)
May	3/4	No Labs This Week (FINAL REPORT DUE)	RP (Final Report Due)

**Note**: This is a tentative schedule, and subject to change as necessary – monitor the course ELMS page for current deadlines. In the unlikely event of a prolonged university closing, or an extended absence from the university, adjustments to the course schedule, deadlines, and assignments will be made based on the duration of the closing and the specific dates missed.