TEXAS A&M UNIVERSITY
SAN ANTONIO

Department of Natural Sciences

Fall 2026

BIOL 4332: Primatology, BIOL 4132: Primatology Lab



COURSE INSTRUCTOR: Aaryn Mustoe, Ph.D.

OFFICE LOCATION: SciTech 311 (lobby area)

EMAIL: amustoe@tamusa.edu **
(***as an "adjunct" faculty this is the preferred method of communication*)

CLASS TIMES: Monday & Wednesday 3:00-5:45

CLASS LOCATIONS:
Monday Lecture: Senator Frank L. Madla 353 | Wednesday Lab: Central Academic 310

STUDENT OFFICE HOURS: Wednesday 1:45-3:00pm (or by appointment), SciTech 311 Lobby Area

What are Student Office Hours?

This is dedicated time through the week for me to meet with you 1 on 1. While I make myself assessible before, during, and after class (and electronically through email), there is plenty of reasons you might find yourself needing time to work directly with me outside of class time.

COURSE FORMAT: In person only. The course is 3-credits lecture and 1-credit laboratory. Lectures occur on Mondays and labs occur on Wednesdays. These are graded independently (see grading).

TEXTBOOK/READING MATERIALS: There is no required textbook for this course. Reading materials will be posted to Blackboard.

PRIMATOLOGY COURSE DESCRIPTION: Primates are our closest living relatives. Identifying significant features of primate diversity and analyzing how these features are shaped by their anatomy, physiology, ecology, behavior, and social societies will better inform us about our own human adaptations and experiences. We will examine morphological, ecological, behavioral, and evolutionary traits of the Order Primates. We will apply these key concepts to formulate our own behavioral assessments of primates in order to communicate and summarize how primates play a pivotal role in biological and anthropological research. Finally, we will critically evaluate significant and diverse primate conservation strategies and reflect on their global importance. Emphasis will focus primarily on nonhuman primates, however there will be discussion comparatively to human behavior, ecology, and evolution when appropriate and desired. This course will be a reading, discussion, and thought-intensive exploration of the fascinating world of primates! Fundamentally, as part of the biology curriculum, our survey of primatology will be rooted in biological theory.

STUDENT LEARNING OBJECTIVES:

1. Classify extant primate diversity and identify how this diversity is shaped by anatomy, physiology, and ecology.
2. Evaluate features of nonhuman primate behavior, communication, cognition, and culture, and analyze similarities and differences in these features across primates, including humans.
3. Propose and develop new behavioral ethograms to measure and collect behavioral sampling data on living primates that addresses an outstanding research question in primatology.
4. Develop practical skills used by field, zoo and lab researchers to study primates
5. Formulate and communicate a scientific style manuscript and presentation that interprets and explains the key findings from research data collected on primates.
6. Summarize the biological importance of primate conservation and reflect on its cultural significance, meaning, and expectations.
7. Develop an appreciation for the ethics, value, scientific and practical contribution of primates in research.

COURSE DESIGN/FORMAT:

- **The lecture course** will consist of traditional lectures and class discussions to integrate the reading material (primary literature including research studies and reviews) into the broader framework of primatology research. Course materials will be presented using a combination of brief presentations, videos, small group discussion and activities. Course assignments and exams will vary in scope, assessment, and format to cater to diverse learning styles and strengths.
- **The laboratory course** will provide students the opportunity to explore primate diversity, characteristics and behavior. The students will develop a research question, develop a plan for data collection, collect data, analyze and present results from the studies of primates using a variety of resources depending on the student needs and interests. Examples may include non-invasive behavioral studies of captive baboon colonies here in the area, the processing and analysis of banked biosamples (urine/feces) for measures of hormones etc., or analyses of meta-data from publicly available data repositories on primates.

COURSE EXPECTATIONS: In order to succeed in this course (like any course), it is important that the student attend every class and laboratory period. The student is expected to come to class prepared and having read the materials prior to class. The student must be on time to class and ready to participate in the group discussion. Students are required to be respectful of each other and their learning environment in both the classroom and the lab. It is my goal to help you succeed, so I encourage you to actively communicate with me if there are concerns about course assignments, pace, or rigor. While I do my best to identify issues students may be experience, as a college student, it is your responsibility to seek out help when needed.



GRADING AND COURSE ASSIGNMENTS: My teaching philosophy relies on the use of various formats of course activities and assessment to ensure that all students have the opportunity to do well, be better prepared for scientific inquiry outside of the classroom, and to broaden the appreciate for the human experience via learning about our closest living relatives, the primates.

Final Grade Breakdown: *Note* You will earn a separate final grade for both lecture and lab.*

TAMUSA Grading Scale is as follows:

% of Total Points	Letter Grade
90 –100	A
80 –89	B
70 –79	C
60 –69	D
< 59.5	F



Lecture Assignments (% of final grade points)

- Primate Trivia Quiz (5%)
- Primate Fact Sheet/Brochures (5%)
- **Midterm Exam** (25%)
- Case Studies in Primate Cognition (5%)
- Primatology in the Media Assignment (15%)
- **Conservation Presentation** (20%)
- **Final Exam** (25%)



Lab Assignments (% of final grade points)

- Live (webcam) Primate Project Proposal (10%)
- **Live (webcam) Primate Project Report** (20%)
- Morphological Phylogeny Worksheet (5%)
- Dimorphism Data Project Very Mini Report (5%)
- Molecular Phylogeny Worksheet (5%)
- Primate Follow Data Project Mini Report (10%)
- Brain Area Comparison Worksheet (5%)
- SNPRC/Final Project Proposal (10%)
- **SNPRC/Final Project Report** (30%)

Descriptions of assignments/projects and rubrics will be posted as they become assigned. It is typical for large assignments to be assigned and then due at least 3-4 weeks after (such as projects), while small quizzes and homework activities and lab reports are assigned in class and due either in class or the next class. See the course schedule for a layout of when assignments are due. **This will also be regularly communicated in class and through blackboard announcements/email**.

MAKE-UP POLICIES AND LATE WORK POLICIES: If you miss a class it is up to you to coordinate with me or a classmate to ensure completion of activities, **particularly for lab activities**. **Most lab activities cannot be made up**. Some activities may be "made up" if they can be completed with equal rigor off-campus; while others cannot be made up if it requires in person space and resources. Absences are evaluated per A&M SA policies as needed. Part of successfully performing an assignment is the task of completing it by assigned due date. **Late work will be penalized 10% per day**. However, I am VERY flexible for those who need extra time, **so if you need an extra day then please ask ahead of time—life happens and I understand that**. However, time management is important and I want to reward that too.

BLACKBOARD AND COURSE COMMUNICATION: All grades and assignments will be posted and accessible through the course's Blackboard site. Students must log-in regularly to both the Blackboard site and to their TAMUSA email account to keep updated on information related to the class.

E-mails: Each student MUST have an active TAMUSA e-mail account. This will be the e-mail address that is used for any communication between you and your instructor. Students who e-mail instructor Monday-Thursday ordinarily can expect a response within 48 hours. Students who e-mail Friday-Sunday ordinarily can expect a response by 9:00 PM on Monday. If you email me and do not receive a response in time, **it is DEFINITELY OK to email me again to remind me**. Just be nice and remind me that you are awaiting my response ☺ – This is much more preferable to me than your email being lost among the wave of emails I receive, and the student having the feeling of being ignored. That will make us both sad.

GENERAL COMMENTS ABOUT SUCCESS IN THIS CLASS:

- ✓ **Attend class.** This is the number one way to succeed (or not succeed if you don't). **Being presented and engaged is the number one predictor** ** **for** student success.
- ✓ Develop a **schedule** to stay on pace with course readings and projects.
- ✓ **Participate** in group discussions but also find time to work independently.
- ✓ **Develops study groups** if you like to work with others.
- ✓ Ask for help when you need (it is my job to help you and I am excited to do that!).
- ✓ Be respectful and open-minded to others opinions.
- ✓ Primatology is a diverse topic and we will cover biology from all levels of organization (molecular to ecology).
- ✓ **Writing takes practice and patience**. Take your time and work in small increments.
- ✓ **Science is hard and creative**. It is interdisciplinary and requires a team. It is ok to feel lost or stuck, and this is why we use a collaborative learning.
- ✓ **Have fun**!

** Here is a freely available 156-page national report of data to support this:

Kuh, G. D., Kinzie, J. L., Buckley, J. A., Bridges, B. K., & Hayek, J. C. (2006). What matters to student success: A review of the literature (Vol. 8). Washington, DC: National Postsecondary Education Cooperative.

COURSE SCHEDULE: The list of topics and readings shown here is tentatively planned. Remember this is separated by both lecture and lab.

LECTURE COURSE SCHEDULE (Mondays)

Week	Date	Lecture Topic (every Monday)	"Extra" Readings	Lecture Assignments (Due Date)
1	24-Aug	What are Primates and What is Primatology?		
2	31-Aug	Taxonomic Groups and Primate Distribution		
3	7-Sep	No Lecture		*Primate Trivia Quiz*
4	14-Sep	Evolution of Primate Morphologies/Anatomy	Ankel-Simmons Collection	
5	21-Sep	Evolution of Social Behavior	Kappeler & van Schaik	
6	28-Sep	Evolution of Sex and Mating Systems	Fernandez-Duque	*Primate Fact Sheet/Brochures*
7	5-Oct	Physiology of Primate Behavior (*deep dive!*)	Mustoe	
8	**12-Oct**	**Midterm Exam**		***Midterm Exam***
9	19-Oct	Developmental Stages through the Life Span	Huber	
10	26-Oct	Primate Communication and Cognition	To be assigned	*Case Studies in Primate Cognition*
11	2-Nov	No Lecture		
12	9-Nov	Primate Community Ecology	Chapman	*Primatology in the Media Assignment*
13	16-Nov	Perspectives in Primate Conservation/Primate Welfare	To be assigned	
14	23-Nov	Conservation Presentation		*Conservation Presentation*
15	30-Nov	The Future of Primatology		
16	**7-Dec**	**Week of Final Exam**		***Final Exam***



LABORATORY COURSE SCHEDULE (Wednesdays)

Week	Date	Lab Topic	"Extra" Readings	Lab Assignments (Due Date)
1	26-Aug	The Art (and Science) of the Behavioral Observations	Altmann	
2	2-Sep	Developing Original Ethograms		*Live (webcam) Primate Project Proposal*
3	9-Sep	Primate Classification Schemes and "Field" techniques	Piel	
4	16-Sep	Primate Skulls	Ankel-Simmons Collection	*Live (webcam) Primate Project Mini Report*
5	23-Sep	Sexual Dimorphism	To be assigned.	*Morphological Phylogeny Worksheet*
6	30-Sep	Molecular Phylogenies	To be assigned.	*Dimorphism Data Project Very Mini Report*
7	7-Oct	Binocular Lab for "Primate" Follows		*Molecular Phylogeny Worksheet*
8	14-Oct	Primate Brains	NHP Brain Atlas (multiple sources)	*Primate Follow Data Project Mini Report*
9	21-Oct	Proposal Workshopping		*Brain Area Comparison Worksheet*
10	28-Oct	**Hormone Extractions (TBD)		*Final Project Proposal Due*
11	4-Nov	SNPRC Final Project		
12	11-Nov	SNPRC Final Project		
13	18-Nov	Writing/Analyses		
14	25-Nov	No Lab		
15	2-Dec	Presentations/Primate Party!		***Final Project Due (end of finals)***



AI/ChatGPT POLICY: Option 2 – Use of Generative AI Permitted with Explicit Permission: There are situations and contexts within this course where you may be asked to or benefit from the use artificial intelligence (AI) tools to explore how they can be used. **Outside of those circumstances, you should not use AI tools to generate content (text, video, audio, images) that will end up in any student work (assignments, activities, discussion responses, etc.) that is part of your evaluation in this course**. Any student work submitted using AI tools should clearly indicate with attribution what work is the student's work and what part is generated by the AI. In such cases, no more than 25% of the student work should be generated by AI. If any part of this is confusing or uncertain, students should reach out to their instructor for clarification before submitting work for grading.

Use of AI-generated content without the instructor's permission and/or proper attribution in this course qualifies as academic dishonesty and violates Texas A&M-San Antonio's standards of academic integrity.

NOTE: Guidance for how to cite AI-generators, like ChatGPT, can be found here https://apastyle.apa.org/blog/how-to-cite-chatgpt

IMPORTANT POLICIES AND RESOURCES

Academic Accommodations for Individuals with Disabilities: Texas A&M University-San Antonio is committed to providing all students with reasonable access to learning opportunities and accommodations in accordance with The Americans with Disabilities Act, as amended, and Section 504 of the Rehabilitation Act. If you experience barriers to your education due to a disability or think you may have a disability, Disability Support Services is located in the Central Academic Building, Suite 210. You can also contact us via phone at (210) 784-1335, visit us https://www.tamusa.edu/Disability-Support-Services/index.html or email us at dss@tamusa.edu. Disabilities may include, but are not limited to, attentional, learning, mental health, sensory, physical, or chronic health conditions. All students are encouraged to discuss their disability-related needs with Disability Support Services as soon as possible.

Academic Learning Center: The Academic Learning Center provides free course-based tutoring to all currently enrolled students at Texas A&M University-San Antonio. Students wishing to work with a tutor can make appointments through the Brainfuse online tutoring platform. Brainfuse can be accessed in the Tools section of Blackboard. You can contact the Academic Learning Center by emailing tutoring@tamusa.edu, calling (210) 784-1307, or visiting the Central Academic Building, room 202.

Counseling/Mental Health Resources: As a college student, there may be times when personal stressors interfere with your academic performance and negatively impact your daily functioning. If you are experiencing emotional difficulties or mental health concerns, support is available to you through the Student Counseling Center (SCC). To schedule an appointment, call 210-784-1331 or visit Madla 120.

All mental health services provided by the SCC are free and confidential (as the law allows). The Student Counseling Center provides brief individual and group therapy, crisis intervention, consultation, case management, and prevention services. For more information on SCC services visit http://tamusa.edu/studentcounseling

Crisis support is available 24/7 by calling the SCC at 210-784-1331.

Additionally, the TELUS Student Support App provides a variety of mental health resources to including support for in the moment distress, an anonymous peer-to-peer support network, mental health screenings, podcasts, and articles to improve your mental wellbeing.

Emergency Preparedness: JagE Alert is Texas A&M University-San Antonio's mass notification. In the event of an emergency, such as inclement weather, students, staff and faculty, who are registered, will have the option to receive a text message, email with instructions and updates. To register or update your information visit: https://tamusa.bbcportal.com

More information about Emergency Operations Plan and the Emergency Action Plan can be found here: https://www.tamusa.edu/about-us/emergency-management/

Download the SafeZone App (https://safezoneapp.com/) for emergencies or call (210) 784-1911. Non-Emergency (210) 784-1900.

Financial Aid and Verification of Attendance: According to the following federal regulation, 34 CFR 668.21: U.S. Department of Education (DoE) Title IV regulation, a student can only receive Title IV funds based on Title IV eligibility criteria which include class attendance. If Title IV funds are disbursed to ineligible students (including students who fail to begin attendance), the institution must return these funds to the U.S. DoE within 30 days of becoming aware that the student will not or has not begun attendance. Faculty will provide the Office of Financial Aid with an electronic notification if a student has not attended by the published Census Date (the first week of class). Any student receiving federal financial aid who does not attend prior to the published Census Date (the first week of class) will have their aid terminated and returned to the DoE. Please note that any student who stops attending at any time during the semester may also need to return a portion of their federal aid.

Writing, Language, and Digital Composing Center: The Writing, Language, and Digital Composing Center supports graduate and undergraduate students in all three colleges as well as faculty and staff. Tutors work with students to develop reading skills, prepare oral presentations, and plan, draft, and revise their written assignments. Our language tutors support students enrolled in Spanish courses and students composing in Spanish for any assignment. Our digital studio tutors support students working on digital projects such as eportfolios, class presentations, or other digital multimedia projects. Students can schedule appointments through JagWire under the Student Services tab. Click on "Writing, Language, and Digital Composing Center" to make your appointment. The Center offers face-to-face, synchronous online, and asynchronous digital appointments. More information about what services we offer, how to make an appointment, and how to access your appointment can be found on our website at https://www.tamusa.edu/academics.

Meeting Basic Needs: Any student who has difficulty affording groceries or accessing sufficient food to eat every day or who lacks a safe and stable place to live, and believes this may affect their performance in the course, is urged to submit a CARE referral (https://www.tamusa.edu/university-policies/Student-Rights-and-Responsibilities/file-a-report.html) for support. Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to direct you to available resources.

Office Hours: All faculty with teaching assignments should include regularly scheduled office hours on each syllabus in addition to "by appointment." Please review your appointment letter for the number of weekly office hours you are expected to set. Regularly scheduled office hours should also be posted outside your office door (where applicable).

Military Affairs: Veterans and active-duty military personnel are welcomed and encouraged to visit the Office of Military Affairs for any question involving federal or state VA Education Benefits. Visit the Patriots' Casa building, room 202, or to contact the Office of Military Affairs with any questions at military.va@tamusa.edu or (210)784-1397.

Religious Observances: Texas A&M University-San Antonio recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided with an opportunity to make up any examination, study, or course work requirements that may be missed due to a religious observance provided they notify their instructors before the end of the second week of classes for regular session classes.

The Six-Drop Rule: Students are subject to the requirements of Senate Bill (SB) 1231 passed by the Texas Legislature in 2007. SB 1231 limits students to a maximum of six (6) non-punitive course drops (i.e., courses a student chooses to drop) during their undergraduate careers. A non-punitive drop does not affect the student's GPA. However, course drops that exceed the maximum allowed by SB 1231 will be treated as "F" grades and will impact the student's GPA.

Statement of Harassment and Discrimination: Texas A&M University-San Antonio is committed to the fundamental principles of academic freedom, equal opportunity, and human dignity. To fulfill its multiple missions as an institution of higher learning, A&M-San Antonio encourages a climate that values and nurtures collegiality and the uniqueness of the individual on our campus and within our state, nation, and world. All decisions and actions involving students and employees are to be based on applicable law and individual merit. Texas A&M University-San Antonio, in accordance with applicable federal and state law, prohibits discrimination, including harassment, on the basis of race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation, or pregnancy/parenting status. Individuals who believe they have experienced harassment or discrimination prohibited by this statement are encouraged to contact the University's Civil Rights Officer at 210-784-2061 or titleix@tamusa.edu.

Texas A&M University-San Antonio faculty are committed to providing a safe learning environment for all students and for the university as a whole. If you have experienced any form of sex- or gender-based discrimination or harassment, including sexual assault, sexual harassment, domestic or dating violence, or stalking based on sex, know that help and support are available. A&M-San Antonio's Title IX Coordinator can support those impacted by such conduct in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, and more. The university strongly encourages all students to report any such incidents to the Title IX Coordinator. Please be aware that all A&M-San Antonio employees (other than those designated as confidential resources such as counselors and trained victim advocates) are required to report information about such discrimination and harassment to the university. This means that if you tell a faculty member about a situation of sexual harassment, sexual violence, or other related sex-based misconduct, the faculty member must share that information with the university's Title IX Coordinator (titleix@tamusa.edu, 210-784-2061, CAB 439K). If

you wish to speak to a confidential employee who does not have this reporting requirement, you can contact the Student Counseling Center at (210) 784-1331 or visit them in Madla 120.

Pregnant/Parenting Students: Texas A&M-San Antonio does not require a pregnant or parenting student, solely because of that status or issues related to that status, to (1) take a leave of absence or withdraw from their degree or certificate program; (2) limit the student's studies; (3) participate in an alternative program; (4) change the student's major, degree, or certificate program; or (5) refrain from joining or cease participating in any course, activity, or program at the University. The university will provide such reasonable modifications to pregnant students as would be provided to a student with temporary medical condition that are related to the health and safety of the student and the student's unborn child. These could include maintaining a safe distance from substances, areas, and activities known to be hazardous to pregnant individuals and their unborn child; excused absences because of illness or medical appointments; modified due dates for assignments; rescheduled tests/exams; taking a leave of absence; and being provided access to instructional materials and video recordings of lectures for excused absences, if these would be provided to any other student with an excused absence. Pregnant/parenting students are encouraged to contact the Title IX Coordinator with any questions or concerns related to their status (titleix@tamusa.edu; 210-784-2061; CAB 439K). Texas A&M-San Antonio has also designated the Title IX Coordinator as the liaison officer for current or incoming students who are the parent or guardian of a child younger than 18 years of age. The Title IX Coordinator can provide students with information regarding support services and other resources.

Young Jaguars: can support parenting students with daycare who meet this criteria: Must be enrolled in classes at TAMUSA in the current semester. Must be Pell eligible or a single parent. They serve children ages 3 to 12-years-old. Children must be enrolled in Pre-K-3 through 6th grade.
youngjaguars@tamusa.edu (210) 784-2636

Students' Rights and Responsibilities: The following statement of students' rights and responsibilities is intended to reflect the philosophical base upon which University Student Rules are built. This philosophy acknowledges the existence of both rights and responsibilities, which is inherent to an individual not only as a student at Texas A&M University-San Antonio but also as a citizen of this country.

Students' Rights

1. A student shall have the right to participate in a free exchange of ideas, and there shall be no University rule or administrative rule that in any way abridges the rights of freedom of speech, expression, petition and peaceful assembly as set forth in the U.S. Constitution.

2. Each student shall have the right to participate in all areas and activities of the University, free from any form of discrimination, including harassment, on the basis of race, color, national or ethnic origin, religion, sex, disability, age, sexual orientation, gender identity, gender expression, and pregnancy/parenting or veteran status in accordance with applicable federal and state laws.

3. A student has the right to personal privacy except as otherwise provided by law, and this will be observed by students and University authorities alike.

4. Each student subject to disciplinary action arising from violations of university students' rules shall be assured a fundamentally fair process.

Students' Responsibilities

1. A student has the responsibility to respect the rights and property of others, including other students, the faculty, and administration.

2. A student has the responsibility to be fully acquainted with the published University Student Rules found in the Student Handbook, Student Code of Conduct, on our website, and University Catalog, and to comply with them, as well as with federal, state, and local laws.

3. A student has the responsibility to recognize that student actions reflect upon the individuals involved and upon the entire University community.

4. A student has the responsibility to recognize the University's obligation to provide a safe environment for learning.

5. A student has the responsibility to check their university email for any updates or official university notifications.

We expect that students will behave in a manner that is dignified, respectful, and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation, or disability. Conduct that infringes on the rights of another individual will not be tolerated.

Students are expected to exhibit a high level of honesty and integrity in their pursuit of higher education. Students engaging in an act that violates the standards of academic integrity will find themselves facing academic and/or disciplinary sanctions. Academic misconduct is any act, or attempt, which gives an unfair advantage to the student. Additionally, any behavior specifically prohibited by a faculty member in the course syllabus or class discussion may be considered as academic misconduct. For more information on academic misconduct policies and procedures please review the Student Code of Conduct (https://www.tamusa.edu/university-policies/student-rights-and-responsibilities/documents/Student-Handbook-2022-23.pdf) or visit the resources available in the OSRR website (https://www.tamusa.edu/university-policies/student-rights-and-responsibilities/academic-integrity.html).

