

BIOL 3317_001 Ecology Lecture
Biology Program
Department of Natural Sciences

Instructor Information

Instructor: Danielle Rios, MSc.

Office: Central Academic Building 354

E-mail: drrios@tamusa.edu

Office hours: Have questions? Come see me!

My office hours are dedicated time for you to stop by with questions about the course, assignments, grades, or anything you need help understanding. You don't need an appointment during the following times:

Day	When I'm Available
Monday	3:30 - 4:30PM
Tuesday	9:00 - 10:30AM
Wednesday	9:00 - 10:30AM
Other times	By appointment, online or in person

Class Meeting Times & Location

Meeting Times: Face to Face, MWF from 2:00pm-2:50pm

Location: SciTech building, room 173

Course Description

This course provides the foundations of the scientific study of organisms and their environment. Basic components involved in the function and evolution of ecosystems, different ecological models, and the mechanisms that drive ecosystem changes through time will be addressed. Students will learn to approach the study of ecology from the organismal to global scale. The course will incorporate the classic concepts of ecology and will introduce the students into current theoretical and applied fields of ecology.

Course Objectives

1. Develop an appreciation of the past and modern scope of scientific inquiry in Ecology through lectures and assignments.
2. Understand the mechanisms behind the interaction between organisms (from bacteria to plants and animals) and their environment.

3. Understand how scientists conduct studies in ecology, including techniques, methods, and equipment used to address different ecological questions.
4. Learn about the many theoretical and applied aspects of ecology globally, and in Southern Texas, particularly Bexar County.
5. Understand the importance of ecology as a tool to study current environmental issues.
6. Understand the effects of ecological processes on our lives and all living systems.

Recommended Resources

Ecology 6th Edition by Bowman & Hacker ISBN: 9780197614044
E-book ISBN: 9780197614082 (Reflowable Layout)

Ecology 5th Edition by Bowman & Hacker ISBN:
9781605359212
eText ISBN: 9781605359236, 1605359238

Ecology 4th Edition by Bowman. Hacker & Cain ISBN 978-1-60535-618-1

Course Policies

Attendance: You are required to attend **every class**.

Participation: I expect that you will review the course material for the week and review material from previous lectures, so you come to class ready with questions.

Communication: All communication and inquiries to the instructor should be via e-mail: drios@tamusa.edu. This e-mail is for communication only. I will not accept assignments via e-mail unless I have granted accommodation. Please **submit all assignments through Blackboard or in class as required by the instructor**.

Course Changes: This course syllabus and lecture schedule are subject to change at any time; however, I will notify any changes through announcements in Blackboard or during lectures.

Makeup Exams: Makeup Exams are granted at the instructor's discretion. Make-up exams require you to communicate your absence in written form, or no later than 24 hours after your absence. I prefer an acceptable doctor's note or excuse.

Late assignment submission: I will deduct 10% of the assignment's possible points for each day after the due date.

Course Evaluation

Exams: The Exam format will include multiple-choice, true/false questions, and short answer/essay questions.

- Exams are closed book, and most questions will come from or be like quiz questions.
- The Exam may include figures, tables, diagrams, or articles that will be provided on

the day of the Exam.

- Each exam will include the material covered during the lecture before the day of the Exam.
- Once you start, you have 50 minutes to complete your Exam.

Quizzes: Quizzes will be available weekly, except on Exam week.

- Regular quizzes will be available via Blackboard and completed outside of lecture time. You will be given 5 days to complete the quiz and submit it. I will post quizzes on Fridays, and the due date will be on Wednesdays by 11:59pm.
- You can take your quiz three times, and the highest quiz score will go in your grade book.
- You will answer one question at a time, and no backtracking will be possible. The number of questions may range from 5-10.
- The length of the quiz may range from five to 10 minutes.

Assignments: This may include a scientific article summary and critiques, **or** in-class activities

- Please read the instructions provided when writing the article summary and critique.
- Depending on the assignment, the submission may be during or after the lecture.
- I may provide an assignment that will be submitted on the same day. I may provide group or individual assignments.
- You cannot make up for in-class assignments if you miss class.

Extra credit: To earn Extra credit, you may search for and submit a news article or participate in an activity related to Ecology outside of lecture time.

- **Ecology News articles (5 pts):** I will provide instructions for you to submit a news article in a folder titled Ecology News. You need to briefly describe why you chose the article and what the article is about, as well as a web link or PDF file. The article you select should be on a topic in Ecology covered during the weeks before the due date. You only need to post once to earn 1 point. Five Ecology News folders will become available during a specific period. Once the period ends, you may not submit to that folder.
- **Ecology activities (5-10pts):** You may earn extra credit for every hour you participate in the activities listed below. To earn the credit, you will post a one-page summary of the activity in the folder titled Ecology activities:
 - Attending volunteering and community service events related to ecology
 - Conducting undergraduate research or helping undergraduate researchers
 - Attending a Biology Seminar or Guest Speaker presentation
 - Visiting a Park or Natural Area
 -

Grading Scheme

Assessment	No.	Cumulative Points
Exams	3 exams(100 pts each)	300
Final Cumulative Exam	1 (100 pts)	100
Quizzes	11 (10 pts each); lowest grade dropped	100
In Class Assignments	6 (10 pts each)	60
Total		560

A = 90 – 100 points

B = 80 – 89.9 points

C = 70 – 79.9 points

D = 60 – 69.9 points

F = <59.9 points

Class Schedule:

All Exams will be given face-to-face during class time on the dates indicated below. Homework, quizzes, discussions, and other assignments will be *due Sundays by midnight* through Blackboard on the date indicated below. This is a tentative schedule and is subject to change. Any changes will be communicated verbally, through Blackboard, and by email in a timely manner.

Week of:	Monday	Wednesday	Friday	Quizzes/ Assignments
8/24	First Class Day: Syllabus Overview	Introduction to Ecology/Applications of Ecology	Physical Environment 1	No Class (Labor Day)
9/31	Physical Environment 2	Physical Environment 2	Biosphere and Environment 1	Quiz 1
9/7	No Class (Labor Day)	Biosphere and Environment 2	Energy Flow and Heterotrophs 1	Quiz 2
9/14	Exam 1 (9/14)	Energy Flow and Autotrophs 2	Energy Flow and Autotrophs 3	Quiz 3
9/21	Production and Decomposition 1	Production and Decomposition 2	Biogeochemistry & Nutrient Cycling 1	Quiz 4
9/28	Biogeochemistry & Nutrient Cycling 2	Evolution 1	Evolution 2	Quiz 5
10/5	Life History 1	Life History 2	Population Distribution	Quiz 6
10/12	Exam 2 (10/12)	Population growth	Population dynamics	
10/19	Competition 1	Competition 2	Predator-Prey models	Quiz 7
10/26	Predator-Prey herbivore-plant adaptations	Parasitism	Mutualism and Commensalism	Quiz 8
11/2	Nature of Communities 1	Nature of Communities 2	Change in communities	Quiz 9
11/9	Exam 3 (11/9)	Relevance of Species Diversity	Relevance of Species Diversity	Quiz 10
11/16	Biogeography 1	Biogeography 2	Conservation biology 1	Quiz 11

Week of:	Monday	Wednesday	Friday	Quizzes/ Assignments
11/23	Ecology Study Day- No Class	Nov.25 (Study Day) - No Classes	Thanksgiving Holiday – No Classes/ University Closed	
11/30	Conservation biology 2	Landscape and ecology	Ecosystem management	
Final Exam schedule will be announced in Blackboard once available. Check university website as well.				

IMPORTANT POLICIES AND RESOURCES

University Email Policy and Course Communications: All correspondence between professors and students must occur via university email accounts. You must have your Jaguar email account ready and working. If it is not working, contact the help desk at helpdesk@tamusa.edu or at 210-784-HELP (4357). If you don't hear back within 48 hours, contact them again. They have many requests during the first part of the semester, so you may need to follow up with them.

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 at the [website](#) or email us at dss@tamusa.edu. All students are encouraged to discuss their academic accommodation with Disability Support Services and their instructors as soon as possible.

Academic Learning Center: All currently enrolled students at Texas A&M University-San Antonio can utilize the Academic Learning Center for subject-area tutoring. 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. Online tutoring is also available for after hours and weekend assistance.

While tutoring hours may change based on tutor schedules and availability, the current tutoring hours for MATH in the ALC are as follows:

Appointments available MATH Walk in Tutoring – No appointment needed

	Appointments available	Walk in Tutoring – No appointment needed
MONDAY	8 am – 6 pm	9 am – 5 pm
TUESDAY	8 am – 6 pm	9 am – 5 pm
WEDNESDAY	8 am – 6 pm	9 am – 5 pm
THURSDAY	8 am – 6 pm	9 am – 5 pm
FRIDAY	8 am – 5 pm	11 am – 4 pm

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, visit our website, call 210-784-1331 or visit Madla 120 between the hours of 8:00 AM and 5:00 PM.

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. *Crisis support is available 24/7/365 by calling the SCC at 210-784-1331 or through the TELUS student support App.*

The TELUS Student Support App provides a variety of mental health resources to including 24/7/365 support for in the moment distress, crisis support, 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 system. 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 on emergency response may be found at: [Emergency Operations Plan](#) and the [Emergency Action Plan](#). 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.

Jaguar Writing, Language, and Digital Composing Center (WLDCC): The WLDCC provides support to graduate and undergraduate students in all three colleges as well as faculty and staff. Writing 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. The WLDCC offers face-to-face, synchronous online, and asynchronous digital appointments. Students can schedule appointments with the WLDCC in JagWire under the Student Services tab. Click on “Writing, Language, and Digital Composing Center” to make your appointment. Students wanting to work in realtime with a tutor can schedule an “Online Appointment.” Students wishing to receive asynchronous, written feedback from a tutor can schedule an “eTutoring” appointment. More information about what services we offer, how to make an appointment, and how to access your appointment can be found on our [website](#) . The WLDCC can also be reached by emailing wldcc@tamusa.edu.

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 report](#) for support. Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to direct you to available resources. A food pantry is available on campus; click [here](#) for hours and contact information.

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 wide variety 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 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 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 accommodations to pregnant students as would be provided to a student with a 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 if students meet this criteria: (1) must be enrolled in classes at Texas A&M-San Antonio in the current semester, (2) must be Pell eligible or a single parent, (3) child(ren) must be aged 3 to 12-years-old, and (4) child(ren) must be enrolled in Pre-K-3 through 6th grade. Hours of operation is Monday-Thursday 3:30pm-9:00pm. For more information, please contact Young Jaguars at youngjaguars@tamusa.edu or call (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, 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 student 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, 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](#) or visit the resources available in the [OSRR website](#)

Important Fall 2026 Dates:

Dates	Event
August 20	Tuition & Fee Payments deadline
August 24	First day of class
September 7	Labor Day Holiday – No Classes / University Closed

Dates	Event
September 9	Census Date – Students not paid in full or enrolled in a payment plan by 4:59 pm may be dropped for non-payment
October 5 – October 16	Midterm grading period
November 13	Last day to drop with an automatic “W”
November 25	Study Day – No classes
November 26-November 28	Thanksgiving Holiday – No Classes / University Closed
November 30	Last day to drop a course or withdraw from the University
December 4	Last day of classes
December 5 – December 11	Final exams
December 15	Commencement

The complete [academic calendar](#) is available online

Use of Generative AI Permitted Under Some Circumstances or With Explicit Permission

There are situations and contexts within this course where you may be asked to 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.