

**Invertebrates (lecture and lab) BIOL 3401**  
**4 credits**  
**Texas A&M University San Antonio, Biology Program**  
**Spring 2025 Syllabus**

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**Contact Information**

**Instructor:** Ashley Aguilar, M.Sc.

**Office:** STEM 311- My desk is right in front of office 311F

**E-mail:** [aaguilar2@tamusa.edu](mailto:aaguilar2@tamusa.edu)

**Preferred Contact Method:** E-mail: [aaguilar2@tamusa.edu](mailto:aaguilar2@tamusa.edu)

**Do not use “blackboard messenger”**

**Office Hours:** Tuesdays & Thursdays 11:30AM – 1:30PM; before/after class; by appointment; feel free to email me!

**Meeting Times and Location(s):**

**Lectures MWF – 9:00-9:50**

**Location- CAB 223**

**Laboratory** – you must be enrolled in one of the two laboratory sections with TA Sarah Palmeri (email: [spalmeri@jaguar.tamu.edu](mailto:spalmeri@jaguar.tamu.edu))

- Section 01L Thursdays 11:00-1:45 PM
- Section 02L Thursdays 2:00- 4:45 PM

**Textbook for Lectures:**

The textbook is NOT MANDATORY. However, if you would like to use it to follow along, you can get:

**Invertebrates 4<sup>th</sup> Edition**

by [Brusca, Richard C.](#); [Giribet, Gonzalo](#); [Moore, Wendy](#)

This one is okay too – which ever is cheaper. Brusca and Brusca. 2016. Invertebrates 3rd Edition. Sinauer Press.

**Textbook for Lab:**

None – you will receive posted labs on the LECTURE blackboard page.

**Other Required Materials:**

- **Lap top or desk top computer**
  - Lectures will be posted on Blackboard prior to the scheduled lecture
  - Announcements regarding lectures, labs, assignments, quizzes, and grading will be posted on Blackboard
  - Grades for individual assignments/labs etc... will be posted on Blackboard as we go along.

- I would **highly suggest** finding a way to take notes directly on the powerpoint documents while I am lecturing. Either take notes directly on a print-out, a tablet with a stylus, or any other electronic tool. Being able to draw arrows, or circle words, and take notes in the margins of the actual slide will help you link your notes directly to the slide I used to lecture.

### **Catalog Description and Prerequisites:**

#### **3401. Invertebrate Zoology. 4(3-3)**

Classification, anatomy, life history and evolution of invertebrates exclusive of insects. Prerequisite: BIOL 1307 or BIOL 1309.

#### **Learning objectives**

Students will learn how to use comparative biology to investigate the various body plans (*bauplan*) and ways in which invertebrates carry out life functions. Through the use of comparative biology, students will also become aware of patterns in living systems that are a result of evolutionary processes and will understand the basic systematics (taxonomy) of the invertebrates.

### **COURSE CONTENT**

#### **LECTURE 75% of your total course grade**

##### **8 Weekly Quizzes – (15 points each)**

- Quizzes will start at 9:00am sharp and will be collected at 9:15am.
- Quizzes are meant to keep you engaged with the subject matter in between exams.
- Quizzes are designed to mimic the types of questions you will see on the exams so that you are prepared for what you will see.

##### **4 Regular Exams – (100 points each)**

- Each exam will be approximately ½ multiple choice and ½ essay/short answer.
- Exams will technically cover material presented since the previous exam but concepts will continue to build upon each other, so it is expected that you retain the information presented in the previous exam.
  - For example: Let's say the last exam you had to learn about sponges and for this exam you learned about new groups of organisms such as jellyfish. You may be asked to compare a jellyfish to a sponge.
- Exams **will not be scaled**; however you will be informed of the class average on that exam and thus it will give you an idea of your standing in the class (see scaling policy on FINAL GRADES below).
- If you feel that your exam was graded unfairly or incorrectly, I would be happy to discuss it with you during my office hours or by appointment.

##### **In-class activities – (10-15 points each)**

- These will be varied and will not necessarily be on the schedule
- These may take the form of
  - Break-out groups
  - Short writing assignments (to be completed during the class)
  - Short presentations
  - Or good old-fashioned worksheets
- These cannot be made up as attendance is required in order to participate

## **LABORATORY – 25% of your total course grade**

Please see the syllabus provided to you by your laboratory instructor.

### **POLICIES:**

#### **Grading**

You will receive a single letter grade for this course. Lecture material is worth 75% of your grade and Lab material is worth 25% of your grade. The percent you earn in the lecture will be multiplied by 0.75 and percent you earn in the lab will be multiplied by 0.25. These will then be added together for your final percentage.

A = 90-100%.....I will *consider* scaling up if you earn an 89.7%, but I will **NOT** scale up for an 89.49% or less

B = 80-89%..... I will *consider* scaling up if you earn an 79.7%, but I will **NOT** scale up for an 79.49% or less

C = 70-79%..... I will *consider* scaling up if you earn an 69.7%, but I will **NOT** scale up for an 69.49% or less

D = 60-69%..... I will *consider* scaling up if you earn an 59.7%, but I will **NOT** scale up for an 59.49% or less

F = below 60%

**If the class average at the end of the semester is less than 70%, I will institute a course scale.** Therefore, I will not be scaling exams or assignments during the course of the semester.

**Lecture Attendance:** Although no points will be assessed for attendance in lecture, attendance will be taken daily and may be used at the end of the semester as an additional evaluation of your performance (i.e. if your grade is borderline and you have attended class regularly, I will be more inclined to bump you up to the next grade).

If you must miss a class, you are responsible for obtaining what you missed (assignments, class notes, handouts, etc...) from a fellow classmate, not me.

#### **Make-up Policies:**

- Attendance at lecture exam days is required.
- You may make up an exam or lecture quiz if 1) If your absence is one approved by TAMUSA policies (illness, death in the family, other family emergencies). Documentation will be required **and** 2) If you contact me within **one** day of the scheduled exam or quiz.
- Due dates on assigned work will be strictly enforced. Any work turned in late will lose 5 points per day that it is late – no exceptions.
- You may not make-up any **in-class** activities as they require your presence.

## TENTATIVE SCHEDULE

WEEK	DATES	Important Dates	Lecture Topics
1	1/20- 1/24	No school Monday 1/20	Introduction to Invertebrates Systematics, Phylogenies, and Classification Protists (in 3 <sup>rd</sup> edition of book only) Body Architecture, Devel, Life history
2	1/27- 1/31	Quiz 1 Wed. 1/29	
3	2/3- 2/7	Quiz 2 Wed. 2/5	
4	2/10- 2/14	Quiz 3 Wed. 2/12	
<b>EXAM 1 Friday 2/14</b>			
5	2/17- 2/21	Quiz 4 Fri. 2/21	Phylum Porifera Phylum Cnidaria Phylum Ctenophora Phylum Platyhelminthes
6	2/24- 2/28	Quiz 5 Fri. 2/28	
7	3/3- 3/7	Quiz 6 Fri. 3/7	
<b>EXAM 2 Monday 3/17</b>			
8	3/10-3/14	SPRING BREAK NO CLASSES	Phylum Mollusca Phylum Annelida Phylum Gastrotricha Phylum Rotifera, including Acanthocephala Phylum Nematoda & Nematomorpha
9	3/17 – 3/21	Quiz 7 Wed. 3/19	
10	3/24 – 3/28	<b>NO CLASS MEETING: RECORDED LECTURE ON BB FOR MON. 3/24</b>	
11	3/31 – 4/4	Quiz 8 Wed. 4/2	
12	4/7 – 4/11		
<b>EXAM 3 Friday 4/11</b>			
13	4/14 – 4/18	Study day Fri. 4/18- No Classes	Phylum Arthropoda -Subphylum Chelicerata -Subphylum Crustacea -Subphylum Hexapoda Phylum Hemichordata Phylum Chordata Phylum Echinodermata
14	4/21 – 4/25	Quiz 9 Fri.4/25	
15	4/28- 5/2	Quiz 10 Fri. 5/2	
16	5/5	Last day of classes Mon. 5/5 Study day Tues. 5/6 Finals 5/7-5/13	
<b>EXAM 4 Monday 5/5</b>			

### Important Dates:

January 20	MLK, Jr. Day Holiday- No classes
January 21	First day of class
March 10- 15	Spring Break – No classes
April 21	Last day to drop with an automatic “W”
April 28	Last day to drop a course or withdraw from the University
April 18	Study Day – No classes
May 5	Last day of classes
May 6	Study Day – No classes
May 7-13	Final exams

The complete academic calendar is available online: <https://www.tamusa.edu/academics/academic-calendar/index.html>



TEXAS A&M UNIVERSITY  
SAN ANTONIO

## 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](mailto: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 and their instructors as soon as possible.

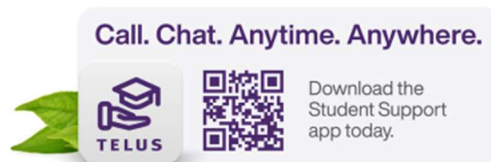
**Academic Learning Center:** The Academic Learning Center provides free course-based tutoring to all currently enrolled students at Texas A&M University-San Antonio. Students wishing to work with a tutor can make appointments through the Brainfuse online tutoring platform. Brainfuse can be accessed in the *Tools* section of Blackboard. You can contact the Academic Learning Center by emailing [tutoring@tamusa.edu](mailto: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 [tamusa.edu/studentcounseling](http://tamusa.edu/studentcounseling)

*Crisis support is available 24/7 by calling the SCC at 210-784-1331 (after-hours select option '2').*

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. Any student receiving federal financial aid who does not attend by the census date will have their financial aid terminated and returned to the DoE. Please note that any student who stops attending at any time during the semester, a Care report will be submitted, and you will possibly be dropped from the class. Your financial aid may have to be recalculated and a portion of your federal aid may have to be returned to the DoE.

**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.

**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](mailto: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 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 within our state, nation, and world. All decisions and actions involving students and employees should 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, gender identity, gender expression, or pregnancy/parenting status. Individuals who believe they have experienced harassment or discrimination prohibited by this statement are encouraged to contact the appropriate offices within their respective units. 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, 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 misconduct, the faculty member must share that information with the university's Title IX Coordinator ([titleix@tamusa.edu](mailto: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](mailto: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.

**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 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, 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>).

### **Artificial Intelligence Policy for BIOL 3401 Invertebrate Zoology**

Use of artificial intelligence (AI) tools is permitted in this course for students who wish to use them. To adhere to our scholarly values, students must cite any AI-generated material that informed their work (this included in-text citations and/or use of quotations, and in your reference list). Using AI tool to generate content without proper attribution qualifies as academic dishonestly and violates Texas A&M-San Antonio's standards of academic dishonesty.

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