

Animal Nutrition
BIOL 3303 - 3 credits
Texas A&M University San Antonio, College of Arts and Sciences
Spring 2025 Syllabus

Ms. Marie Tipps

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e-mail: tmtipps@tamusa.edu (BEST way to contact me)

Walk-in Office hours: Monday/Friday 1:00-3:00 p.m.; Tuesday/Thursday 11:30-1:30

We can also schedule an online or in-person meeting as needed.

Class Meeting Times and Location(s):

Asynchronous Online – No required meeting times but there will be some *Optional* in-person field trips/speakers. Plenty of notification will be given for these occasions.

Textbooks for Lecture

These are mainly for reference purposes. I will do my best to update the chapter list for each book when we move to new units. For the most part – the topics are the same with different names

Animal Nutrition – McDonald et al. – 7th edition

Comparative Animal Nutrition & Metabolism – Cheeke and Dierenfeld

PDF of these textbooks will be provided on Blackboard. Additional reading materials and resources will also be made available on Blackboard.

Other Required Materials:

- **Blackboard – this is where you will go for lectures, grades, and weekly announcements**
 - Power-point versions of lectures will be posted on Blackboard
 - Announcements regarding lectures or labs may be posted on Blackboard
 - Grades for individual assignments/labs etc... will be posted on Blackboard as we go along.

Catalog Description and Prerequisites:

Course Description: This course provides a fundamental knowledge in animal nutrition required by students pursuing a veterinary, animal science or zootechnics degree after their biology bachelors. In this course, we will review basic concepts in nutrition such as the role of animal nutrition in animal health and human society, common methods of analysis for nutrients and feedstuff, the gastrointestinal tract, and measurements of feed and nutrient utilization. We will then review concepts of nutrient metabolism such as water, biomolecules, energy, macro/micro nutrients, and vitamins. The last portion of the course will focus on nutrition and feeding of different animal groups.

Learning Outcomes:

1. Develop a basic vocabulary of terms and concepts needed to understand animal nutrition.
2. Understand the links between animal health and human health based on best practices in animal nutrition and diet selection.
3. Understand how different animals ingest, digest, and incorporate the absorbed product into their metabolisms and body tissues.
4. Compare different gastrointestinal systems and metabolic requirements among animal groups.
5. Learn about toxicity, illnesses or consequences of poor animal nutrition.

Course Content

4 Regular Exams – 100 pts. each – 55%

- Exams or projects will cover topics based on material from each unit.
- Exams will have 35-50 questions ranging from multiple choice, short answer, true/false, drawing, matching, fill-in-the-blank, etc. Not all types of questions will be on every exam.
- 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).
- Once exams are open, you will have 72 hours to complete the exam. Once you start the exam, you will have to complete it in the same sitting. You will have 1.5 hours to complete the exam once the timer has started.
- If you feel that your exam was graded incorrectly, I would be happy to discuss it with you **within 1 week of taking the exam**.

Quizzes – 15%

- Quizzes will be available to you online for 48 hours. Once quizzes are open, you will have to complete the quiz in one sitting. That is, once the timer starts, you must complete the quiz.
- While these are timed, they are open-note quizzes.
Lowest quiz grade will be dropped.

Activities/Assignments – 30%

- There will be various assignments throughout the semester that will help demonstrate concepts, practice word problems, and reinforce concepts presented in recorded lectures.
- These assignments should help assess where you are in terms of the concepts being taught. If you struggle with these activities, this should help identify where you need to focus your studying or where you need to ask for more help.

In college, it is expected that for every credit hour you spend in class, you spend 3 hours working on that material at home. This of course takes time-management skills. Please take this into consideration when planning your semester activities.

PARTICIPATION POLICY:

Participation: Attendance/Interaction with the Blackboard course will be required as this is an online asynchronous course. Blackboard does register how often you interact with a course and specific assignments. Several assignments will require you to interact with other students – this may include peer reviews, discussion boards, group projects, etc. You are expected to participate in all of these activities, thus participation will be included in the final grade for that particular assignment. If you do not participate, you will lose those points for your assignment grade.

MAKE UP POLICIES:

Activities/Assignments: Because these are on-line and because they will be open and available for more than one day, you should have ample opportunity to complete these. **Thus – there are no make-ups.** If there is an emergency that is considered a university-excused reason that prevents you from taking a quiz or completing an assignment in the allotted timeframe, you must contact me **within one day of the due date**. If I do not hear from you within that time period, you have forfeited the right to make up the assignment or quiz.

Quizzes & Exams:

- You may make up a quiz or an exam only if:
 - you contact me within **one** day (24 hours) of the scheduled exam
 - your absence is one approved by TAMUSA policies (illness, death in the family, other immediate-family emergencies). Documentation will be required.
 - **Again – if I do not hear from you within 24 hours of the scheduled exam, you have forfeited the right to make up the exam.**

Grading

EXAMS= 55% of your grade (take total points earned / total points available X 0.55) = A

QUIZZES =15% of your grade (take total points earned / total points available X 0.15) = B

ACTIVITIES/ASSIGNMENTS = 30% of your grade (take total points earned / total points available X 0.30) = C

(A + B + C) x 100 = FINAL COURSE PERCENTAGE

Final Grade:

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%

Email Etiquette

Professional email etiquette is a requirement when communicating with me (or anyone) online. A proper greeting (e.g. Professor, Mrs. Tipps, Marie, Professor Tipps, Hello Mrs. Tipps, etc.) with a coherent message and the name of the course AND section number in the subject line.

For example:

To: tmtipps@tamusa.edu

Subject: Question about Gen. Biol. Class

Ms. Tipps,

My name is “your name here” and I was wondering what format the midterm will be in.

Best, “your name here”

Emails that do not satisfy these conditions will be ignored. * Please do not write emails as you would text or include the entire email body in the subject heading, and please be respectful to all.

Please allow 24 hours for a response during the regular week and 72 hours for a response over the weekend. I will not regularly be answering e-mails sent after 6:00 p.m. so please plan accordingly.

I will be checking Blackboard messages. HOWEVER, if you have sent me an important message that I have not responded to in a timely manner, please send me an email as I sometimes overlook messages.

IMPORTANT POLICIES AND RESOURCES

Academic Accommodations for Persons 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, please contact Disability Support Services in the Central Academic Building, Suite 210, or at (210) 784-1335 or visit <https://www.tamusa.edu/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 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, 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

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. Faculty will provide the Office of Financial Aid with an electronic notification if a student has not attended the first week of class. Any student receiving federal financial aid who does not attend 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.

Military Affairs: Veterans and active-duty military personnel are welcomed and encouraged to communicate, in advance if possible, and special circumstances (e.g., upcoming deployment, drill requirements, disability accommodations). You

are also encouraged to visit the Patriots' Casa in-person 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 an opportunity to make up any examination, study, or 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, equality of 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 or sexual violence, or other related 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 reasonable accommodations to pregnant students that would be provided to a student with a temporary medical condition and 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.

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, 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, University Catalog and to comply with them, as well as 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 an environment for learning.
5. A student has the responsibility to check their university email for any updates or official university notification.

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. Behaviors that infringe 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](#).

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.

Important Dates:

January 21	MLK Jr. Day – No classes
January 22	First Day of Classes
February 5	Census Day
Feb. 24-March 7	Midterm grading period
March 10-15	Spring Break – No classes
April 18	Study Day – No classes
April 21	Last day to drop with an automatic “W”
April 28	Last day to withdraw from the university
May 5	Last day of scheduled weekday classes
May 6	Study Day – No classes
May 7-13	Final Exams
May 20	Commencement

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

TENTATIVE SCHEDULE – Subject to Change with notification

Week	Date	TOPICS	Test/Quiz Due Dates *Note all due dates are <u>11:59PM</u>
1	1/20	Concepts of Nutrition Role of Animal Nutrition in Society	
2	1/27	Common Methods of Analysis GI Tract & Nutrition	Quiz 1
3	2/3	Msmnt. of Feed & Nutrient Utilization Water	Quiz 2
4	2/10	Carbohydrates Lipids	Exam 1
5	2/17	Proteins & Amino Acids Energy Metabolism	Quiz 3
6	2/24	Macronutrients Micronutrients	Quiz 4
7	3/3	Mineral & Organic Toxicities Regulation of Nutrient Partitioning	Exam 2
8	3/10	SPRING BREAK	Quiz 5
9	3/17	Fat-soluble vitamins Water-soluble vitamins	Quiz 6
10	3/24	Factors affecting feeding consumption Feeding standards and productivity	Quiz 7
11	3/31	Feedstuffs Feed preparation and processing	Quiz 8
12	4/7	Diet formulation Beef cattle	Exam 3
13	4/14	Dairy cattle Sheep and goats	Quiz 9
14	4/21	Swine Poultry	Quiz 10
15	4/28	Horses Dogs & Cats	Quiz 11
16	5/5	Fish Zoo Animals	Exam 4 (Final – NOT COMPREHENSIVE)