Texas A&M University-San Antonio
Department of Sciences & Mathematics
MATH 2313 Sec. 006, Fall 2025
Syllabus

Instructor: Ali Manesh
Email: amane02@tamusa.edu
Class Time: Monday & Wednesday 2:00 PM - 3:15 PM
Location: Classroom Hall 205
Office: Classroom Hall 336
Office Hours: Monday, Wednesday, & Friday 12:15 PM-1:45 PM, Tuesday, & Thursday 1:30 PM-3:00 PM

Catalog Description. The course encompasses the study of limits, continuity, and derivatives of algebraic, trigonometric, and transcendental functions and related applications to include maximizing or minimizing a function and rate of change problems. The course also introduces the definite integral, the Fundamental Theorem of Calculus, and application to calculation of areas. Curve sketching and graphing tools will be utilized in exploring these concepts. Math 2113 and Math 2313 help students develop Critical Thinking, Communication, and Empirical and Quantitative Skills by focusing on the student's understanding of calculus concepts to include recognizing, identifying, solving, analyzing and explaining, and appropriately modeling applicable real-world situations.

Prerequisites. Math 2312 Pre-Calculus with a grade of "C" or higher, or equivalent, or permission of the department.

Required Material. WebAssign for Stewart's Essential Calculus: Early Transcendentals, 2nd Edition (ISBN:9781337772198). Included in student fees. No purchase necessary.

Attendance Policy. Attending class is mandatory. In all cases of absence, tardiness, or leaving early, students will be held responsible for the completion of course requirements covered in their absence. Students are expected to attend class as scheduled and be prepared to participate in discussions and in-class exercises. If you miss class, you are responsible for finding out what you missed on that day. You are welcome to ask questions about the topics that you missed; however, it is your responsibility to learn the material. You are strongly encouraged to attend all classes. In addition, if an unavoidable situation prevents you from being on time or if you must leave early, please minimize class interruption. After 6 absences, your instructor can drop you for non-attendance without further notice.

Calculator Policy. Scientific and graphing calculators are permitted. A **TI-83 or TI-84** is recommended. Note that you **CANNOT** use **TI-Nspire** or more advanced calculators. Some topics may be covered with the assistance of a graphing calculator. Online math utilities (e.g., Desmos) are not allowed on exams. Note: Laptops, cell phones, and other mobile devices are **NOT** acceptable calculators.

Homework. All homework assignments will be assigned weekly and completed through Cengage's Webassign. You may access Webassign via Blackboard.

Quizzes. Quizzes will be given during the class. You may complete the quizzes at home. Group work is encouraged; however, each student must submit their own quiz to receive credit. The due dates for the quizzes will be announced each time a quiz is given to you.

Examination. There will be 3 exams and a final exam. All exams will be conducted in person and administered in class. Unless in extreme circumstances, there will be **no make-up** for exams. Please, make sure to coordinate with the instructor **at least 24 hours prior** to the scheduled date and time of the exam.

Late Work. Late homework submissions will not be accepted. The workload distribution would be such that sufficient time would be allowed for completion of each assignment.

Grading Criteria. Final grade breakdown will be as follows:

Exam I	15%
Exam II	15%
Exam III	15%
Homework	25%
Final Exam	30%
Total	100%

Grading Scale. Final grades will be assigned according to the following scale:

A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	0-59%

Class Policy. All electronics should be used for **CLASS PURPOSES** only. If you are using electronics to do independent activities (i.e. watching shows, listening to music, doing other homework etc.) you will be asked to put it aside, and if this continues you will be asked to leave the classroom.

Student Learning Outcomes. MATH 2313 helps students develop critical thinking, communication, and empirical and quantitative skills by focusing on student understanding of key mathematical concepts required for calculus readiness to include recognizing, identifying, solving, analyzing, explaining, and appropriately modeling applicable real-world situations. Upon completion of this course, students will:

1. Develop solutions for tangent and area problems using the concepts of limits, derivatives, and integrals.
2. Interpret and draw graphs of algebraic and transcendental functions considering limits, continuity, and differentiability at a point. algebraic, transcendental, and trigonometric functions.
3. Determine and explain whether a function is continuous and/or differentiable at a point using limits.
4. Apply differentiation rules to differentiate algebraic and transcendental functions.
5. Identify and apply appropriate calculus concepts and techniques to provide mathematical models of real-world situations, and to determine and explain solutions to applied problems.
6. Evaluate definite integrals using the Fundamental Theorem of Calculus.
7. Recognize and articulate the relationship between derivatives and integrals using the Fundamental Theorem of Calculus.

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 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 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	**Walk in Tutoring**
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, 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) and are not part of a student's academic or university record. 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'). The National Suicide Prevention hotline also offers a 24/7/365 hotline at 1-800-273-8255.
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 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 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.

Jaguar Writing, Language, and Digital Composing Center (WLDCC). The Jaguar Writing Center provides writing support to graduate and undergraduate students in all three colleges. Writing tutors work with students to develop reading skills, prepare oral presentations, and plan, draft, and revise their written assignments. The Writing Center has both online and in person appointments. Students can schedule appointments with the Writing Center in JagWire under the student services tab. 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 at https://www.tamusa.edu/student-resources/writing-center/index.html. The Writing Center can also be reached by emailing writingcenter@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 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. A food pantry is available on campus; see https://www.tamusa.edu/mays/students/generals-store.html 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 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, 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.

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).

Important Dates

- August 25: First Class Day
- September 1: Labor Day Holiday-No classes
- September 2: Last Day to register
- September 10: Census Date
- November 14: Last day to drop with an automatic grade of "W"
- November 25: Last day to withdraw from the university
- November 27-29: Thanksgiving Holiday-No classes
- December 4: Last Day of Classes
- December 5: Study Day-No Classes
- December 6-12: Final Examinations
- The complete academic calendar is available online: https://www.tamusa.edu/academics/academic-calendar/index.html.

AI Policy. No Use of Generative AI Permitted: MATH2313 assumes that all work submitted by students will be generated by the students themselves, working individually or in groups. Students should not have another person/entity do the writing of any portion of an assignment for them, which includes hiring a person or a company to write assignments and/or using artificial intelligence (AI) tools like ChatGPT. Use of any AI-generated content in this course qualifies as academic dishonesty and violates Texas A&M-San Antonio's standards of academic integrity.

Topics. Topics to be covered include but are not limited to the following:

1: Limits of Functions
2: Calculating Limits & the Concept of Continuity
3: Limits Involving Infinity
4: Derivatives, Rates of Change & Derivatives as Functions
5: Common Differentiation Rules
6: Implicit Differentiation
7: Related Rates, Linear Approximation & the Concept of Differentials
8:Derivatives of Logarithmic & Exponential Functions
9: Derivatives of Inverse Trigonometric Functions
10: Indeterminate Forms &L'Hospital's Rule
11: Maximum & Minimum Values, & the Mean Value Theorem
12: Derivatives & Shapes of Graphs
13: Antiderivatives & Evaluating Definite Integrals
14: The Fundamental Theorem of Calculus

Note: We may run out of time to cover all the topics, but the goal here is to master **Differentiation** and introduce **Integration** before moving on to Calculus II.

Math-2313 Sec.006, Fall 2025 Tentative Schedule

Week	**Date**	**Topics**
1	M. Aug. 25^{th}	Introduction & Syllabus
	W. Aug. 27^{th}	1.1: Functions & Their Representation
2	M. Sep. 1^{st}	**Labor Day-No Class**
	W. Sep. 3^{rd}	1.2: A Catalog of Essential Functions
3	M. Sep. 8^{th}	1.3: The Limit of a Function
	W. Sep. 10^{th}	1.4: Calculating Limits
4	M. Sep. 15^{th}	1.5: Continuity
	W. Sep. 17^{th}	1.6: Limits Involving Infinity
5	M. Sep. 22^{nd}	2.1: Derivatives & Rates of Change
	W. Sep. 24^{th}	2.2: The Derivative as a Function
6	M. Sep. 29^{th}	2.3: Basic Differentiation Formulas
	W. Oct. 1^{st}	2.4: The Product & Quotient Rules
7	M. Oct. 6^{th}	**Exam I**
	W. Oct. 8^{th}	2.5: The Chain Rule
8	M. Oct. 13^{th}	2.6: Implicit Differentiation
	W. Oct. 15^{th}	2.7: Related Rates
9	M. Oct. 20^{th}	3.1: Exponential Functions
	W. Oct. 22^{nd}	3.2: Inverse Functions & Logarithms
10	M. Oct. 27^{th}	3.3: Derivatives of Logarithmic & Exponential Functions
	W. Oct. 29^{th}	3.5: Inverse Trigonometric Functions
11	M. Nov. 3^{rd}	3.6: Hyperbolic Functions
	W. Nov. 5^{th}	**Exam II**
12	M. Nov. 10^{th}	3.7: Indeterminate Forms & L'Hospital's Rule
	W. Nov. 12^{th}	4.1: Minimum & Maximum Values
13	M. Nov. 17^{th}	4.3: Derivatives & the Shapes of Graphs
	W. Nov. 19^{th}	4.4: Curve Sketching
14	M. Nov. 24^{th}	4.5: Optimization Problems, [**Exam III-Take Home**]
	W. Nov. 26^{th}	**Study Day-No Class**
15	M. Dec. 1^{st}	4.7: Antiderivatives
	W. Dec. 3^{rd}	5.1: Areas & Distances, [**Exam III Due**]
16	M. Dec. 8^{th}	**Final Exam 2:00 PM-3:50 PM**