

# MATH 2312 Pre-Calculus Syllabus

Texas A&M University–San Antonio  
Department of Computational, Engineering,  
and Mathematical Sciences  
Fall 2024



TEXAS A&M UNIVERSITY  
SAN ANTONIO

## Course Description

### Instructor Info

Edward Duran  
[eduran@tamusa.edu](mailto:eduran@tamusa.edu)  
Office: Hall 334  
Office hrs:  
M 11-12 p.m.  
Tu 3:30 - 5 p.m.  
Th 12:30 - 1:50 p.m.

### Important websites

[Department Website](#)

### Grading scheme

Exams ( $3 \times 15\%$ )	45%
Final Exam	30%
Final exam is comprehensive.	
Quizzes*	17%
Online Homework	8%
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Total	100%
(*) lowest dropped	

### Important dates

Exams		
Sep. 16	Oct. 16	Nov. 18
Final Exam		
Dec. 11		

### Summary

In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included. This course meets the standards for the Mathematics category of courses under the core curriculum and address the following required objectives: Critical Thinking, Communication, and Empirical Quantitative Skills.

**Prerequisites** MATH 1314 College Algebra with a grade of C or higher.

### Textbook and Required Materials

Precalculus Essentials by Robert F. Blitzer, 6th Ed., with MyMathLab, Pearson Publishing, 2022, ISBN 9780136921745. (E-book package as part of course registration.)

- ◆ Access codes are available in Blackboard, through the Brytewave link
- ◆ You will automatically be billed directly for your access code to your student account. Please see your instructor if you choose to opt out.

**Calculators** Basic scientific calculators (non-graphing, non-programmable) are permitted on quizzes and exams. A TI-30XIIS scientific calculator is highly recommended. Cell phones, graphing calculators, and online math utilities are not allowed on quizzes or exams. When appropriate, more advanced calculators and software may be used on homework assignments and during class discussion.

## Student learning outcomes

MATH 2312 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 and explaining appropriately model applicable real-world situations.

Upon completion of this course, students will:

1. Demonstrate understanding and knowledge of properties of functions from graphical, tabular, symbolic, or verbal representations.

2. Identify and apply appropriate strategies for solving equations involving algebraic, transcendental, and trigonometric functions.
3. Interpret and apply graphing techniques to algebraic and transcendental functions.
4. Compute and apply the values of trigonometric functions for key angles in all quadrants of the unit circle measured in both degrees and radians.
5. Prove and apply trigonometric identities.
6. Interpret and solve applications related to right and oblique triangles.

**List of topics**

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

- ◆ Functions and relations
- ◆ Inverse functions
- ◆ Exponential and logarithmic functions, and their properties
- ◆ Exponential and logarithmic equations with applications
- ◆ Angles and their measures
- ◆ Trigonometric functions and right triangle trigonometry
- ◆ Trigonometric functions of any angle
- ◆ Graphs of sine and cosine and other trigonometric functions
- ◆ Inverse trigonometric functions
- ◆ Trigonometric identities
- ◆ Trigonometric equations
- ◆ The laws of sines and cosines

The instructor reserves the right to modify/update the topics as appropriate.

**Grading policy**

The final course grade for both MATH 2312 is calculated as follows:

Exams (3 × 15%) ..... 45% Final Exam ..... 30% Final exam is comprehensive. Quizzes* ..... 17% Online Homework ..... 8% <hr style="width: 50%; margin-left: 0;"/> Total ..... 100% (*) lowest dropped	A ..... 90-100 B ..... 80-89 C ..... 70-79 D ..... 60-69 F ..... 0-59
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**Midterm Exams (45% total)**

There will be three in-class midterm exams during the semester and one final . Your lowest midterm exam score will be replaced by your final exam score if your final exam score is a higher score. In case you miss an exam or find out that you will miss an exam, you should contact me either in person or by e-mail, at least one week in advance of the exam for non-emergency cases or within 24-hrs of the scheduled exam date for emergency cases. Any missed exam counts as a 0 unless the student has a valid documented excuse and contacts me as soon as possible after the excuse for missing the test arises. Examples of valid documented excuses are sickness documented with a doctors

note, death in the family documented with a copy of the death notice, attending university-sponsored events with a Deans excuse, etc. Minor headaches or attending sports events (without Deans excuse) are not examples of emergency situations.

### **Final exam (30%)**

In order to pass this class, students must take the final exam scheduled during Finals Week. The exam will cover topics from throughout the semester. Final exams cannot be rescheduled or missed (for dire and unforeseen medical or family emergencies, students must consult with me).

### **Quizzes (17%)**

Ten short quizzes (10-20 min.) will be given throughout the semester (6 during class and 4 online outside of class). Your top eight scores will count toward your grade. There will be no make-up quizzes.

### **Online homework (8%)**

Homework will be assigned regularly with MyMathLab (MML). All due dates are listed in MML. The exercises can be attempted multiple times in order to increase the grade. MyMathLab can be accessed through a link on the Blackboard page or directly at [mlm.pearson.com](http://mlm.pearson.com).

Do not wait until the last minute to do your graded homework assignment. If a problem occurs that keeps you from submitting your assignment on time, **no extensions will be given.** It is your responsibility to submit your work on time and make sure it is submitted properly. Your two lowest homework scores will be dropped. These dropped scores are designed to cover situations where you have technical difficulties or any other issue that keeps you from submitting an assignment on time.

#### **MyMathLab Graded Homework Due Dates**

Graded homework assignments will be DUE by 11:59 PM on the due dates listed on the calendar, without exception. Keys, full solutions, and the "try a similar problem" feature are provided after the due dates and may be accessed in WebAssign via the "past assignments" tab.

### **Class rules**

1. Regular participation and attendance is VERY IMPORTANT in this class! You are enrolling in a SIX HOUR math course, so expect to work on your Math work very frequently. Waiting to work on one day at the end of the week would be disastrous for this six-hour course!! Assignments will be due throughout the week watch deadlines in MML closely. Failure to complete work in each unit will result in a lower participation grade see below.
2. Please do not ask me to extend the due dates. Work ahead on the assignments instead (remember if something can go wrong, it will).
3. If you need additional help, please ask! Your instructor is available to help, and students also have access to free tutoring through Jaguar Tutoring in the ALC, located in the Central Academic Building, second floor. I will be available during office hours or by appointment. Contact me by email at [eduran@tamusa.edu](mailto:eduran@tamusa.edu).

## 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](mailto: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.

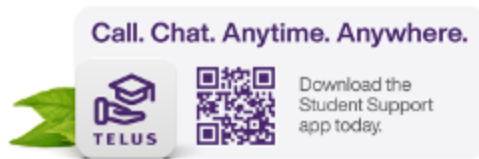
**Academic Accommodations for Individuals with Disabilities** Texas A&M University-San Antonio is committed to providing all students with reasonable access to learning opportunities and accommodations in accordance with The Americans with Disabilities Act, as amended, and Section 504 of the Rehabilitation 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](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** 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](mailto: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 - No appointment needed
Monday	8 a.m. - 6 p.m.	9 a.m. - 5 p.m.
Tuesday	8 a.m. - 6 p.m.	9 a.m. - 5 p.m.
Wednesday	8 a.m. - 6 p.m.	9 a.m. - 5 p.m.
Thursday	8 a.m. - 6 p.m.	9 a.m. - 5 p.m.
Friday	8 a.m. - 5 p.m.	11 a.m. - 4 p.m.

**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](http://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. 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 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 On-line 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](mailto: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 at

<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/university-policies/Student-Rights-and-Responsibilities/file-a-report.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](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 students GPA. However, course drops that exceed the maximum allowed by SB 1231 will be treated as F grades and will impact the students 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 students studies; (3) participate in an alternative program; (4) change the students 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 students 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.

**No Use of Generative AI Permitted** MATH 1314 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.

**Important dates** The complete academic calendar is available online: [The complete academic calendar is available online: https://www.tamusa.edu/academics/academic-calendar/index.html](https://www.tamusa.edu/academics/academic-calendar/index.html) .

August 26	First day of class
September 2	Labor day holiday
November 11	Last day to drop with an automatic "W"
November 19	Last day to drop or withdraw from the university
November 27	Study day – no classes
November 28-30	Thanksgiving Holiday – no classes
December 5	Last day of classes
December 6	Study day – no classes
December 7-13	Final exams

**Students' Rights and Responsibilities** 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>.

## 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.