



MATH0314.05L College Algebra Co-requisite

Fall 2026

Instructor: Dr. David Villalobos

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Class meeting: TR 5:30- 6:45 PM

Classroom: STEM 179

Office hours: Tues and Thurs 7:00 – 8:15 PM
Other times available by appointment

Credit hours: 3 credits MATH, 3 credits support

Course Overview: 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. **Prerequisites:** Evidence of math equivalent to High School Algebra II (“C” or higher) or placement. This course is specifically intended for students that have not yet passed TSIA Math.

Course Materials

REQUIRED: Online access code for *College Algebra* by Robert F. Blitzer (8th edition) with MyMathLab, Pearson Publishing, ISBN 9780134469164 (E-book included with access code).

OPTIONAL: Students can purchase a loose-leaf version of text for a low cost if desired (check bookstore).

Binder for class handouts, notes, etc.; **colored pens/highlighters** recommended.

Calculators: A scientific **non-graphing, non-programmable calculator** is required and allowed on all exams. No cell phone or graphing calculator will be allowed, and online math utilities (e.g., Desmos) are also not allowed. **A TI-30XIIS scientific calculator is highly recommended.**

GRADING POLICY

Graded Course Elements	Percentage
Weekly Participation & Attendance	5%
Written Homework	10%
Quizzes / Homework (Completed on MyMathlab)	10%
4 Unit Tests (13.75% each)	55%
Exam #1 – Thursday, September 17	
Exam #2 – Thursday, October 8	
Exam #3 – Thursday, October 29	
Exam #4 – Thursday, November 19	
Final Exam – Tuesday, Dec. 8 (6:00 PM – 7:50 PM)	20%

Grade Scale for MATH 1314: 90 – 100% = A; 80 – 89% = B; 70 – 79% = C; 60 – 69% = D Below 60% = F

Grade Scale for MATH support portion: 60 – 100% = CREDIT; Below 60% = NO CREDIT

*No late homework or quizzes will be allowed, and individual make-up exams will be given in rare cases and only with instructor approval. **All Homeworks are submitted on blackboard.**

*The final examination is a comprehensive exam and is required of all students. The final exam may also replace a low or missing test grade.

*The grading policy may be amended during the semester at the instructor's discretion.

Final Exam – Tuesday, Dec. 8_ (6:00 PM – 7:50 PM)

Final Exam: In order to pass this class students must take a comprehensive final exam scheduled during Finals Week. Final exams cannot be rescheduled or missed (for dire and unforeseen medical or family emergencies, students must consult with me). The final exam will also be taken online with work submitted to justify your solutions. The final exam may be used to replace your lowest regular exam grade. **The final exam must be completed by the announced due date. No exceptions.**

Student Learner Objectives

Upon completion of this course, students will:

1. Demonstrate understanding and knowledge of properties of functions, including domain and range, operations, compositions, and inverses.
2. Recognize and apply polynomial, rational, radical, exponential, and logarithmic functions, and solve and explain related equations.
3. Interpret and apply graphing techniques.
4. Evaluate all roots of higher degree polynomial and rational functions.
5. Recognize, solve, apply and explain systems of linear equations using matrices

MATH 1314 helps students develop critical thinking, communication, and empirical and quantitative skills by focusing on student understanding of key algebraic concepts and appropriate applications related to everyday experience.

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

1. Solving linear equations and applying models (Sections 1.2~1.3)
2. Complex numbers (Section 1.4)
 - Factoring techniques (Section P.5)
3. Solving quadratic, rational, and radical equations (Sections 1.2~ 1.5~1.6)
4. Solving linear and compound inequalities (Section 1.7)
5. Solving absolute value equations and inequalities (Sections 1.6~1.7)
6. Distance formula and circles (Section 2.8)
7. Functions and their graphs (Sections 2.1 ~ 2.2)
9. Linear functions and slope (Sections 2.3 ~ 2.4)
10. Transformations of functions and graphing (Section 2.5)
11. Combinations and compositions of functions (Section 2.6)
12. Inverse functions (Section 2.7)
13. Quadratic functions and graphing (Section 3.1)
14. Polynomial functions and graphing (Section 3.2)
15. Zeros of polynomial functions (Sections 3.3 ~ 3.4)
16. Rational functions and graphing (Section 3.5)
17. Introduction to polynomial and rational inequalities (Section 3.6)
18. Direct, inverse, and combined variation (Section 3.7)

19. Exponential and logarithmic functions (Sections 4.1 ~ 4.2)
20. Properties of logarithms: solving exponential and logarithmic equations (Sections 4.3 ~ 4.4)
21. Modeling with log and exponential functions (Section 4.5)
22. Systems of linear and non-linear equations and matrices (Sections 5.1 ~ 5.2, 5.4 and 6.1)
23. More on solutions of systems of linear equations (Sections 6.2 and 6.5)
24. Properties of matrices (Section 6.3)
25. Introduction to sequences and series (Sections 8.1~8.3)

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

Course Requirements and Expectations

Class Attendance: Class attendance will be taken every class meeting.

A student *might* be dropped from the course for excessive absences.

Students should spend a significant amount of time at home working on problems.

Withdraw from the course: **It is the student's responsibility to drop a course.**

Participation tasks: Each week you will have an attendance/participation grade, which is based on you completing tasks that you are asked to do that week. This is an easy grade if you just follow directions and stay checked in from week to week. Participation tasks may include but are not limited to the following: HW, quizzes, and/or tests; other assigned tasks.

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!!

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 in the Central Academic Building, Suite 210. You can also contact us via phone at (210) 784-1335, visit us at the website or email us at dss@tamusa.edu. 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 academic accommodation with Disability Support Services and their instructors as soon as possible.

Academic Learning Center

All currently enrolled students at Texas A&M University-San Antonio can utilize the Academic Learning Center for subject-area tutoring. The Academic Learning Center provides free course-based tutoring to all currently enrolled students at Texas A&M University-San Antonio. Students wishing to work with a tutor can make appointments through the Brainfuse online tutoring platform. Brainfuse can be accessed in the Tools section of Blackboard. You can

contact the Academic Learning Center by emailing tutoring@tamusa.edu, calling (210) 784- 1307, or visiting the Central Academic Building, room 202. Online tutoring is also available for after hours and weekend assistance.

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

Day of the Week	Appointments Available	Walk-in Tutoring (no appointment needed)
Monday	8:00 AM – 6:00 PM	9:00 AM – 5:00 PM
Tuesday	8:00 AM – 6:00 PM	9:00 AM – 5:00 PM
Wednesday	8:00 AM – 6:00 PM	9:00 AM – 5:00 PM
Thursday	8:00 AM – 6:00 PM	9:00 AM – 5:00 PM
Friday	8:00 AM – 5:00 PM	11:00 AM – 4:00 PM

Counseling/Mental Health Resources

As a college student, there may be times when personal stressors interfere with your academic performance and negatively impact your daily functioning. If you are experiencing emotional difficulties or mental health concerns, support is available to you through the Student Counseling Center (SCC). To schedule an appointment, visit our website, call 210-784-1331 or visit Madla 120 between the hours of 8:00 AM and 5:00 PM.

All mental health services provided by the SCC are free and confidential (as the law allows). The Student Counseling Center provides brief individual and group therapy, crisis intervention, consultation, case management, and prevention services. Crisis support is available 24/7/365 by calling the SCC at 210-784-1331 or through the TELUS student support App.

The [TELUS Student Support App](#) provides a variety of mental health resources to include 24/7/365 support for in the moment distress, crisis support, an anonymous peer-to-peer support network, mental health screenings, podcasts, and articles to improve your mental wellbeing.

Emergency Preparedness

JagE Alert is Texas A&M University-San Antonio's mass notification system. In the event of an emergency, such as inclement weather, students, staff and faculty, who are registered, will have the option to receive a text message, email with instructions and updates. To register or update your information visit the [Jag E Alert System website](#). You can access more information about [Emergency Operations Plan and the Emergency Action Plan on our website](#). Download the [SafeZone App](#) for emergencies or call (210) 784-1911. Non-Emergency (210) 784-1900.

Financial Aid and Verification of Attendance

According to the following federal regulation, 34 CFR 668.21: U.S. Department of Education (DoE) Title IV regulation, a student can only receive Title IV funds based on Title IV eligibility criteria which include class attendance. If Title IV funds are disbursed to ineligible students (including students who fail to begin attendance), the institution must return these funds to the U.S. DoE within 30 days of becoming aware that the student will not or has not begun attendance. Faculty will provide the Office of Financial Aid with an electronic notification if a student has not attended by the published Census Date (the first week of class). Any student receiving federal financial aid who does not attend prior

to the published Census Date (the first week of class) will have their aid terminated and returned to the DoE. Please note that any student who stops attending at any time during the semester may also need to return a portion of their federal aid.

Jaguar Writing, Language, and Digital Composing Center (WLDCC)

The Jaguar Writing Center provides writing support to graduate and undergraduate students in all three colleges as well as faculty and staff. Writing tutors work with students to develop reading skills, prepare oral presentations, 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 e-portfolios, class presentations, or other digital multimedia projects.

The Writing Center offers face-to-face, synchronous online, and asynchronous digital appointments. Students can schedule appointments with the Writing Center in JagWire under the **Student Services tab**. Click on **Writing, Language, and Digital Composing Center** to make your appointment. Students wanting to work in real time with a tutor can schedule an **Online Appointment**. Students wishing to receive asynchronous, written feedback from a tutor can schedule an **e-Tutoring appointment**. More information about what services we offer, how to make an appointment, and how to access your appointment can be found on the [Writing Center's website](#). 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 report for support](#). Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to direct you to available resources. The [General's Store is a food pantry](#) that is available on campus as well.

Military Affairs

Veterans and active-duty military personnel are welcomed and encouraged to visit the Office of Military Affairs for any question involving federal or state VA Education Benefits. Visit the Patriots' Casa building, room 202, or to contact the Office of Military Affairs with any questions at military.va@tamusa.edu or (210)784-1397.

Religious Observances

Texas A&M University-San Antonio recognizes the wide variety of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided with an opportunity to make up any examination, study, or course work requirements that may be missed due to a religious observance provided they notify their instructors before the end of the second week of classes for regular session classes.

The Six-Drop Rule

Students are subject to the requirements of Senate Bill (SB) 1231 passed by the Texas Legislature in 2007. SB 1231 limits students to a maximum of six (6) non-punitive course drops (i.e., courses a student chooses to drop) during their undergraduate careers. A non-punitive drop does not affect the student's GPA. However, course drops that exceed the maximum allowed by SB 1231 will be treated as "F" grades and will impact the student's GPA.

Statement of Harassment and Discrimination

Texas A&M University-San Antonio is committed to the fundamental principles of academic freedom, equal opportunity, and human dignity. To fulfill its multiple missions as an institution of higher learning, A&M-San Antonio encourages a climate that values and nurtures collegiality and the uniqueness of the individual on our campus and

within our state, nation, and world. All decisions and actions involving students and employees are to be based on applicable law and individual merit. Texas A&M University-San Antonio, in accordance with applicable federal and state law, prohibits discrimination, including harassment, based on race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation, or pregnancy/parenting status. Individuals who believe they have experienced harassment or discrimination prohibited by this statement are encouraged to contact the University's Civil Rights Officer at 210-784-2061 or titleix@tamusa.edu. Texas A&M University-San Antonio faculty are committed to providing a safe learning environment for all students and for the university. If you have experienced any form of sex discrimination or harassment, including sexual assault, sexual harassment, domestic or dating violence, or stalking based on sex, know that help and support are available. A&M-San Antonio's Title IX Coordinator can support those impacted by such conduct in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, and more. The university strongly encourages all students to report any such incidents to the Title IX Coordinator. Please be aware that all A&M-San Antonio employees (other than those designated as confidential resources such as counselors and trained victim advocates) are required to report information about such discrimination and harassment to the university. This means that if you tell a faculty member about a situation of sexual harassment, sexual violence, or other related sex-based misconduct, the faculty member must share that information with the university's Title IX Coordinator (titleix@tamusa.edu, 210-784-2061, CAB 439K). If you wish to speak to a confidential employee who does not have this reporting requirement, you can contact the Student Counseling Center at (210) 784-1331 or visit them in Madla 120.

Pregnant/Parenting Students

Texas A&M-San Antonio does not require a pregnant or parenting student, solely because of that status or issues related to that status, to (1) take a leave of absence or withdraw from their degree or certificate program; (2) limit the student's studies; (3) participate in an alternative program; (4) change the student's major, degree, or certificate program; or (5) refrain from joining or cease participating in any course, activity, or program at the University. The university will provide reasonable accommodation for pregnant students as it would be provided to a student with a temporary medical condition that is related to the health and safety of the student and the student's unborn child. These could include maintaining a safe distance from substances, areas, and activities known to be hazardous to pregnant individuals and their unborn child; excused absences because of illness or medical appointments; modified due dates for assignments; rescheduled tests/exams; taking a leave of absence; and being provided access to instructional materials and video recordings of lectures for excused absences, if these would be provided to any other student with an excused absence. Pregnant/parenting students are encouraged to contact the Title IX Coordinator with any questions or concerns related to their status (titleix@tamusa.edu; 210-784- 2061; CAB 439K).

Texas A&M-San Antonio has also designated the Title IX Coordinator as the liaison officer for current or incoming students who are the parent or guardian of a child younger than 18 years of age. The Title IX Coordinator can provide students with information regarding support services and other resources. Young Jaguars can support parenting students with daycare if students meet this criteria: (1) must be enrolled in classes at Texas A&M-San Antonio in the current semester, (2) must be Pell eligible or a single parent, (3) child(ren) must be aged 3 to 12-years-old, and (4) child(ren) must be enrolled in Pre-K-3 through 6th grade. For more information, please contact Young Jaguars at youngjaguars@tamusa.edu or call (210) 784-2636.

Students' Rights and Responsibilities

The following statement of students' rights and responsibilities is intended to reflect the philosophical base upon which University Student Rules are built. This philosophy acknowledges the existence of both rights and responsibilities, which is inherent to an individual not only as a student at Texas A&M University-San Antonio but also as a citizen of this country.

Students' Rights

1. A student shall have the right to participate in a free exchange of ideas, and there shall be no University rule or administrative rule that in any way abridges the rights of freedom of speech, expression, petition and peaceful assembly as set forth in the U.S. Constitution.
2. Each student shall have the right to participate in all areas and activities of the University, free from any form of discrimination, including harassment, on the basis of race, color, national or ethnic origin, religion, sex, disability, age, and pregnancy/parenting or veteran status in accordance with applicable federal and state laws.
3. A student has the right to personal privacy except as otherwise provided by law, and this will be observed by students and University authorities alike.
4. Each student subject to disciplinary action arising from violations of university students' 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.

Students are expected to exhibit a high level of honesty and integrity in their pursuit of higher education. Students engaging in an act that violates the standards of academic integrity will find themselves facing academic and/or disciplinary sanctions. Academic misconduct is any act, or attempt, which gives an unfair advantage to the student. Additionally, any behavior specifically prohibited by a faculty member in the course syllabus or class discussion may be considered as academic misconduct. For more information on academic misconduct policies and procedures please review the [Student Code of Conduct](#) or visit the resources available in the [OSRR website](#).

Important Spring 2026 Dates

Dates	Event
August 20	Tuition and Fee Payments deadline
August 24	First Day of Class
September 7	Labor Day Holiday – No Classes / University Closed
September 9	Census Date
October 5-16	Midterm grading period
November 13	Last day to drop with an automatic withdrawal

Dates	Event
November 25	Study Day – No classes
November 26-28	Thanksgiving Holiday – No Classes / University Closed
November 30	Last day to drop a course or withdraw from the university
December 4	Last Day of Classes
December 5-11	Final Exams
December 15	Commencement

The complete [Academic Calendar](#) as available on our website.

Artificial Intelligence Policy

(Note: Insert **one** of the AI policy options listed below in your syllabi – Select the one you believe is most appropriate for your course and delete this message and the other options from the page.)

No Use of Generative AI Permitted [Insert Course Number]

This 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.

Tentative Weekly Schedule

MATH 1314 COREQUISITE COLLEGE ALGEBRA

Week	Date	Topic	Assignments
1	T. Aug. 25	Introduction. 1.1 Coordinate Plane, Graphing, x and y intercepts 1.2 Solving Linear Equations	Homework 1
	R. Aug. 27	<i>Optional: 1.3 Models and Applications</i> REVIEW: Simplify Radicals, Operations (Add, Subtract, Multiply, Divide) 1.4 Complex Numbers	Homework 2
2	T. Sept. 1	REVIEW: P.5 Factoring - all types 1.5 Solving quadratic equations by factoring, square root property, completing the square, quadratic formula	Homework 3
	R. Sept. 3	1.6 Solving Rational & Radical Equations	Homework 4
3	T. Sept. 8	NO CLASS	
	R. Sept. 10	1.7 Inequalities – Linear, Compound / Absolute value equations and inequalities	Homework 5
4	T. Sept. 15	Review	
	R. Sept. 17	TEST #1: Chapters 1 (1.1 – 1.7)	
5	T. Sept. 22	2.1 Basics of Functions and graphs 2.2 More on Functions – increasing, decreasing, constant	Homework 7
	R. Sept. 24	2.2 More on Functions – odd/even, symmetry, piecewise (evaluating) / Graphing Piecewise Functions	Homework 8
6	T. Sept. 29	2.2 Difference Quotient 2.3 Linear Functions and Slope 2.4 More on Slope – Parallel and Perpendicular Lines	Homework 9
	R. Oct. 1	2.5 Parent Functions, transformations 2.6 Operations on Functions, composite Functions	Homework 10
7	T. Oct. 6	Review	
	R. Oct. 8	TEST #2: Chapters 2 & 3 (2.1-2.6)	
8	T. Oct. 13	3.1 Quadratic functions; graphing	Homework 11
	R. Oct. 15	3.2 Polynomial Graphs 3.3 Synthetic division; remainder and factor theorems No 2nd Class; class ends at 7 PM	Homework 12
9	T. Oct. 20	3.4 Zeros of polynomials 3.5 Rational Graphs	Homework 13
	R. Oct. 22	3.6 Polynomial and Rational Inequalities <i>Optional: 3.7 Direct Variation</i>	Homework 14
10	T. Oct. 27	Review	
	R. Oct. 29	TEST #3: Chapter 3 (2.7, 3.1 – 3.7)	
11	T. Nov. 3	REVIEW: P.3 Rational Exponents and Exponent Rules 2.7 Inverse Functions 4.1 Exponential Functions (cover graph, solving equations, applications)	Homework 15

	R. Nov. 5	4.2 Logarithmic Functions (cover graph, solving equations, applications) 4.3 Properties of Logs, change of base rule	Homework 16
12	T. Nov. 10	4.4 Exponential and Logarithmic Equations <i>Optional: 4.5 Applications with Logs and Exponential Function</i>	Homework 17
	R. Nov. 12	5.1 Linear Systems in 2 Variables 6.5 Determinants and Cramer's Rule Review	Homework 18
13	T. Nov. 17	Review	
	R. Nov. 19	TEST #4: Chapters 4 (4.1 – 4.5)	
	-----	5.2 Solving systems with 3 Variables 5.4 Non-linear systems 6.1, 6.2 Solving systems with matrices	
14	T. Dec. 1	6.3 Matrix properties, operations & Review 8.1, 8.2, 8.3 Sequences / Sums / Sigma Notation & Review Review for Final – Day 1	
	R. Dec. 3	Review for Final – Day 2 <i>Last Day of Classes Fri., Dec. 4</i> Final Exam: _Tues. Dec. 8_ - Time: 6 PM – 7:50 PM	

This schedule is tentative and will most likely change as the semester progresses. It is provided so that you have a general idea of the order and speed with which we will be covering the material.