



MATH 361-1SE/7RE

Mathematical Modeling of Science for Middle School I

COURSE SYLLABUS: Fall 2026
TR 12:30-1:45pm BA 345, Navarro BC322

INSTRUCTOR INFORMATION

Instructor: Dr. R. Cavender Campbell Office Location: EDN 105
University Email Address: robert.campbell@etamu.edu Math Office Phone: 903-886-5157
Office Hours: MW 12:30-2:30 PM, TR 11:00 AM-12:00 PM, or by appointment
Preferred Form of Communication: **Email** (Zoom available)
Communication Response Time: Same or Next Business Day

COURSE INFORMATION

Textbook

Precalculus, 8th Edition, by Redlin, Stewart and Watson (ISBN: 9781305071759).
Portions of chapters 1 through 8 will be covered.

Course Description

MATH 361 – Mathematical Modeling of Science for Middle School I – Hours: 3

Mathematics will serve as the basis of the course and the following topics will be covered: Mathematical modeling, transformation of functions, data analysis skills, linear models, exponential growth and decay, logarithmic functions, logistic models, power and polynomial models, inverse and direct variation, periodic models and trigonometric functions.
Prerequisites: "C" or better in MATH 1351 or 351.

Student Learning Outcomes

1. Demonstrate and apply knowledge of properties of functions.
2. Recognize and apply algebraic and transcendental functions and solve related equations.
3. Apply graphing techniques to algebraic and transcendental functions.
4. Compute the values of trigonometric functions for key angles in all quadrants of the unit circle measured in both degrees and radians.
5. Prove trigonometric identities.
6. Solve right and oblique triangles.
7. Apply techniques of functions and trigonometry to teaching math concepts from grades 4-8.

The syllabus/schedule are subject to change.

Student Assessment Outcomes

1. Critical Thinking: The above learning objectives will be assessed for critical thinking in homework and other classroom activities.
2. Written, Oral, & Visual Communication: Students will be assessed on written, oral, and visual communication skills on their quizzes, tests, and homework.
3. Empirical and quantitative reasoning: All assessments in this course will contain a quantitative reasoning and empirical computation component.

Core Objectives

1. Students will be able to analyze, evaluate, or solve problems when given a set of circumstances, data, texts, or art. This common core learning objective will be assessed on the final exam using key questions that will fulfill these objectives.
2. In written, oral, and/or visual communication, students will communicate in a manner appropriate to audience and occasion, with an evident message and organizational structure. This objective will be assessed using class activities and class discussion.
3. Students will be able to interpret, test and demonstrate principles revealed in empirical data and/or observable facts. This common core learning objective will be assessed using in class discussion and projects, homework, and final exams.

COURSE REQUIREMENTS

Students should complete assignments by the due dates and clearly communicate any mathematical ideas necessary to demonstrate understanding of the topics. Instruction will include lectures and demonstrations along with group assignments and discovery style activities. Students should attend all class meetings and communicate with the instructor should difficulty with the material arise.

Students must register for WebAssign to complete homework assignments. WebAssign will be accessed through D2L. Students can use the WebAssign 14-day free trial to start working on homework if students cannot purchase it right away. WebAssign access must be purchased at the end of the temporary access period to prevent a loss in grade points.

Daily attendance is expected and will be tracked by the instructor. The student is responsible for ensuring they are counted present for the day by arriving punctually to the start of class. Exceptions and accommodations can be made on a case-by-case basis. Attendance is 3% of the final grade. This is computed by taking the number of attended classes and dividing by 28 (the number of scheduled meetings minus 1).

A graphing calculator (e.g., TI-84) is highly recommended. A computer algebra system (e.g. Mathematica) is useful but not required, though one may be used for in-class explorations. Computer algebra systems are not permitted on quizzes or tests.

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GRADING

Final Grades will be based on a weighted average using the following categories and weights:

WebAssign – 15%	Attendance – 3%
Course Activities – 10%	Tests (3) – 30%
Teaching Projects – 10%	Final Exam – 18%
Quizzes (6) – 14%	

Grading Scale: Grades will be assigned using the standard scale:

A: 89.5% and above **B:** 79.5% – 89.4% **C:** 69.5% – 79.4% **D:** 59.5% – 69.4% **F:** below 59.5%

Assessments

WebAssign: WebAssign is the primary method for practice and an opportunity to demonstrate understanding of the material. All work in this category is through the WebAssign online platform. This can be accessed through D2L or webassign.net. I encourage you to discuss WebAssign with your classmates or the instructor, but all work that you turn in must be your own. Any work violating the university's guidelines for academic honesty (e.g. plagiarism, cheating, copying, etc.) will receive a grade of zero. Planned due dates are listed in the calendar section of the syllabus. Any changes will be announced with a minimum of one week notice. Further information about WebAssign will be distributed the 1st day of class.

Course Activities: Multiple types of assignments will be included in this category.

- 1) There will be 4 Lab assignments given during the semester. These will be completed as a group assignment during class time. If you miss class on the day they are assigned you can complete them on your own and submit your work later. The assignments will provide greater depth for certain concepts and techniques in Algebra and Calculus.
- 2) Homework assignments will be distributed with some sections of the text. These individual assignments will help the instructor assess your progress in a particular topic. The first one of these assignments is a syllabus assignment distributed the 1st day of class.
- 3) D2L Checks will be completed in the "quizzes" area of D2L. There will be multiple choice and short answer questions that will be auto-graded to quickly assess your progress leading up to each test. There will be one D2L Check due before each test.

Attendance: Attendance is 3% of the final grade. There are 29 scheduled class meetings, including the final exam. Attendance is calculated by dividing the number of attended meetings by 28, effectively allowing one absence without reducing the attendance grade. The student is responsible for ensuring they are counted present for the day by arriving punctually to the start of class.

Teaching Projects: Projects will connect Pre-Calculus knowledge to grades 4-8 mathematics. These can include present an activity relating to course content, connecting Pre-Calculus to the Grades 4-8 TEKS, and connecting to the certification tests for teaching in this area. All projects will be announced with ample time to complete them. The content of the project should promote depth in your understanding of your topic. Grading rubrics, examples, and instructions will be distributed prior to all projects.

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Quizzes: In-class assessments. Similar problems to problems on tests, but the shorter format will allow the professor to see the students' progress on individual concepts.

Tests: Each test combines material from several sections or modules from various sources. The exams will have objective, short answer, and free response style questions. Review materials will be available.

Final Exam: There will be a comprehensive final exam. The format will be substantially the same as other tests. The date for the final exam is determined by the university and will be Thursday, December 10, 10:30am-12:30pm in the regular classroom.

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by East Texas A&M have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements:

LMS Requirements:

<https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>

LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@etamu.edu.

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, an ETAMU campus open computer lab, etc.

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your Instructor.

Please use email or visit the instructor during office hours. The instructor will make every effort to respond by the next business day at the latest. You can also visit with the instructor before or after class, but meetings during this time may be cut short to help all students.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here: <https://community.brightspace.com/support/s/contactsupport>

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COURSE POLICIES

Missed tests will not be made up, but documented absences will be accommodated through other means agreed upon with the instructor. Tests may be taken early if an approved absence is anticipated, and a time arranged with the instructor.

A missed regular quiz can be made up during the professor's office hours until the next quiz or test. Should a documented need arise due to multiple absences it will be considered on a case-by-case basis.

Personal electronic devices and laptops will not be allowed during exams or quizzes. Causing a distraction or creating a barrier to learning for other students will be grounds for banning of device use, but typically devices will be allowed during classes.

Regular class meetings will be conducted in person. Quizzes, Tests, and the Final Exam will take place in person. Remember that attendance is 3% of the final grade.

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the [Student Guidebook](http://www.etamu.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx).

<http://www.etamu.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

ETAMU Attendance

For more information about the attendance policy please visit the Attendance webpages.

<http://www.etamu.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.etamu.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

As mentioned in course requirements, the attendance grade is determined by taking the number of attended classes and dividing by 28 (the number of scheduled meetings minus 1). The student is responsible for ensuring they are counted present for the day by arriving punctually to the start of class.

Academic Integrity

Students at East Texas A&M are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see procedure 13.99.99.R0.

<http://www.etamu.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

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AI Use Policy

East Texas A&M acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow instructor's guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

For further information consult policy: 13.99.99.R0.03 Undergraduate Academic Dishonesty

Nondiscrimination Notice

East Texas A&M University will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Counseling Services

The Counseling Center at East Texas A&M, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit www.etamu.edu/counsel.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in East Texas A&M University buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and East Texas A&M Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to the [Carrying Concealed Handguns On Campus](#)

document and/or consult your event organizer.

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all East Texas A&M campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

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Students with Disabilities-- ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

East Texas A&M University

Waters Library- Room 162

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: studentdisabilityservices@etamu.edu

Website: [Office of Student Disability Resources and Services](http://www.etamu.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/)

<http://www.etamu.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

COURSE OUTLINE / CALENDAR

8/20	Syllabus, Coordinates, & Graphs (Ch. 1)		Aug. 20 1 st Day
8/25	Functions & Transformations (Ch. 2)		Aug. 27 Quiz 1
9/1	Unit Circle Trigonometry (Ch. 5)		Sept. 3 Lab 1
9/8	Unit Circle Trigonometry (Ch. 5)	Sept. 7 Labor Day	Sept. 10 Quiz 2
9/15	Review & Test 1		Sept. 17 Test 1
9/22	Trig Graphing (Ch. 5)		
9/29	Right Triangle Trigonometry (Ch. 6)	Sept. 29 Quiz 3	Oct. 1 Lab 2
10/6	Laws of Sines & Cosines (Ch. 6)	Oct. 6 Quiz 4	Oct. 8 Fall Break
10/13	Solving Triangles (Ch. 6)		Oct. 15 Lab 3
10/20	Review & Test 2		Oct. 22 Test 2
10/27	Trig Identities & Equations (Ch. 7)		
11/3	Trig Identities & Equations (Ch. 7)	Nov. 3 Quiz 5	Nov. 5 Lab 4
11/10	Exponential Functions (Ch. 4)		Nov. 12 Quiz 6
11/17	Exponential Functions (Ch. 4) & Review		
11/24	Test 3	Nov. 24 Test 3	Nov. 26 Thanksgiving
12/1	Polar Coord. & Parametric Eq. (Ch. 8)		
12/10	Final Exam – 10:30am – 12:30pm	Dec. 10 Final Exam	10:30am – 12:30pm

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