



Math 2412.047 Precalculus

Course Syllabus: Fall 2026

"Northeast Texas Community College exists to provide personal, dynamic learning experiences empowering students to succeed."

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Weekday	Office Hours
	Online
	Professor checks email daily.
	Responds quickly.

This syllabus serves as the documentation for all course policies and requirements, assignments, and instructor/student responsibilities.

Information relative to the delivery of the content contained in this syllabus is subject to change. Should that happen, the student will be notified.

Course Description:

This is a standard first course in functional analysis with algebra, geometry, and geometric interpretations. Topics include graphs, inverse functions, polynomial functions, rational and irrational functions, exponential and logarithmic functions, trigonometric functions, inverse trigonometric functions, Law of Sines, Law of Cosines, and analytic geometry. Additional topics such as vectors, polar coordinates and parametric equations may be included. Four credit hours.

Prerequisite(s):

Math 1314 with a grade of "C" or better or an appropriate placement score Student Learning.

Outcomes:

Upon successful completion of this course, students will: 2412.1 Demonstrate and apply

knowledge of properties of functions.

2412.2 Recognize and apply algebraic and transcendental functions and solve related equations.

2412.3 Apply graphing techniques to algebraic and transcendental functions.

2412.4 Compute the values of trigonometric functions for key angles in all quadrants of the unit circle measured in both degrees and radians.

2412.5 Prove trigonometric identities.

2412.6 Solve right and oblique triangles.

Core Curriculum Purpose and Objectives:

Through the core curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world; develop principles of personal and social responsibility for living in a diverse world; and advance intellectual and practical skills that are essential for all learning.

Courses in the foundation area of mathematics focus on quantitative literacy in logic, patterns, and relationships. In addition, these courses involve the understanding of key mathematical concepts and the application of appropriate quantitative tools to everyday experience.

College Student Learning Outcomes:

Critical Thinking Skills

CT.1 Students will demonstrate the ability to 1) analyze complex issues, 2) synthesize information, and 3) evaluate the logic, validity, and relevance of data.

Communication Skills

CS.1 Students will effectively develop, interpret, and express ideas through written communication.

Empirical and Quantitative Skills:

EQS.1 Students will manipulate numerical data or observable facts by organizing and converting relevant information into mathematical or empirical form.

EQS.2 Students will analyze numerical data or observable facts by processing information with correct calculations, explicit notations, and appropriate technology.

EQS.3 Students will draw informed conclusions from numerical data or observable facts that are accurate, complete, and relevant to the investigation.

Evaluation/Grading Policy:

The breakdown of the course requirements is as follows:

%	Requirement
40%	Homework Assignments
30%	Midterm Exam
30%	Final Exam

Semester grades will be earned as follows

Percentage	Letter Grade
90% and above	A
80 %–89%	B
70 %–79%	C
60%–69 %	D
59.9% and below	F

<i>OHM-Lumen Homework:</i>	<i>40%</i>	<i>Online homework on Lumen via Blackboard</i>
<i>Midterm Exam</i>	<i>30%</i>	<i>Online Exam</i>
<i>Final Exam:</i>	<i>30%</i>	<i>Online Exam (must be proctored – read below)</i>

A series of online homework (Lumen OHM) will be worth 40% of your final grade. A Midterm Exam (30%) and Final Exam (30%) will contribute to 60% of the final grade.

Homework via Lumen OHM will be graded when submitted.

Midterm and Final Exams:

- 1)** The Midterm and Final Exams will be proctored and administered in class on the scheduled exam dates.
- 2)** Students are expected to take each exam in class on the assigned date. If you are absent on an exam day, you will need to arrange an in-class make-up time with the instructor.

Make-up exams will not be given unless the student has coordinated with the instructor. Lumen OHM homework will require the use of “Late Passes” if not completed by the scheduled due date. Each student has late passes that extend the assignment due date for 72 hours. Students may use more than one late pass per assignment that is past due.

Any missed work will be made up at the discretion of the instructor. It is the student’s responsibility to contact the instructor.

Required Instructional Materials:

Inclusive Access Course: A discounted textbook fee was added to your student account to cover the cost of the required access code. Inclusive Access Content: 978-1-64087-078-9. You have access to a free digital textbook on openstax.org. If you would like a printed textbook, these are available for purchase.

Publisher: Lumen **ISBN Number:** 978-1-64087-078-9

Optional Instructional Materials:

Print Textbook Precalculus by OpenStax Hardcover: ISBN-10: 1-938168-34-8 ISBN-13: 978-1-938168-34-5
Paperback: ISBN-13: 978-1-50669-812-0

Print copy of the textbook is highly recommended. Research indicates that students learn more and retain it longer from hard copy text.

Minimum Technology Requirements:

Scientific Calculator required. TI-83 or TI-84 is preferred.

Calculators

A classroom set of calculators will be available for student use during class. However, students are encouraged to check out a calculator from the college library for use outside of class and for completing coursework.

NOTE: Both of the versions of the Online Calculators are available for individual purchase by students through our TI Store. A single license for the TI-84 Online Calculator is \$20 per year. The online calculator solutions come with full math functionality. For a full list of specifications and a comparison chart, please click on the link below.

- [TI-84 Plus CE ONLINE Calculator](#) - \$20.00 per year for an individual license

The link to the TI Store where students can purchase their individual licenses is found below:

[TI STORE](#)

Below are some technical requirements for using Blackboard that will help your experience in this course.

You will see the NTCC Tech Support email address and phone number below. Please contact them if you run into any technical problems during the semester. Please let your instructor know you are having difficulties as well.

If you need further NTCC technical support services, please contact Austin Baker or Mary Lou Pemberton at:

abaker@ntcc.edu or 903-434-8279; mpemberton@ntcc.edu or 903-434-8270

Blackboard will work on both a Mac and a PC. (Chromebooks are known to have issues with Blackboard.) It is best to access Blackboard through Fire-Fox or Chrome as your web browser. If you have trouble with any of the activities working properly, you might change your web browser as your first solution. The Default Browser in

Windows 10 is Edge. This browser does not do well with Blackboard! If you go to Windows Accessories, you will find Internet Explorer still on your computer but is not your default browser. If you have any difficulties navigating with Edge, close it and go to Internet Explorer. You can download Blackboard Student for your smartphone from the Play Store or the App Store.

More information is available for Technology Requirements and Support under the [Student Resources – Technical Support Tab in Blackboard](#).

Required Computer Literacy Skills:

As an online student who is also in a traditional classroom environment, you will have a much different "classroom" experience than a traditional student. To ensure that you are fully prepared for your online course, the following is a list of expectations and requirements: Students in an online program should be comfortable with and possess the following skill sets:

1. Self-discipline
2. Problem-solving skills
3. Critical thinking skills
4. Enjoy communication in the written word

As part of your online experience, you can expect to utilize a variety of technology mediums as part of your curriculum:

1. Communicate via email, including sending attachments.
2. Navigate the World Wide Web using a Web browser such as Internet Explorer.
3. Use office applications such as Microsoft Office (or similar) to create documents.
4. Be willing to learn how to communicate using a discussion board and upload assignments to a classroom Web site.
5. Be comfortable uploading and downloading saved files.
6. Have easy access to the Internet.
7. Navigate Blackboard, including using the email component within Blackboard. Instructions and tutorials for this are provided in your course.

For more information or technical assistance on using the Learning Management System, please refer to the Home Page, Orientation Module, in the important technical requirement, information and support folder in Blackboard.

Course Structure and Overview:

This is a 16-week course where students are required to access graded activities on the Blackboard Learning Management System. Students are required to complete online homework, as well as other assignments. It is very important for students to keep up with course materials and assignments. Students are expected to watch instructional videos, read course textbooks, and complete online assignments located in the Learning Management System, Blackboard, by due dates.

Communications:

Email messages will be responded to within 24 hours. If you do not receive a response within 24 hours, then the email message was not received. Students are expected to abide by Netiquette rules when communicating online. See this link for details: [Netiquette Rules](#).

Institutional/Course Policy:

No late work will be accepted without approval by the instructor. It is the student's responsibility to check Blackboard and email for important information/announcements regarding the course. Students should be working on course material via Blackboard every day. Do not wait until the last minute to complete and submit assignments in case of technology issues.

Alternate Operations During Campus Closure and/or Alternate Course Delivery Requirements:

In the event of an emergency or announced campus closure due to a natural disaster or pandemic, it may be necessary for Northeast Texas Community College to move to altered operations. During this time, Northeast Texas Community College may opt to continue delivery of instruction through methods that include, but are not limited to, online through the Blackboard Learning Management System, online conferencing, email messaging, and/or an alternate schedule. It is the responsibility of the student to monitor NTCC's website (<http://www.ntcc.edu/>) for instructions about continuing courses remotely, Blackboard for each class for course-specific communication, and NTCC email for important general information.

Additionally, there may be instances where a course may not be able to be continued in the same delivery format as it originates (face-to-face, fully online, live remote, or hybrid). Should this be the case, every effort will be made to continue instruction in an alternative delivery format. Students will be informed of any changes of this nature through email messaging and/or the Blackboard course site.

Statement Regarding the Use of Artificial Intelligence (AI) Technology:

Employees and students shall be permitted to explore artificial intelligence (AI) and implement its use in and out of the classroom in accordance with policy and administrative regulations. The use of AI shall only be as a support tool to enhance student outcomes or as necessary to engage in research and shall never take the place of faculty, staff, and student decision-making. Any use of AI must comply with law, policy, and administrative regulations relating to student and employee privacy and data security. A student shall only use AI tools with faculty permission and shall be expected to produce original work and properly credit sources, including AI tools used in creating the work.

Example:

APA (7th edition)

OpenAI. (2026). ChatGPT (March 25 version) [Large language model]. <https://chat.openai.com/>

MLA (9th edition)

OpenAI. ChatGPT. 25 Mar. 2026, <https://chat.openai.com/>.

Employees or students who use AI tools to deceptively harm, bully, or harass others shall be disciplined in accordance with policy. [See DH, DIA series, FFD series, FFE, FLB, and the FM series] AI Use by Employees and Students. Northeast Texas Community College 225500 TECHNOLOGY RESOURCES CRB ARTIFICIAL INTELLIGENCE (LOCAL) DATE ISSUED: 12/8/2025 1 of 1 UPDATE 50 CRB(LOCAL)-AJC Adopted: 12/16/2025

NTCC Academic Honesty/Ethics Statement:

NTCC upholds the highest standards of academic integrity. The college expects all students to engage in their academic pursuits in an honest manner that is beyond reproach using their intellect and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. This course will follow the NTCC Academic Honesty and Academic Ethics policies stated in the Student Handbook. Refer to the student handbook for more information on these subjects.

ADA Statement:

It is the policy of NTCC to provide reasonable accommodation for qualified individuals who are students with disabilities. This College will adhere to all applicable federal, state, and local laws, regulations, and guidelines with

respect to providing reasonable accommodation as required to afford equal educational opportunity. It is the student's responsibility to request accommodation. An appointment can be made with the Academic Advisor/Coordinator of Special Populations located in Student Services and can be reached at 903-434-8264. For more information and to obtain a copy of the Request for Accommodations, please refer to the special populations page on the NTCC website.

Family Educational Rights and Privacy Act (FERPA):

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children's educational records. These rights transfer to the student when he or she attends a school beyond the high school level. Students to whom the rights have transferred are considered "eligible students." In essence, a parent has no legal right to obtain information concerning the child's college records without the written consent of the student. In compliance with FERPA, information classified as "directory information" may be released to the general public without the written consent of the student unless the student makes a request in writing. Directory information is defined as: the student's name, permanent address and/or local address, telephone listing, dates of attendance, most recent previous education institution attended, other information including major, field of study, degrees, awards received, and participation in officially recognized activities/sports.

Fall 2026 Schedule (subject to change)

Math2412.047

DUE DATES:

**All assignments due by midnight on the due date.

WEEK 1

Complete the Syllabus Acknowledgement Agreement (in Bb).
Discussion #1

8/30

WEEK2

Module 1: Chapter 1- Introduction to Functions
Read online textbook, watch videos in Bb for each Module 1 section, and complete assigned online homework problems for Module 1.

Sections 1.1, 1.2, and 1.3
Due 9/6

WEEK 3

Continue Module 1:

Sections 1.4, 1.5, 1.6, &
1.7 Due 9/13

WEEK 4

Module 2: Chapter 2 - Polynomial and Rational Functions: 2.1 – 2.2

Sections 2.1 and 2.1
Due 9/20

WEEK 5

Module 3: Chapter 3 - Polynomial and Rational Functions

Sections 3.1, 3.2, 3.3, 3.4,
3.5 Due 9/27

WEEK 6	Continue Module 3	Sections 3.6, 3.7, 3.8, 3.9 Due 10/4
WEEK 7	Midterm Review	Provided on Paper, in class Due 10/8
WEEK 8	MIDTERM In class	10/13
WEEK 9	Chapter 4	10/25 4.1, 4.2, 4.3, 4.4, 4.5, 4.6
WEEK 10	Chapter 7	11/1 7.1, 7.2, 7.3, 7.4
WEEK 11	Chapter 8	11/8 8.1, 8.2, 8.3
WEEK 12	Chapter 9	11/15 9.1, 9.2, 9.3, 9.4, 9.5, 9.6
WEEK 13	Chapters 10 and 11	11/22 10.1, 10.2, 11.1, 11.2, 11.3

WEEK 14	Thanksgiving Break	
WEEK 15	Midterm Review	Provided on Paper, in class Due 12/3
WEEK 16	FINAL EXAM In Class	12/8