



Pre-Calculus – MATH 2412.041 DC

Course Syllabus: Spring 2026

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

Instructor: Kelley Pemberton

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High School Campus

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| Office Hours | Monday | Tuesday | Wednesday | Thursday | Friday | Online |
|--------------|----------------|----------------|----------------|----------------|----------------|--|
| | 1:06 – 1:53 pm | Contact by email during any other time |

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: In-depth combined study of algebra, trigonometry, and other topics for calculus readiness. Four hours credit.

Prerequisite(s): MATH 1314 or equivalent with a grade of “C” or better

Student Learning Outcomes:

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.

Program 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:

A series of online Blackboard engagement opportunities including discussion forums and/or drop-box assignments (25%), and online homework (Lumen OHM) (25%), will be worth 50% of your final grade. A Midterm (25%) and Final Exam (25%) will contribute to 50% of the final grade, both the Midterm and Final Exams MUST be proctored. If you are unable to take your exams at NTCC's Testing Center than you must TEAMS or have an approved proctor. If an exam is not proctored appropriately, a grade of zero will be given. For TEAMS, students are required to have access to a computer with high-speed internet, a microphone, a webcam, and appropriate system rights to download and install the necessary software. Please note, the college does not provide this equipment.

Homework via Lumen OHM graded when submitted. Discussion forums are graded within 72 hours after the due date. The Midterm and Final Exams are graded when submitted except for completion and/or show your work problems, these will be grade within 72 hours after the due date. A grading rubric for discussion forums is available in the Appendix at the end of the syllabus.

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|--------------------------|------|-------------------------------------|
| OHM - Lumen Homework | 30% | Online homework via Blackboard |
| Quizzes | 20% | Online – Must be proctored |
| Participation/Discussion | 10% | Participation in class/ Discussions |
| Midterm/Final Exam | 40% | Online – Must be proctored |
| Total: | 100% | |

- “A” 90 – 100 %
- “B” 80 – 89 %
- “C” 70 – 79 %
- “D” 60 – 69 %
- “F” Below 60 %

Lumen OHM homework will require the use of “Late Passes” if not completed by the scheduled due date. Each student has 255 late passes that extend the assignment due date for 48 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:

Publisher: Sullivan & Sullivan, Precalculus: Concepts Through Functions, A Right Triangle Approach to Trigonometry, 5th edition (Provided by HSISD)
ISBN Number: 9780137979462

LUMEN (Provided by HSISD)

Optional Instructional Materials: None

Minimum Technology Requirements: Students may use HSISD provided laptops and calculators for this course.

Required Computer Literacy Skills: None.

Course Structure and Overview: This is a 16-week embedded dual credit course designed for students who are concurrently enrolled in both a high school precalculus class and the college-level class. The course is managed with information and activities that are posted on the Blackboard Learning Management System and in the classroom. Typical class involves general participation by all students in discussions regarding mathematical principles and procedures being studied. Students are required to complete online homework, quizzes, and exams in addition to in-class discussions. It is very important students keep up with course materials and assignments since this is a college-level course. Students are expected to complete all assignments by due dates.

Communications: The college’s official means of communication is via your campus email address. I will use your campus email address, Hughes Springs ISD email address, Blackboard, and Lumen to communicate with you outside of class. Make sure you keep your campus email cleaned out and below the limit so you can receive important messages.

Institutional/Course Policy: This is a dual credit class held on the Hughes Springs campus. Students are required to follow the attendance and dress code as well as all other rules and acceptable use policies stated in HSHS student code of conduct. Students are expected to behave as responsible college students; therefore, no academic information about a student can be given to another individual or parents without the expressed written consent of the student.

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.

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 accommodations 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 accommodations as required to afford equal educational opportunity. It is the student's responsibility to request accommodations. 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.

Tentative Course Timeline (*note* instructor reserves the right to make adjustments to this timeline at any point in the term)

Course Schedule

| Course Schedule: (Subject to Change) | | | |
|---|--|---|------------------|
| <u>Weeks</u> | <u>Topics</u> | <u>Assignments</u> | <u>Due Dates</u> |
| Week 1: 1/20 – 1/25 | Orientation | *Read through orientation module (Start Course Here) *Complete Syllabus Acknowledgement Agreement *Discussion #1 *Look over Chapter 7 textbook notes | 1/25/26 |
| Week 2: 1/26 – 2/1 | MODULE 7 Ch. 7 Trigonometric Functions of Angles: Sections 7.1 - 7.4 | *Read textbook & watch section videos then complete assigned Lumen HW. *Complete Module 7 Quiz | 2/1/26 |
| Week 3: 2/2 – 2/8 Spring Census 2/4/26 | MODULE 8 Ch. 8 Periodic Functions: Sections 8.1 – 8.3 | *Read textbook & watch section videos then complete assigned Lumen HW. *Complete Module 8 Quiz. | 2/8/26 |
| Week 4: 2/9 – 2/15 | MODULE 9 Ch. 9 Trigonometric Identities and Equations Sections 9.1 – 9.5 | *Read textbook & watch section videos then complete assigned Lumen HW. | 2/15/26 |
| Week 5: 2/16 – 2/22 | MODULE 9 CONT Ch. 9 Trigonometric Identities and Equations Section 9.6 MODULE 10 Ch. 10 Further Applications of Trigonometry: Sections 10.1 – 10.2 | *Read textbook & watch section videos then complete assigned Lumen HW. *Complete Module 9 and Module 10 Quiz | 2/22/26 |
| Week 6: 2/23 – 3/1 | MODULE 1 Ch. 1 Introduction to Functions: Sections 1.1 – 1.5 | *Read textbook & watch section videos then complete assigned Lumen HW. | 3/1/26 |
| Week 7: 3/2 – 3/8 | MODULE 1 CONT Ch. 1 Introduction to Functions: Sections 1.6 MIDTERM | *Read textbook & watch section videos then complete assigned Lumen HW. *Complete Module 1 Quiz *Complete Discussion #2 *REMEMBER: Midterm exam will cover Chapters 7, 8, 9, 10, and 1. | 3/8/26 |
| Week 8: 3/9 – 3/15 | SPRING BREAK | | |

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| Week 9: 3/16 – 3/22 | <p>MODULE 2 Ch. 2 Linear Functions: 2.1 – 2.2</p> <p>MODEULE 3 Ch. 3 Polynomial and Rational Functions: Sections 3.1 – 3.2</p> | <p>*Read textbook & watch section videos then complete assigned Lumen HW *Complete Module 2 Quiz</p> | 3/22/26 |
| Week 10: 3/23 – 3/29 | <p>MODEULE 3 CONT Ch. 3 Polynomial and Rational Functions: Sections 3.3 – 3.6</p> | <p>*Read textbook & watch section videos then complete assigned Lumen HW</p> | 3/29/26 |
| Week 11: 3/30 – 4/5 | <p>MODEULE 3 CONT Ch. 3 Polynomial and Rational Functions: Sections 3.7 – 3.9</p> | <p>*Read textbook & watch section videos then work on assigned Lumen HW. *Complete Module 3 Quiz</p> | 4/5/26 |
| Week 12: 4/6 – 4/12 | <p>MODULE 4 Ch. 4 Exponential and Logarithmic Functions: Sections 4.1 – 4.2</p> | <p>*Complete assigned Lumen HW.</p> | 4/12/26 |
| <p>Week 13: 4/13 – 4/19</p> <p>*Last Day to Withdraw with a grade of "W" is 4/16</p> | <p>MODULE 4 Ch. 4 Exponential and Logarithmic Functions: Sections 4.3 – 4.5</p> | <p>*Read textbook & watch section videos then complete assigned Lumen HW.</p> | 4/19/26 |
| Week 14: 4/20 – 4/26 | <p>MODULE 4 Ch. 4 Exponential and Logarithmic Functions: Section 4.6</p> | <p>*Read textbook & watch section videos and work on assigned Lumen HW. *Complete Module 4 Quiz</p> | 4/26/26 |
| Week 15: 4/28 – 5/3 | STUDY | <p>*Study for final exam. *Complete Discussion #3</p> | 5/3/26 |
| <p>Week 16: 5/4 – 5-14</p> <p>FINAL EXAM Exact day and time will be announced closer to end of semester</p> | FINAL EXAM | <p>*REMEMBER: Final exam will be comprehensive.</p> | 5/14/26 |