Math 2412.041 DC – Precalculus F2F

Spring 2024

# Instructor Information

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| Instructor | Email and phone number | Office Location & Hours |
| **Kelley Pemberton** | pembertonk@hsisd.net OR kpemberton@ntcc.edu903-639-3851 | 1:26 – 1:48 (FLEX period on high school campus) OR 3:35 – 4:00 on Mondays and Tuesdays. |

# General Information

## Description

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

## 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 manipulate 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.

# Course Materials

## Required Materials

* Sullivan & Sullivan, Precalculus: Concepts Through Functions, A Right Triangle Approach to Trigonometry, 5th edition (Provided by HSISD)
* MyMath Lab (Provided by HSISD)

## 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 in addition to in-class quizzes, projects, and exams. 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 MyMath Lab 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 though 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 Provacy Act (FERPA):

The Family Educational Rights and Privacy Act (FERPA) is federal law that protects the privacy of student education records. The law applies to all school 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

# Course Schedule

| Week | Topic |
| --- | --- |
| Week 1 | 6.1, 6.2, 6.3, 6.4, 6.5 |
| Week 2 | 6.6,6.7 |
| Week 3 | Unit 6 Test, 5.1, 5.2, 5.3 |
| Week 4 | 5.4, 5.5, 5.6, 5.7 |
| Week 5 | 5.8, Unit 5 Test, 7.1 |
| Week 6 | 7.2, 7.3, Unit 7 Test |
| Week 7 | 1.1, 1.2, 1.3, 1.4 |
| Week 8 | 1.5, 1.6, 1.7 |
| Week 9 | Unit 1 Test, 2.1, 2.2, 2.3 |
| Week 10 | 2.4, 2.5, 2.6, 2.7 |
| Week 11 | Unit 2 Test, 3.1, 3.2 |
| Week 12 | 3.3, 3.4, 3.5, 3.6 |
| Week 13 | Unit 3 Test, 4.1, 4.2, 4.3 |
| Week 14 | 4.4, 4.5, 4.6 |
| Week 15 | Unit 4 Test, 8.2, 8.3, 8.4 |
| Week 16 | 9.2, 9.3, 9.4, FINAL |

\*Schedule is subject to change. Units 8 and 9 covered as time permits.