



College Trigonometry - Math 1316.42d,43d

Course Syllabus: Fall 2019

“Northeast Texas Community College exists to provide responsible, exemplary learning opportunities.”

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Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Online
	7:40-8:10 2:10-3:00	7:40-8:10 2:10-3:00	7:40-8:10 2:10-3:00	7:40-8:10 2:10-3:00	7:40-8:10 2:10-3:00	N/A

The information contained in this syllabus is subject to change without notice. Students are expected to be aware of any additional course policies presented by the instructor during the course.

Catalog Course Description (include prerequisites): Trigonometry is a three-hour credit course. This is a complete course in the study of trigonometric functions of a right triangle, circular functions, applications, graphs, solutions of triangles, identities, inverse trigonometric functions, trigonometric equations, and laws of sines and cosines.

Prerequisite: MATH 1314 or equivalent or an appropriate placement score.

Required Textbook(s):

Sullivan/Sullivan, Precalculus Concepts through Functions – A Right Triangle Approach to Trigonometry, 3rd Edition, 2015

Publisher: Pearson, Boston, MA

ISBN Number: 13: 978-0321645081

Note: The NTCC Bookstore link is at www.ntcc.edu.

Recommended Reading(s):

None

Student Learning Outcomes:

Upon successful completion of this course, students will

- 1316.1** Compute the values of trigonometric functions for key angles in all quadrants of the unit circle measured in both degrees and radians.
- 1316.2** Graph trigonometric functions and their transformations.
- 1316.3** Prove trigonometric identities.
- 1316.4** Solve trigonometric equations.
- 1316.5** Solve right and oblique triangles.

1316.6 Use the concepts of trigonometry to solve applications.

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.

SCANS Skills:

N/A

Course Outline:

Chapter 1 Functions (Optional Review)

1.1 Functions

1.2 The Graph of a Function

1.3 Properties of Functions

Chapter 5 Trigonometric Functions

- 5.1 Angles and Their Measure
- 5.2 Right Triangle Trigonometry
- 5.3 Computing the Values of Trigonometric Functions of Acute Angles
- 5.4 Trigonometric Functions of any Angle
- 5.5 Unit Circle Approach: Properties of the Trigonometric Functions
- 5.6 Graphs of the Sine and Cosine Functions
- 5.7 Graphs of the Tangent, Cotangent, Cosecant, and Secant Functions
- 5.8 Phase Shift; Sinusoidal Curve Fitting

Chapter 6 Analytic Trigonometry

- 6.1 The Inverse Sine, Cosine, and Tangent Functions
- 6.2 The Inverse Trigonometric Functions (Continued)
- 6.3 Trigonometric Equations
- 6.4 Trigonometric Identities
- 6.5 Sum and Difference Formulas
- 6.6 Double-angle and Half-angle Formulas
- 6.7 Product-to-Sum and Sum-to-Product Formulas (Optional)

Chapter 7 Applications of Trigonometric Functions

- 7.1 Applications Involving Right Triangles
- 7.2 The Law of Sines
- 7.3 The Law of Cosines
- 7.4 Area of a Triangle (Optional)
- 7.5 Simple Harmonic Motion; Damped Motion; Combining Waves (Optional)

Evaluation/Grading Policy:

Average of exams	60%
Daily/Homework	20%
Final Exam	20%

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

There will be no exemptions from the college final.

Other Course Requirements

A graphing calculator will be required for this class.

Student Responsibilities/Expectations:

I. Information

Please remember that this is a college course being offered on the high school campus. Since this is a college course I am not allowed to give any information to a parent without the written consent of the

student. This class is governed by the Vice President for Instructional Services at Northeast Texas Community College. Any problems with the class should be directed to the college not the high school. Mount Pleasant ISD employees shall not influence the grading policies, procedures or other academic policies of this class. In a dual credit environment, high school students are expected to behave as college students.

II. Attendance

Regular and punctual attendance at all classes is expected and necessary for successful completion of course work. Attendance rules for Mount Pleasant High School must be met. Students are expected to take exams and complete assignments as scheduled. No late work is accepted. Any unexcused absence from a test will result in a 0 on the test.

NTCC Academic Honesty Statement:

"Students are expected to complete course work in an honest manner, using their intellects and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. NTCC upholds the highest standards of academic integrity. This course will follow the NTCC Academic Honesty policy stated in the Student Handbook."

Academic Ethics

The college expects all students to engage in academic pursuits in a manner that is beyond reproach. Students are expected to maintain complete honesty and integrity in their academic pursuit. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. Refer to the student handbook for more information on this subject.

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 Shannin Garrett, Academic Advisor/Coordinator of Special Populations located in the College Connection. She can be reached at 903-434-8218. For more information and to obtain a copy of the Request for Accommodations, please refer to the [NTCC website - Special Populations](#).

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.

Other Course Policies:

There will be no cell phone usage in the classroom. Students will be warned if caught using a phone during class. A student will be removed from class if the disruption continues. On testing days, all bags will be placed at the front of the room and all cell phones will be placed in the bag on the wall.

The college’s official means of communication is via your campus email address. I will use your campus email address, and Remind 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.