

Northeastern Technical College

MAT 111

College Trigonometry

Course : MAT 111

Title : College Trigonometry

Credits: 3 Hours

Instructor:

email:

Office:

Telephone Number:

Office Hours:

Prerequisites: Acceptable placement score or completion of MAT 110 with a grade of AC@ or better.

Description: This course includes the following topics: circular functions; trigonometric identities; solutions of right and oblique triangles; solution of trigonometric equations; polar coordinates; complex numbers, including Demoivre's theorem; vectors; conic sections; sequences; and series.

Textbook(s) or Alternative: *Algebra and Trigonometry*, 3rd edition by Blitzer.

Learning Outcomes: The student will be introduced to topics listed in the course description with an emphasis on mastering skills in the areas of algebra, coordinate geometry, equations, graphing, and conic sections which, coupled with the material presented in the College Trigonometry course, will be of direct and immediate use in most calculus courses.

Attendance: (Math Department Policy) Students are expected to attend all scheduled classes and are responsible for all class work, homework, notes, etc., whether or not they are present. In the event of extenuating circumstances, such as illness, you are allowed to miss up to 8 hours. The student will be dropped after missing more than 8 hours of scheduled classes. If an instructor drops a student for excessive absences at any time during the semester, a grade of AF@ will be assigned. If the student withdraws from the course, a grade of AW@ or AWF@ will be assigned as outlined in the college catalog. THERE IS NO SUCH THING AS AN EXCUSED ABSENCE!! IF YOU EXCEED THE ALLOWED NUMBER OF ABSENCES, YOU WILL BE DROPPED. A student is considered tardy if not present for roll call, which is taken at the beginning of the class. Three tardies constitute 1 hour of absence.

Academic Dishonesty: Students are expected to do their own work. Please refer to the NETC Student Code and Grievance Procedure for a definition of academic dishonesty and an outline of the disciplinary action that may result.

Student Disabilities:

Students with disabilities are encouraged to contact the Vice-President for Student Services to discuss needs or concerns as they pursue an academic program and participate in campus life. The Vice-President for Student Services will provide guidance regarding official documentation of disabilities and/or accommodation of needs.

Classroom Etiquette:

1. Electronic communication devices (pagers, cell phones, etc.) are NOT allowed in the classrooms. On-call emergency personnel should see the instructor for an exemption.
2. No visible food or drinks are allowed in the classrooms.
3. No radio or headphones are allowed in the classrooms.

ID Policy:

It is mandatory that every student wears his/her ID at all times when on the Cheraw campus.

During the first week of classes, the instructor will issue a reminder to wear the ID. This reminder is a warning.

After the first week of classes, instructors are required to dismiss students without an ID from class. The student may get his/her ID (or a new one in Student Services for \$3.00) and return to class before the midpoint of the class. If the student cannot get an ID and return to class by the midpoint, the instructor will record the absence.

Evaluative Methods to Appraise Objectives: Chapter or topical tests will be used to compute your final grade for Mat 111. If a final exam is given, it will count 20% of the final grade; the remaining 80% will be the average of other tests given during the term. If no exam is given, the final grade will be the arithmetic average of all tests given. The lowest test grade will not be dropped even if a final exam is given.

Make-Up Test Procedure:

No make-up tests are given except in extenuating circumstances. The **student** is responsible for contacting the instructor **prior** to the time the test is scheduled to arrange a meeting to discuss the process of making up the missed test.

Grading Scale:

- A = 93 - 100
- B = 85 - 92
- C = 77 - 84
- D = 69 - 76
- F = BELOW 69

Tentative Class Outline

<u>Week</u>	<u>Chapter</u>	<u>Description</u>
1 - 6	5	<i>Trigonometric Functions</i> 5.1 Angles and Radian Measure 5.2 Right Triangle Trigonometry 5.3 Trigonometric Functions of Any Angles 5.4 Trigonometric Functions of Real Numbers 5.5 Graphs of Sine & Cosine Functions 5.6 Graphs of Other Trigonometric Functions 5.7 Inverse Trigonometric Functions 5.8 Applications of Trigonometric Functions
7 - 11	6	<i>Analytic Trigonometry</i> 6.1 Verifying Trigonometric Identities 6.2 Sum and Difference Formulas 6.3 Double- and Half-Angle Identities 6.4 Product to Sum and Sum to Product Formulas 6.5 Trigonometric Equations
12 – 15		<i>Additional Topics in Trigonometry</i> 7.1 The Law of Sines 7.2 The Law of Cosines 7.3 Polar Coordinates 7.4 Graphs of Polar Equations 7.5 De Moivre's Theorem
	10	<i>Conic Sections and Analytic Geometry</i> 10.1 Ellipse 10.2 Hyperbola 10.3 Parabola
	11	<i>Sequences, Induction, and Probability</i> 11.1 Sequences and Summation Notation 11.2 Arithmetic Sequences 11.3 Geometric Sequences and Series