



CHIPOLA COLLEGE

Dual Enrollment – Holmes District



MAC 1114 – PLANE TRIGONOMETRY

INSTRUCTOR: **Martha Compton**, ComptonM@hdsb.org , 547-6674 ext 265

GRADING POLICIES

Exams: Announced tests will be given during the semester that will account for 70% of the semester grade. These tests will be given as indicated in the course outline. If it becomes necessary to deviate from this outline, changes will be announced at least two class periods prior to the exam. Each student must take a cumulative final exam at the time scheduled by the college in order to receive a satisfactory grade in this course. The final exam will account for 20% of the semester grade.

Homework and Attendance: Homework will account for 10% of the semester grade. Two of the most important things you can do to assure success in a mathematics course are to complete all homework assignments on time and attend all classes. To receive credit for homework the assignment must be complete, all required work must be shown, and must be meet all deadlines unless other arrangements are made. No additional extra credit work will be assigned.

MAKE-UP POLICY: If you miss a test for a substantiated reason, you will be allowed to take a make-up test on the day you return. The make-up exam will cover the same material as the test missed, but will not be the same test. It is your responsibility to contact the instructor about make-up exams and assignments. Failure to make these arrangements will result in an automatic zero for the missed test. You will not be allowed to make up a test missed for an unexcused reason and will be allowed only one make-up test per semester.

ASSIGNMENT SCHEDULE: Assignments will be announced during each class period.

MATH DEPARTMENT ATTENDANCE AND TARDY POLICY: Math Department attendance policy states that any student who accumulates more than ten absences will automatically fail this course. An appeal may be made in writing to an appeal committee. This appeal may or may not be approved. This instructor may count three tardies as equivalent to one absence for the purposes of accumulated absences for the semester.

WITHDRAWAL POLICY: If you officially withdraw from a course, a "W" will appear in place of a grade. Withdrawing from class must be done officially. Merely to stop attending class does not constitute an official withdrawal. Any student who needs to withdraw from this course should obtain the necessary forms from the Registrar's Office. Students who do not follow these procedures will receive a grade of "F" at the end of the semester.

Course Outline

1. The Trigonometric Functions.

Angles.

Angle Relationships and Similar Triangles.

Trigonometric Functions

Using the Definitions of the Trigonometric Functions.

2. Acute Angles and Right Triangles.

Trigonometric Functions of Acute Angles.

Trigonometric Functions of Non-Acute Angles.

Finding Trigonometric Function Values Using a Calculator.

Solving Right Triangles.

**Further Applications of Right Triangles. (Later)

Exam One

3. Radian Measure and the Circular Functions.

Radian Measure.

Applications of Radian Measure.

The Unit Circle and Circular Functions.

**Linear and Angular Velocity. (Later)

4. Graphs of the Circular Functions.

Graphs of the Sine and Cosine Functions.

Translations of the Graphs of the Sine and Cosine Functions.

Graphs of the Other Circular Functions.

Harmonic Motion.

Exam Two

5. Trigonometric Identities.

Fundamental Identities.

Verifying Trigonometric Identities.

Sum and Difference Identities for Cosine.

Sum and Difference Identities for Sine and Tangent.

Double-Angle Identities.

Half-Angle Identities.

Exam Three

6. Inverse Trigonometric Functions and Trigonometric Equations.

Inverse Trigonometric Functions.

Trigonometric Equations I.

Trigonometric Equations II.

Equations Involving Inverse Trigonometric Functions.

7. Applications of Trigonometry and Vectors.

Oblique Triangles and the Law of Sines.

The Ambiguous Case of the Law of Sines.

The Law of Cosines.

Exam Four

7. Applications of Trigonometry and Vectors. (continued)

** Section skipped above will be covered here.

Vectors and the Dot Product.

Applications of Vectors.

8. Complex Numbers, Polar Equations, and Parametric Equations.

Complex Numbers.

Trigonometric (Polar) Form of Complex Numbers.

The Product and Quotient Theorems.

Powers and Roots of Complex Numbers.

Polar Equations and Graphs.