**COURSE OUTCOME:**

**Course Description**

A survey of the fundamental and advanced concepts of plane geometry and the related topics in three dimensional geometry, coordinate geometry and transformational geometry. The course begins with necessary introductory vocabulary and continues with algebraic and geometric proofs based on an axiomatic system. Applications of the theorems are inter-mixed to help the student grasp an understanding of how geometry is used in different careers and everyday life. Algebra is utilized extensively in this course. Successful completion of this course prepares a student for further work in Algebra II.

**Hyperlink to local curriculum, state standards, and/or competencies**

**http://tennessee.gov/education/ci/math/doc/MA\_3108.pdf**

**INSTRUCTION:**

**Topics/Skills Covered**

**Congruence**

• Experiment with transformations in the plane

• Understand congruence in terms of rigid motions

• Prove geometric theorems

• Make geometric constructions

**Similarity, Right Triangles, and Trigonometry**

• Understand similarity in terms of similarity transformations

• Prove theorems involving similarity

• Define trigonometric ratios and solve problems involving right triangles

• Apply trigonometry to general triangles

**Circles**

• Understand and apply theorems about circles

• Find arc lengths and areas of sectors of circles

**Expressing Geometric Properties with Equations**

• Translate between the geometric description and the equation for a conic section

• Use coordinates to prove simple geometric theorems algebraically

**Geometric Measurement and Dimension**

• Explain volume formulas and use them to solve problems

• Visualize relationships between two-dimensional and three-dimensional objects

**Modeling with Geometry**

• Apply geometric concepts in modeling situations

**General Pacing**

Geometry consists of 8 common core modules that are spread out of the 18 week course. The pace of the course depends on the length and material contained in each module, as well as the students understanding of the material.

**Materials Needed**

\*1.5” or 2*"* three ring binder  
\*9 notebook dividers (labeled Module 1 – 8, and Final Exam Prep)

\*2 Pocket Folder (color TBA by class block)

\*Pencils   
\*Colored Pencils/Markers

\*Black Sharpie (fine or extra fine)  
\*Loose-leaf paper (no spiral bound)  
\*Scientific Calculator - TI-84 recommended  
\*Geometry Set (compass, protractor, ruler, triangle ruler) - Individual items can be purchased if a set is not available.

**Fees**

**Geometry classes have a $5.00 fee.**

**This fee is for the purpose of providing calculators, batteries, and other materials for**

**classroom use. All fees may now be paid online through the school website.**

**Resources**

* School-based: Textbooks for the course are available to students. However, the new standards do not align correctly with our current adopted textbook. All materials will be teacher provided. The textbook may be signed out to use as an additional resource.
* On-line:
  + IXL – This is a new program being used by the math department to prepare students for state testing. The online format helps students prepare for the types of questions they will see on the final exams. In addition, the math department is using this program as a progress monitoring tool to keep track of students throughout the semester. Students will need access to internet outside of school. The public libraries are available for students without internet access at home.
  + Textbook – The textbook comes with a comprehensive online website that includes tutoring, extra assignments, videos that demonstrate solving problems, etc. Information will be provided in the textbook and available from the teacher when textbooks are

distributed.

**ASSESSMENT:**

**Expectations**

Geometry students will be expected to master all materials listed in the Tennessee State Standards. Mastery will be determined by unit tests, quizzes, Mastery Connect assessments, IXL assignments, projects, and the final comprehensive exam.

**Grading Policy**

Grades will be determined by accumulation of points.

Grade Scale: A 93-100

B 85-92

C 75-84

D 70-74

F below 70

* + - Chapter Tests and quizzes – 45% of total grade
    - Homework , Class Assignments, and Projects – 40% of total grade
    - Final Exam – cumulative exam which will count 15% of final grade

**Explanation of Assignments & Projects**

Geometry Students will be expected to complete several out-of-class projects. A list to choose from will be provided with due dates at a later time.

**Make-Up Work Policy/Late Work Policy**

Students must request make-up work within 3 school days upon their return from an absence. ***Tests and quizzes must be made up before or after school or during the enrichment block.* *They cannot be made up during class*.** Scheduling a time to make tests up is the responsibility of the student! More will be discussed in class at the beginning of the semester about final cut off dates for missing or late work.

**Aspen**

One way in which I am able to communicate with the student and parent is through the Aspen Parent Portal. Assignments will be posted to Aspen, and grades will be updated as assignments are completed and graded in a timely manner.

**GENERAL EXPECTATIONS:**

**Students:**

**Attendance Policy:**

***Attendance policy will follow the Gibbs High School student handbook.***

**Classroom Policy/Procedures:**

**Classroom Rules:**

* + - NO CELL PHONES
    - Be prepared with all materials daily
    - Use class time wisely
    - Be on time
    - Be respectful of teacher and classmates
    - Do your own work – Don’t be a cheater!

**Binder:**

Each student is required to keep a binder. The binder must be brought to class daily. Neatness and organization will be an important part of your overall grade. **A project grade will be taken on the binder at the end of the semester**.

**Notes & Homework:**

* Students are required to take notes daily during instruction. These notes will serve as a study guide for the lesson. Homework assignments should be completed and are subject to be collected at any time. Homework grades are based on the student’s ability to accurately complete problems in their assignments**. *LATE WORK IS NOT ACCEPTABLE*.**

**Honor Code**

* **Students are expected to do their own work. This includes class work, projects, tests, quizzes, etc. If students are found to be in violation of the Honor Code, a zero will be given on the assignment.**

**Teacher:**

**Communication Strategy:**

* Students are encouraged to communicate with the instructor any problems they may be having with class content, projects, etc. Students are encouraged to check their grades on the portal weekly to maintain an understanding of what their grade is and how it fluctuates.
* Parents are encouraged to email the instructor with any questions or concerns at any time.

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**Intervention Strategy:**

Tutoring is available by appointment for now. Students will be notified when the tutoring center is open for the Fall term.

**Acknowlegement:**

Please sign below signifying you have read the course syllabus and understand the expectations:

Parent Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_