



# Zion Chapel HIGH SCHOOL

## MATHEMATICAL MODELING

**Teacher:** Courtney Davidson    **Teacher Email:** [davidsonc@coffeecounty.k12.al.us](mailto:davidsonc@coffeecounty.k12.al.us)

**Course Description:** Mathematical Modeling is a specialized mathematics course developed to expand on and reinforce the concepts introduced in previous high school math courses. The course is designed to engage students in doing, thinking about, and discussing mathematics, statistics, and modeling in everyday life. Mathematical modeling is an important technique used in problem solving, to make sense of the real world. It is often used to help us better understand a situation, to check the effects of change or to inform decision-making. Engaging students in the mathematical modeling process provides them with such opportunities. It is one of the most useful mathematical skills that students will need to be successful in many non-mathematical as well as mathematical courses and careers.

**Course Objectives:** A full list of course standards can be found at:  
<https://www.alabamaachieves.org/wp-content/uploads/2021/03/2019-Alabama-Mathematics-COS-Rev.-6-2021.pdf>

**Supplies:** Pencils, erasers, calculator (graphing or scientific), loose-leaf notebook paper, graph paper, binder (can be shared with other classes if you choose)

**Course Resources:**

- ❖ Textbook: Angel, A. R., Abbott, C. D., & Runde, D. C. (2021). A survey of Mathematics: With applications (11th ed.). Pearson.
- ❖ ACT WorkKeys Website
- ❖ Google Classroom - post notes/assignments, list of make-up work
- ❖ Power School Website - access to student grades
- ❖ Pearson Website - skills practice website (aligned with textbook)

**Classroom Expectations:**

- ❖ Follow all Coffee County and Zion Chapel school rules.
- ❖ Be on time and prepared for class each day.
- ❖ Be an active learner, participate, and follow our classroom procedures and routines – Bellwork, Lesson Activities, etc.
- ❖ Show respect. Expect respect in return. This includes yourself, others, your teacher, and the classroom equipment/supplies.
- ❖ Keep your hands and feet to yourself. No horseplay.

**Progressive Discipline Plan:** This classroom is a learning environment. Behavior that interferes with that learning will be dealt with in the following manner.

- ❖ Incident 1 – Verbal Warning, possible student conference
- ❖ Incident 2 – Break Detention, student conference, possible parent contact
- ❖ Incident 3 – Break Detention (2 days), parent contact
- ❖ Incident 4 – Office Referral

Defiance, profanity, violence, or threatening behavior will result in an immediate office referral without any warning.

**Hall Pass Policy** Students are encouraged to use the restroom in between classes and at break. Of course, there will be instances where a bathroom pass is necessary. Students will have passes out of the classroom that can be used in these situations. It is unlikely that passes will be given to go anywhere else during class time.

**Make-Up Work:** It is the student's responsibility to gather and complete make-up work. A list of daily assignments and notes will be posted on Google Classroom. Paper copies of work will be put in the class folder on the wall. Students are given 3 school days to turn in missed assignments. If you need additional time, please speak with your teacher within the three day period.

**Grading Policies:** **Grading System:** Your overall grade will be based on the Coffee County grading scale. Assignments will be given a point value and put into the following weighted categories:

- Assessments – 60% (quizzes, test, and projects)
- Daily Work – 25% (classwork, homework, small projects, skill practices)
- Nine Weeks Exam – 15%

**Grade Improvement & Extra Credit:** Your grade will be based on your mastery of course standards. Extra credit is not provided, but you may retake any test or quiz. Before a retake is permitted, you must show that you have done additional prep with the material. Discuss your options with your teacher. Retakes will be similar to the original test but not the same and will be given full credit.

**Late Work:** The final day to submit any assignment for a unit is the date of the unit test or final project. No assignments will be accepted after that date without a discussion with school administration. Projects will be accepted late. However points will be deducted. A project that is 1 school day late will be marked down 10%. Projects that are more than 1 day late will receive a 20% markdown.

**Struggling Students:** Each week, help hours will be posted. These days and times will vary from week to week. Get help immediately as soon as you see that you are struggling.

**Academic Integrity:** Cheating and/or copying others' work will not be tolerated. A zero will be given and disciplinary action may be taken based on the school handbook.

**Changes to Syllabus & Classroom Policies** The teacher reserves the right to make changes to this syllabus. Students will be notified when this occurs. Exceptions to classroom policies will be made at the discretion of the teacher. No exceptions will be made to Coffee County Board Policies or ZC School Rules.

**Signature Section** A digital copy of this syllabus can be found on the Google Classroom Page and on the school website. Please sign below and return this page to your teacher.

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

Parent/Guardian Signature \_\_\_\_\_