

Course Purpose and Goals

The ESM course is designed to strengthen a student's mathematical foundation and serves both college and career bound high school seniors. The goal of the course is to deepen conceptual understandings of mathematical theory, skills and strategies. The course is designed to incorporate National Standards for Mathematical Practice and is aligned with specific California high school content standards.

The curriculum is comprised of nine units of study that the Sierra College Math Department and CSU Sacramento Math Department developed in conjunction with local high school math educators. The development of this course was predicated on the idea that with a focus on depth, not breadth, students would master mathematical content and be able to transfer their skills to college and to career pathways.

The nine units of study are:

Unit	Topic
1	Developing the Mathematical Practices: Team Building & Problem Solving
2	Algebraic Foundations for Higher Mathematics: Linear /Quadratic / Exponential Functions
3	Complex Numbers, Polar Coordinates and Vectors
4	Polynomial and Rational Functions
5	Introduction to the Concepts of Calculus
6	Inverse Functions
7	Piecewise and Non-Invertible Functions
8	Matrices and Linear Programming
9	Economic Applications

ESM Grading Policy: Your grade will be based on the following:

Unit Assessments (~65%)

At the end of each unit, there will be a project and/or a written test to assess if you learned the fundamentals of the unit. Some parts will be team oriented and some will be self-reflections or summaries. In addition, there will be quizzes throughout the course.

Collaborative Tasks/Participation (~25%)

Class work is assigned for each lesson and is intended to be completed within a specific time frame. Students who make good use of class time will have minimal homework. If groups are off task, students will have to complete lessons individually at home. Working in groups is an important life skill that you will use in both college and the work place.

Daily Two's/Reflections/Journal Entries (~10%)

Each day, you will complete a warm up and exit slip. Throughout the year you will maintain an organized notebook. You will keep the lesson tasks in this notebook. You will often write a reflection/summary of the day's lesson as well as respond to journal prompts. Your grade will be based on the thoroughness to which you answer the question as well as the clarity in which you explain your reasoning for the answer. This course is unique in that many of the problems are not designed for just one approach so you will need to be an independent thinker and be able to communicate those thoughts on paper.

Grading Scale: (A) 90% and above (B) 80%-89% (C) 70%-79% (D) 60%- 69% (F) Below 60%.

Class Expectations

1. I expect all students to come to class prepared. You are responsible for having your **ESM notebook** with **pencil, paper, scientific calculator** and your **completed assignments** with you daily. Everyone will be expected to solve math problems AND to EXPLAIN their solutions in a meaningful way
2. I expect all students to be respectful and polite. You will be working in teams throughout the year so it is important that you become an effective participating team member. What you say and do to others shows true character above all else. I expect all students to use class time appropriately and to follow all school rules. **There is a time and place for phones; typically the classroom is not one of those places! Please be sure yours are turned OFF.**
3. I expect all students to be mindful of attendance as it is crucial in this class. There is no textbook and much of the work is group-based problem solving. If you are tardy, you need to check in with the main office. If you are absent, it is **your** responsibility to acquire and make up any missed work. If you miss class to participate in school activities, please get your assignment ahead of time. **If your absence is unexcused no makeup is allowed.**
4. I expect all students to come to class with a positive attitude, ready to PARTICIPATE! This class is about "**LEARNING**". Work with your group, ask questions and seek extra help when needed. If you get stuck, confused, or lost ... DON'T GIVE UP!! Mistakes are ok! In fact, they help the brain grow! Learn to ask your team members to explain their ideas and thought process. I am available to you for any extra help that you may need. Don't put this off!! You can get extra help during bruin time and most days at lunch and after school. (Tutoring is also available.) I will do what I can to assure that you succeed in this class, however...

SUCCESS IS ULTIMATELY UP TO YOU!

STUDENT /PARENT AGREEMENT:

I have read and understand Mrs. Burrell's Grading Policy and Class Expectations. I understand the requirements of the class and the expectations of me. I understand that I must keep up with the assignments. I will try my best and attempt every problem. If I have any questions or if I need additional help, I will contact Mrs. Burrell for assistance.

Student's Name: _____ Date: _____

Student's Signature: _____

Parent Signature: _____