

MATH 2: College Algebra for Calculus

Summer Session 2 — 2024

Instructor Information

Name: Divya Maneesha Ampagouni

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Office Hours: Wednesdays - 12:00 noon to 01:00 pm (McHenry 1261)

Class Information

Dates: 29th July 2024 – 30th August 2024

Time: MWF 09:00AM – 11:30AM

Classroom: PhysSciences 130

Course Description

This course introduces fundamental concepts in algebra and functions, covering operations on real and complex numbers, polynomials, and rational expressions. Topics include exponents, radicals, solving linear and quadratic equations, functions, conic sections, mathematical modeling, and sequences and series.

Course Objectives

After this course, you should be able to . . .

- Perform operations on real and complex numbers, polynomials, and rational expressions.
- Simplify expressions involving exponents and radicals.
- Solve linear and quadratic equations and inequalities, both algebraically and graphically.
- Understand the concept of functions, including algebraic operations and graphical representations.
- Apply algebraic principles to mathematical modeling and real-world scenarios.
- Analyze the properties and equations of conic sections.
- Identify and analyze sequences and series.

Textbook

I shall use *College Algebra (Eleventh Edition)*, by Michael Sullivan as a textbook for this course. Purchasing the textbook is not mandatory. However, it can be a helpful supplementary resource for those who may find it beneficial as a reference tool.

Worksheets

After each lecture, worksheet corresponding to the day is available to the students on Canvas. Students are encouraged to collaborate and work in groups on worksheets to enhance their learning experience through peer discussion and shared problem-solving.

Exams

There shall be one midterm and a final exam. The midterm exam is scheduled for Week 3 and the final exam is scheduled for Week 5. Both the exams shall be held during the class hours on Friday.

Grading

The course grade is determined by the following components:

Worksheets	50%
Midterm	25%
Final Exam	25%

Grade Scale

Final grades will be assigned according to the following scale:

A+	96 – 100	A	91 – 95	A–	86 – 90
B+	81 – 85	B	75 – 80	B–	71 – 75
C+	66 – 70	C	61 – 65	C–	56 – 60
D	51 – 55	F	0-50	W	0

Academic Integrity

Academic integrity is fundamental to the educational process and the values of the university. It is essential that students familiarize themselves with the [University's Academic Misconduct Policy](#) and understand the consequences of engaging in academic dishonesty.

DRC Accommodations

If you are a student with a disability who requires accommodations to achieve equal access in this course, please submit your Accommodation Authorization Letter from the [Disability Resource Center \(DRC\)](#) to me privately during my office hours or by email, preferably within the first week of the course. At this time, I would like us to discuss ways we can ensure your full participation in the course. I encourage all students who may benefit from learning more about DRC services to contact the DRC by phone at 831-459-2089 or by email at drc@ucsc.edu.

LSS Tutoring

[Learning Support Services \(LSS\)](#) is UCSC's undergraduate tutoring center, providing essential academic support to help students succeed in their courses. They are designed to enhance your understanding of course material, improve your academic skills, and boost your confidence in a collaborative learning environment. For Summer Session 2, Isabel Kim (she/her) will be the dedicated small group tutor for our College Algebra class. Isabel is an experienced and knowledgeable tutor who is committed to helping you succeed in this course.

Student Resources

The following are some useful student resources

- [Slug Support Program](#)
- [Counseling & Psychological Services \(CAPS\)](#)
- [Title IX Office](#)

Tentative Schedule

The following is a *tentative* schedule for the course.

Week	Monday	Wednesday	Friday
1	Review	Linear & Quadratic Equations	Complex Numbers
2	Equations & Inequalities	Lines & Circles	Functions
3	Properties of Functions	Linear Fns. & Linear Models	Midterm
4	Quad. Fns. & Quad. Models	Polynomial & Rational Fns.	Exponential & Log. Fns.
5	Conics	Sequences	Final Exam

Student Feedback

I value student feedback and believe it is essential for creating an effective and engaging learning environment. To ensure that your concerns are promptly addressed, feedback is collected after every lecture via Canvas. This regular input will help me tailor the course to better meet your needs and improve the overall educational experience. Please feel free to share your thoughts and suggestions during these feedback sessions, as your insights are greatly appreciated.