# College Algebra Course Syllabus Spring 2024, Monday/Wednesday 1:30pm-3:00pm

Instructor: Serena Olivi Email: solivi@uni.edu Office Hours: T/Th 10:00am-1:00pm

#### Course Materials:

Algebra: Beginning and Intermediate by Aufmann & Lockwood (Cengage Learning 3rd Edition) Graphing Calculator Graph Paper Binder or Notebook

Prerequisite: A passing Math Placement Score and placement by the department

### Course Learning Objectives:

- Recognize and use properties of real numbers in order to perform basic operations on algebraic expressions and simplify algebraic expressions when applicable.
- Explore and analyze mathematical information using algebraic methods to solve a variety of problems.
- Solve equations correctly by completing multiple steps in order to arrive at a final answer, and check solutions when possible.
- Identify and graph solutions to systems of equations and multi-variable equations.
- Use algebraic manipulations to rewrite equations, including factoring and completing the square.
- Apply knowledge of functions and graphs to real-world scenarios.

## **Course Description**

Welcome to College Algebra! This year, students will be studying College Algebra. Students will learn and use logical reasoning as they study algebraic patterns and symbolic language. Algebra is used to model real world situations and solve real world problems. It is used to describe the relationship sets of data have. Successful algebra students will analyze and interpret mathematical information presented to them and communicate solutions to problems using information from all areas of math that have been learned so far! Students will be prepared for assessments throughout the semester as well as the end-of-year final exam and have a strong foundational understanding to apply math principles in the real world.

## Course Topics

- Topic 1: Prerequisites
- Topic 2: Solving Equations and Inequalities
- Topic 3: Linear Equations
- Topic 4: Linear Functions
- Topic 5: Systems of Linear Equations and Inequalities
- Topic 6: Exponents and Exponential Functions
- Topic 7: Polynomials and Factoring
- Topic 8: Quadratic Functions
- Topic 9: Solving Quadratic Equations
- Topic 10: Working with Functions

### <u>Tentative Schedule</u>

JANUARY 2024						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
31	1	2	3	4	5	6
7	8	9	10 1st Day of Class	11	12	13
14	15 Begin Topic 1	16	17 Quiz 1	18	19	20
21	22 Begin Topic 2	23	24 Quiz 2	25	26	27
28	29	30	31 Exam 1	1	2	3

FEBRUARY 2024						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
28	29	30	31	1	2	3
4	5 Begin Topic 3	6	7 Quiz 3	8	9	10
11	12 Begin Topic 4	13	14	15	16	17
18	19 Begin Topic 5	20	21 Quiz 4	22	23	24
25	26	27	28 Exam 2	29	1	2

MARCH 2024						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
25 31	26	27	28	29	1	2
3	4 Begin Topic 6	5	6	7	8	9
10	11 Begin Topic 7	12	13 Quiz 5	14	15	16
17	18	19	20	21	22	23
24	25 Begin Topic 8	26	27 Exam 3	28	29	30

APRIL 2024						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
31	1 Begin Topic 9	2	3 Quiz 6	4	5	6
7	8	9	10	11	12	13
14	15 Begin Topic 10	16	17 Quiz 7	18	19	20
21	22	23	24	25	26	27
28	29	30	1	2	3	4

MAY 2024						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
28	29	30	1 Quiz 8	2	3	4
5	6	7	8	9	10	11
12	13 Final Exam	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	1