

**MA 101  
COLLEGE ALGEBRA**

**Instructor:** Dr. Marcie K. Davis

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**Phone:** 239-1426

**Location:** TBA

**Time:** TBA

**Course Content:** An overview of the basic concepts of algebra. Topics to be covered include: polynomials, linear and quadratic equations and inequalities, systems of equations, functions and their graphs, exponential and logarithmic functions, sequences and series.

**Course Goals and Learning Outcomes:** The aim of this course is to increase students' knowledge of and proficiency in a broad spectrum of algebraic concepts and skills. An additional aim of this course is to increase students' critical thinking skills and make them better problem solvers, particularly as they connect course content to real world applications.

**Instructional Methods:** Interactive lectures, discussions, group work, and online modeling and applications will all be used to facilitate student learning in this course.

**Text:** *College Algebra*, 7<sup>th</sup> edition, by Larson and Hostetler.

**Calculator:** A scientific calculator is required. A graphing utility is highly recommended.

**Boyce College Attendance Policy (see Boyce College catalog):**

Class attendance is required for Boyce College students. Attendance will be checked at each class session. A student who misses more than 25% of class meetings will forfeit credit for the class and receive a failing grade. Students are also expected to be in class on time. If a student is late to class three times it will count the same as an absence. If a student has a legitimate reason for missing class for an extended period of time (such as an illness or accident) it is the student's responsibility to notify the professor, **in a timely manner**, so that missed tests and assignments may be made up. Also, it is the student's responsibility to contact classmates to receive notes/announcements missed in class before the next class meeting.

**Classroom Policies:**

1. Male students are not to wear hats or facial jewelry in class. Women may wear earrings but no additional facial jewelry.

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2. No food or drinks are allowed in class, except water.
3. In order to ensure full class participation, any student with a disabling condition requiring special accommodations (e.g., tape recorders, special adaptive equipment, special note-taking or test-taking needs) is strongly encouraged to contact the professor at the beginning of the course.
4. For instructional purposes the professor may employ the use of film, readings, and outside guests, however, this use does not constitute an endorsement by Boyce College of these sources.

**Course Components (please be aware that the dates listed below, excluding the final exam, are subject to change):**

<u>Component</u>	<u>Date</u>	<u>Sections Covered</u>	<u>Points</u>
Exam #1	8-27	Prerequisites & Chapter 1	100
Exam #2	9-24	Chapter 2	100
Exam #3	10-22	Chapters 5 & 6	100
Final Exam	11-12	Above + Chapter 8	125
Homework/Quizzes			125
Project			50
<b>Total Points Possible</b>			<b>600</b>

**Grading Scale:** By keeping track of your scores, you can easily tally your final grade.

<u>Points</u>	<u>Grade</u>
540-600	A (90-100%)
480-539	B (80-89%)
420-479	C (70-79%)
360-419	D (60-69%)
359 & below	F (59% or below)

**Exams:** Exam problems will be very similar to homework/quiz problems, so it is important to keep up with your assignments. Only in the case of an excused absence with appropriate documentation **and** timely notification can missed exams be rescheduled. (Timely notification being prior to the exam day, or in the case of an emergency, as soon as you are able to call or email).

**Homework/Quizzes:** Homework problems will be assigned for each section covered. Homework is to be completed and brought to class when it is due, though it will not always be collected. When it is collected, you will receive full credit for at least attempting all of the problems. Homework may be turned in up to one week late for 80% of the original point value. Quizzes may be given periodically and will most likely be unannounced. Quiz problems will be extremely similar to those assigned for homework. Missed quizzes may not be made up, except as described in the absence policy.

**Project:** There will be one mandatory group project assigned worth 50 points. Details will be given at a later date.

**Extra Credit:** Extra credit problems are offered on the homework assignment sheet. You may also complete an extra credit biographical report on one of history's great mathematicians for an additional 15 points (see me for details if you choose this option). Please take advantage of these opportunities as they can significantly improve your grade.

**Additional Expectations: WORK HARD!** Most of you will need to spend 6 hours outside of class each week studying and doing homework. **SPEAK UP!** Please feel free to ask questions at any point during class lectures. **HAVE FUN!** (Yes, you read that correctly!) Math is not about memorizing formulas—it's about learning how to think.

**Course Schedule:**

Review of Prerequisites

- real number properties
- polynomials and factoring
- exponents and radicals

Chapter 1

- linear equations and their graphs
- quadratic equations and their graphs
- linear and other types of inequalities

Chapter 2

- functions and their graphs
- function transformations
- inverse functions

Chapter 5

- exponential functions and their graphs
- logarithmic functions and their graphs
- properties of logarithms

Chapter 6

- systems of linear equations
- systems of inequalities
- linear programming

Chapter 8

- general sequences and series
- arithmetic sequences and series
- geometric sequences and series

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