

MATH 1111 - College Algebra  
Section 19 and 37  
MWF 12:05-12:55  
302 Boyd  
**Hours Credit:** 3 hours  
**Prerequisites:** None

### **COURSE INSTRUCTOR**

**Instructor:** Dr Scott Sykes  
**Office:** 314 Boyd Building  
**Email:** [ssykes@westga.edu](mailto:ssykes@westga.edu)  
**Phone:** 678-839-4125

**OFFICE HOURS:** Mon, Wed, Fri 10:15-11:00 and Mon, Wed 3:30-5:00

### **REQUIRED COURSE MATERIALS**

**TEXT:** *College Algebra and Trigonometry, Abramson, Openstax*. Student can download for free at <https://openstax.org/details/books/algebra-and-trigonometry>. Students should use “Download a PDF”. There is a hard copy available at the bookstore for students that want a hard copy.

### **Courses Description**

This course is a functional approach to algebra that incorporates the use of technology. Emphasis will be placed on the study of functions, and their graphs, inequalities, and linear, quadratic, piece-wise defined, polynomial, rational, exponential and logarithmic functions. Appropriate applications will be included.

### **Learning Outcomes**

Students should be able to demonstrate:

1. Express relationships using the concept of a function and use verbal, numerical, graphical and symbolic means to analyze a function.
2. Model situations from a variety of settings by using polynomial, exponential and logarithmic functions.
3. Manipulate mathematical information, concepts, and thoughts in verbal, numeric, graphical and symbolic form while solving a variety of problems which involve polynomial, exponential or logarithmic functions.
4. Apply a variety of problem-solving strategies, including verbal, algebraic, numerical, and graphical techniques, to solve multiple-step problems involving polynomial, exponential, logarithmic equations and inequalities and systems of linear equations.
5. Shift among the verbal, numeric, graphical and symbolic modes in order to analyze functions.
6. Use appropriate technology in the evaluation, analysis and synthesis of information in problem-solving situations.

## **COURSE ASSESSMENT**

**HOMEWORK:** Homework will be assigned each day in class. Problems are to be turned in the following day for full credit. From each assignment, three problems will be chosen and graded. So, you will get a score of 0-3 for each assignment. One point will be deducted for each class day the assignment is late. At the end of the semester, you can add together all the assignment points and a MAXIMUM of 100 can count towards your overall grade. Your assignment must be neat and organized to be graded.

**TESTS:** There will be exams on the following dates:

- Friday, September 6
- Friday, September 27
- Friday, October 25
- Friday, November 22

Occasionally in class, points may be awarded for working problems. You must be in class that day to receive these points and they count towards the next test only.

**FINAL:** The final is on **Monday, December 9<sup>th</sup> from 11:00-1:00**. The final counts as two tests.

**GRADES:** At the end of the semester, you will have 7 grades (HW, 4 Tests and Final twice). You can drop the lowest of these 7 grades then add the other 6 together (NOTE: The final counts as 2 grades, you can only drop one of those two if it is your lowest score)

<u>POINTS</u>	<u>GRADE</u>
540-600	A
480-539	B
420-479	C
360-419	D
0-359	F

If you need to miss a test, you must talk to me before the test is given and get my permission. If you miss the test without permission, that will count as a 0!! **THERE WILL BE NO MAKE-UP EXAMS GIVEN - IF YOU HAVE PERMISSION TO MISS AN EXAM, YOUR FINAL EXAM SCORE WILL REPLACE THAT EXAM SCORE.**

**Any cases of academic dishonesty will result in an F for the course and referral based on university policy.**

**Disabilities Act/Accessibility for the Course**

If you are a student whom is disabled as defined under the Americans with Disabilities Act and require assistance or support services, please notify me and provide me with a copy of your packet from Student Services. The university will provide you with resources for any audio/visual needs that you may have with the learning management system or course content.

Please contact UWG Accessibility Services for more information.

For additional information about all your courses, go to

<https://www.westga.edu/UWGSyllabusPolicies/>

It contains important material pertaining to university policies and responsibilities. Because these statements are updated as federal, state, university, and accreditation standards change, you should review the information each semester.

If you ever have any questions or suggestions, feel free to come by my office at any time. I will definitely be there during my office hours, you can just stop by. You can also stop by or call to see if I am there at other times.

## COURSE OUTLINE

Section	Title
1.2	Exponents and Scientific Notation
1.3	Radicals and Rational Expressions
1.4	Polynomials
1.5	Factoring Polynomials
1.6	Rational Expressions
2.1	The Rectangular Coordinate System and Graphs
2.2	Linear Equations in One Variable
2.3	Models and Applications
2.4	Complex Numbers
2.5	Quadratic Equations
2.6	Other Types of Equations
2.7	Linear Inequalities and Absolute Value Inequalities
3.1	Functions and Function Notation
3.2	Domain and Range
3.3	Rates of Change and Behavior of Graphs
3.4	Composition of Functions
3.5	Transformation of Functions
3.7	Inverse Functions
4.1	Linear Functions
4.2	Modeling with Linear Functions
5.1	Quadratic Functions
5.2	Power Functions and Polynomial Graphs
5.3	Graphs of Polynomial Functions
5.4	Dividing Polynomials
5.5	Zeros of Polynomial Functions
6.1	Exponential Functions
6.2	Graphs of Exponential Functions
6.3	Logarithmic Functions
6.4	Graphs of Logarithmic Functions
6.5	Logarithmic Properties
6.6	Exponential and Logarithmic Equations
6.7	Exponential and Logarithmic Models
11.1	Systems of Linear Equations: Two Variables
11.2	Systems of Linear Equations: Three Variables

### **IMPORTANT DATES:**

**First Day of Class:**

Wednesday, August 14

**Drop Ends:**

Tuesday, August 20

**Last Day to Withdrawal with W:**

Wednesday, October 9

**Last Day of Class:**

Friday, December 6

**Final Exam Period:**

December 7-13 (see The Scoop for specific times)

**No classes:**

Monday, September 2 (Labor Day)

Thursday October 3 and Friday October 4 (Fall Break)

Monday November 25- Friday November 29 (Thanksgiving)