MATH 1111 - College Algebra

**Hours Credit:** 3 hours

**Prerequisites:** None

Math Department recommends a minimum ALEKS Placement score of 46 to be successful in the class.

**COURSE INSTRUCTOR**

Instructor: Eula S. Key
Office: 104A
Email: ekey@westga.edu
Phone: 678-372-9675

**OFFICE HOURS:** MW 2-3:20pm

**REQUIRED COURSE MATERIALS**

TEXT AND OTHER REQUIRED COURSE MATERIALS.

TEXT: *College Algebra and Trigonometry*, by Julie Miller and Donna Gerken (McGraw Hill Education)

ALEKS: All students in MATH 1111 are required to have an ALEKS Account. Go to www.aleks.com to purchase an account. The course code for this section is **YXMEH-KW3XK** (Section 08)

**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. An understanding of the equations of circles and lines
2. An understanding of functions and how to graph functions
3. An understanding of operations on functions including function composition
4. An understanding of polynomial graphs, including intercepts and end-behavior
5. An understanding of how to find the zeros of a polynomial and how to factor polynomials
6. An understanding of inverse functions and how to find them graphically and algebraically
7. An understanding of the properties of exponential and logarithmic equations
8. An understanding of how to solve exponential and logarithmic equations
9. An understanding of how to solve a system of equations
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<th>WEEK</th>
<th>Sections</th>
<th>NOTE</th>
<th>Learning Outcome</th>
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<td>1.1: Linear Equations and Rational Equations</td>
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<td>1.2: Applications with Linear and Rational Equations</td>
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<td>1.3: Complex Numbers</td>
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<td>1.4: Quadratic Equations</td>
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<td>1.5: Application of Quadratic Equations</td>
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<td>1.6: More Equations and Applications</td>
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<td>1.7: Linear, Compound and Absolute Value Inequalities</td>
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<td>4</td>
<td><strong>TEST 1</strong></td>
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<td>2.1: The Rectangular Coordinate System and Graphing Utilities</td>
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<td>2.2: Circles</td>
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<td>2.3: Functions and Relations</td>
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<td>2.4: Linear Equations in Two Variables and Linear Functions</td>
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<td>2.5: Applications of Linear Functions</td>
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<td>2.6: Transformations of Graphs</td>
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<td>7</td>
<td>2.7: Analyzing Graphs of Functions and Piecewise Defined Functions</td>
<td>Even/Odd, Symmetry, Increasing/Decreasing only</td>
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<td>2.8: Algebra of Functions</td>
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<td><strong>TEST 2</strong></td>
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<td>3.1: Quadratic Functions and Applications</td>
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<td>3.2: Introduction to Polynomial Functions</td>
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<td>3.3: Division of Polynomials and Factor and Remainder Theorem</td>
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<td>3.4: Zeros of Polynomials</td>
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<td>3.7: Variation</td>
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<td>4.1: Inverse Functions</td>
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<td>4.3: Logarithmic Functions</td>
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<td>4.4: Properties of Logarithms</td>
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<td>4.5: Exponential and Logarithmic Equations</td>
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<td><strong>TEST 4</strong></td>
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<td>9.2: Systems of Linear Equations in Three Variables and Applications</td>
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IMPORTANT DATES:

Add/Drop Ends: Sunday, August 14th
Last Day to Withdrawal with W: Friday, Sept 30th
Last Day of Class: Friday, December 2nd
Final Exam Period: December 7, 2-4pm

No classes: Monday, Sept 5th (Labor Day)
Thursday, Oct 6th and Friday, Oct 7th (Fall Break)
November 21st – 25th (Thanksgiving)

COURSE ASSESSMENT

NOTE to faculty: The final exam should account for 25% of the students’ grades. ALEKS should account for a minimum of 10% of the students’ grade.

Students’ mastery of course learning outcomes will be assessed using the following methods:

Test I, Test II, Test III, Test IV, Final, Quizzes, and Aleks Assignments

ASSESSMENT GRADING:

Test I: 100 Points September 9
Test II: 100 Points October 5
Test III: 100 Points October 24
Test IV: 100 Points November 16
Final: 200 Points December 7
Aleks: 100 Points
Quizzes:100 Points

Total: 800 Points Average is the percentage obtained

NOTE: Graphing calculators equivalent to the TI 83, 84, 85, and 86 will be allowed on the exam, as will scientific calculators. The TI-89 and other equivalent calculators will not be allowed. CALCULATORS CANNOT BE SHARED DURING TESTS AND QUIZZES!
90% - 100%: A
80% - 89%: B
70% - 79%: C
60% - 69%: D
<60%: F

OTHER COURSE INFORMATION

Missed Tests: Make-up tests will be given at the discretion of the teacher. For consideration of a make-up test, documentation (doctor's excuse, etc.) must be presented immediately upon returning to class. Make-up tests will be given outside of class hours and will be administered the week of finals.

Extra Credit: One point will be given for each hour of DOCUMENTED tutoring prior to each test. A total of 5 extra points for each test (except the final) may be earned by attending tutoring.

Final: It is a departmental final. If the final’s percentage is greater than any of the four 100-point tests or the quiz final average, the one lowest of these may be replaced with the final’s percentage.

Quizzes: Quizzes will be given for 10 minutes at the beginning of class. Usually 1-4 problems like homework problems are given. Quizzes CANNOT be made up if missed. Each quiz is a total of 10 points with bonuses at various times. From 8 to 11 quizzes will be given throughout the semester. 10 points less than the possible quiz total will be used to calculate the quiz average (which is a percentage).

Absences: Students are expected to attend class and arrive on time. Four tardies equal one absence. Students who leave class before dismissal by the instructor are given a tardy. (This includes students who return to class.) Any student who misses more than 5 days will receive an F for the class.

Cell Phones: Students are not allowed to use cell phones in class. Students using a cell phone during class will be given a tardy.

Tutoring: Math Lab: Boyd 205
          Center for Academic Success: 678-839-6280
          SI Sessions: TBA
COURSE POLICIES AND INFORMATION

University Policies and Academic Support
Please carefully review the following Common Language for all university course syllabi at the link:

http://www.westga.edu/assetsDept/vpaa/Common_Language_for_Course_Syllabi.pdf

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.

For important policy information, i.e., the UWG Honor Code, Email, and Credit Hour policies, as well as information on Academic Support and Online Courses, please review the information found in the Common Language for Course Syllabi documentation at http://www.westga.edu/assetsDept/vpaa/Common_Language_for_Course_Syllabi.pdf.

Academic Honesty
Students are expected to adhere to the policies of academic honesty as outlined by the university.

Definitions of academic dishonesty are defined in the student handbook:
www.westga.edu/handbook/

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.

Student Conduct
Students are expected to abide by the guidelines detailed in the university catalog.
Respect and courtesy are required of all students while in the classroom. The following is also mandatory:

Students should behave in a respectful manner that enables all students in the class to take advantage of the learning situation provided.