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.

Instructor: Robert Staples
Office: Boyd 106B
Email: rstaples@westga.edu
Phone: 678-839-4139

OFFICE HOURS: 10 to 11am MWF. Thursdays 8-12 and 1 to 4pm

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 MRDGM-EHWXG

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 equation
<table>
<thead>
<tr>
<th>WEEK</th>
<th>Sections</th>
<th>NOTE</th>
<th>Learning Outcome</th>
</tr>
</thead>
</table>
| 1    | 1.1: Linear Equations and Rational Equations  
      1.2: Applications with Linear and Rational Equations |      |                  |
| 2    | 1.3: Complex Numbers  
      1.4: Quadratic Equations  
      1.5: Application of Quadratic Equations |      |                  |
| 3    | 1.6: More Equations and Applications  
      1.7: Linear, Compound and Absolute Value Inequalities |      |                  |
| 4    | TEST 1  
      2.1: The Rectangular Coordinate System and Graphing Utilities | 1    |                  |
| 5    | 2.2: Circles  
      2.3: Functions and Relations | 2    |                  |
| 6    | 2.4: Linear Equations in Two Variables and Linear Functions  
      2.5: Applications of Linear Functions  
      2.6: Transformations of Graphs | 1    |                  |
| 7    | 2.7: Analyzing Graphs of Functions and Piecewise Defined Functions | Even/Odd, Symmetry, Increasing/Decreasing only | 2    |
| 8    | 2.8: Algebra of Functions | 3    |                  |
| 9    | TEST 2  
      3.1: Quadratic Functions and Applications  
      3.2: Introduction to Polynomial Functions | 4    |                  |
| 10   | 3.3: Division of Polynomials and Factor and Remainder Theorem | 4    |                  |
| 11   | 3.4: Zeros of Polynomials  
      3.7: Variation | 5    |                  |
| 12   | TEST 3  
      4.1: Inverse Functions | 6    |                  |
| 13   | 4.2: Exponential Functions  
      4.3: Logarithmic Functions | 7    |                  |
| 14   | 4.4: Properties of Logarithms  
      4.5: Exponential and Logarithmic Equations  
      4.6: Modeling with Exponential and Logarithmic Functions | 7    |                  |
| 15   | TEST 4  
      9.1: Systems of Linear Equations in Two Variables and Applications  
      9.2: Systems of Linear Equations in Three Variables and Applications | 9    |                  |
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 3-9 (see The Scoop for specific times)

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

COURSE ASSESSMENT

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

**Grading.** The work in Alex will count as 20% of your grade. Quizzes will count 15% and the Exams will count 40%. The final exam will count 25%. Grades will be updated frequently on CourseDen.

ASSESSMENT GRADING:

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.

**Grading Scale:**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90% - 100%</td>
<td>A</td>
</tr>
<tr>
<td>80% - 89%</td>
<td>B</td>
</tr>
<tr>
<td>70% - 79%</td>
<td>C</td>
</tr>
<tr>
<td>60% - 69%</td>
<td>D</td>
</tr>
<tr>
<td>&lt;60%</td>
<td>F</td>
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</tbody>
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OTHER COURSE INFORMATION

Attendance is encouraged. Students missing quizzes and test should expect a grade of zero. Very little extra credit will be provided so student who need this are advised to complete it. Students are urged to check in with CourseDen on a daily basis.

COURSE POLICIES AND INFORMATION

University Policies and Academic Honesty / Support
Please carefully review the following Common Language for all university course syllabi below.

Definitions of academic dishonesty are defined in the student handbook:
www.westga.edu/handbook/ 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/vpsa/Common_Language_for_Course_Syllabi.pdf
http://tinyurl.com/UWGSyllabusPolicies

Help Available: In addition to getting help during office hours students are encouraged to see the SI leader, visit the Math Tutor Center and make appt with the Success Center.

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 are expected to be respectful and show good character. Students disturbing or interfering with instruction will be asked to leave. Electronic devices are to be silence and used only for class activities.