MATH 1111- Section 6 - 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: Brian Brodsky
Office: 106 C Boyd Building
Email: BBrodsky@westga.edu: Please send all email correspondences to this email address (Please do not send email through CourseDen).
Phone: 678-839-5313

OFFICE HOURS
Monday and Wednesday: 2:30pm – 5pm
Tuesday: 9am – 12pm and 1pm – 2pm
Friday: 8am – 9am

REQUIRED COURSE MATERIALS

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

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
COURSE ASSESSMENT

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

Vocabulary Assignments: Vocabulary assignments will be due throughout the semester. Please see the attached Course Outline for the due dates of these assignments. Submissions past the due date will not be accepted for credit. Please see the content tab in CourseDen labeled “Vocabulary Assignment Guidelines” for guidelines concerning the completion and submission of these assignments.

Concept Map Assignments: Concept Map assignments will be due throughout the semester. Please see the attached Course Outline for the due dates of these assignments. Submissions past the due date will not be accepted for credit. Please see the content tab in CourseDen labeled “Concept Map Assignment Guidelines” for guidelines concerning the completion and submission of these assignments.

In-Class Activities/Participation: Throughout the semester, there will be in-class activities/participation projects that students will be required to submit for grades. Students must be present the day of the activity in order for their work to be accepted for credit.

Exams: In addition to the final exam, there will be 4 in-class exams. Please see the attached course outline for the dates of these exams. Students may be able to reschedule exams if they have informed the instructor at least one class meeting prior to the exam of their situation. Students will not be allowed to make up missed exams.

Final Exam: There will be no make-up Final Exam. Students needing accommodations for the final exam must notify the instructor at least one week prior to the scheduled exam date.

ASSESSMENT GRADING:

Exams: 56% of final grade (4 exams at 14% each)

Vocabulary Assignments, Concept Map Assignments, and In-Class Activities/Participation: 19% of final grade (every item in this category will be weighted evenly)

Final Exam: 25% of final grade

Grading Scale:
90% - 100%: A
80% - 89%: B
70% - 79%: C
60% - 69%: D
<60%: F
OTHER COURSE INFORMATION

Exam Replacement/Bonus Opportunity: Students will have the opportunity to replace their lowest exam score with a score earned through the completion of a collection of tasks throughout the semester. For descriptions of these tasks, and the guidelines for completing them, please see the content tab in CourseDen labeled “Exam Replacement Guidelines.”

Calculators: 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.

CourseDen: Course materials will be posted on CourseDen. Please check CourseDen often for updates. You may log in to CourseDen at www.westga.edu or http://webct.westga.edu. If you are having problems logging into CourseDen, please go to http://uwgonline.westga.edu/students.php or call 678-839-6248

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.

Academic Honesty
You are expected to achieve and maintain the highest standards of academic honesty and excellence as described in the Undergraduate Catalog. In short, be responsible and do your own work. 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:

**COURSE OUTLINE**

### January

<table>
<thead>
<tr>
<th>Monday</th>
<th>Wednesday</th>
<th>Friday</th>
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<tbody>
<tr>
<td>16: No class MLK day</td>
<td>18: 1.1 Linear Equations and Rational Equations</td>
<td>20: Applications of Linear and Rational Equations Vocabulary Assignment 1 due by start of class.</td>
</tr>
<tr>
<td>23: 1.3 Complex Numbers</td>
<td>25: 1.4 Quadratic Equations</td>
<td>27: 1.5 Applications of Quadratic Equations</td>
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<td>30: 1.6 More Equations and Applications</td>
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**February**

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<thead>
<tr>
<th>Monday</th>
<th>Wednesday</th>
<th>Friday</th>
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<tbody>
<tr>
<td>06: Review for Exam 1</td>
<td>08: Exam 1</td>
<td>10: 2.1 The Rectangular Coordinate System</td>
</tr>
<tr>
<td>13: 2.2 Circles</td>
<td>15: 2.3 Functions and Relations</td>
<td>17: 2.4 Linear Equations in Two Variables and Linear Functions Vocabulary Assignment 2 Due by start of class.</td>
</tr>
<tr>
<td>20: 2.5 Applications of Linear Equations and Modeling</td>
<td>22: 2.6 Transformations of Graphs</td>
<td>24: 2.7 Analyzing Graphs of Functions Concept Map Assignment 2 due by start of class.</td>
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<td>27: 2.8 Algebra of Functions and Function Composition</td>
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## March

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<tr>
<th>Monday</th>
<th>Wednesday</th>
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<tbody>
<tr>
<td>01: Review for Exam 2</td>
<td>03: Exam 2</td>
<td>10: 3.3 Division of Polynomial Functions</td>
</tr>
<tr>
<td>06: 3.1 Quadratic Functions and Applications</td>
<td>08: 3.2 Introduction to Polynomial Functions</td>
<td>17: 3.7 Variation Vocabulary Assignment 3 due by start of class</td>
</tr>
<tr>
<td>13: 3.3 Division of Polynomials</td>
<td>15: 3.4 Zeroes of Polynomials</td>
<td>29: 9.2 Systems of Equations in 3 Variables</td>
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## April

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<thead>
<tr>
<th>Monday</th>
<th>Wednesday</th>
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<tr>
<td>03: Exam 3</td>
<td>05: 4.1 Inverse Functions</td>
<td>07: 4.2 Exponential Functions</td>
</tr>
<tr>
<td>10: 4.3 Logarithmic Functions</td>
<td>12: 4.4 Properties of Logarithms</td>
<td>14: 4.5 Exponential and Logarithmic Equations Concept Map Assignment 3 due by start of class</td>
</tr>
<tr>
<td>17: 4.5 Exponential and Logarithmic Equations</td>
<td>19: 4.6 Modeling with Exponential and Logarithmic Functions</td>
<td>21: 4.6 Modeling with Exponential and Logarithmic Functions</td>
</tr>
<tr>
<td>24: Review for Exam 4</td>
<td>26: Exam 4</td>
<td>28: Review for Final Exam</td>
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<td>May 1st: Review for Final Exam</td>
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**IMPORTANT DATES:**

- **Drop Ends:** Wednesday, January 11th
- **Last Day to Withdrawal with W:** Thursday, March 2nd
- **Last Day of Class:** Monday, May 1
- **Final Exam Period:**
  - Wednesday May 3rd, 11:00am – 1:00pm
  - Monday, January 16th (MLK Day)
- **No classes:**
  - March 20th-24th (Spring Break)