Instructor: Mr. Ricky Johnson  
Office: 106D Boyd Bldg., 1st Floor  
E-mail: rjohnson@westga.edu  
Office Hours: Tu/Th 11:00-12:15; Tu/Th 3:30-4:45, or by appt  

Prerequisites: A grade of C or better in MATH 1111 or an SAT Math score of at least 500 or an ACT Math score of at least 20.  

Course Description: This course is designed to prepare students for calculus, physics and related technical subjects. Topics include an intensive study of algebraic and transcendental functions.  

Text: College Algebra and Trigonometry, Abramson, Openstax. Student can download for free at https://openstax.org/details/books/algebra-and-trigonometry. Students should go to “Download a PDF” and download the High Resolution version.  

CourseDen: I will be using it to post announcements, lecture notes, grades, and solutions to tests and in-class quizzes. Please do not use courseDen to email me, use rjohnson@westga.edu instead. In addition, I have helpful videos and practice problems (not to be turned in) on courseDen as well.  

Calculator: A graphing calculator equivalent to the TI-83, 84, 85, and 86 is recommended for tests and homework. Scientific calculators are also acceptable. Cell phone calculators, the TI-89 and other equivalent calculators will not be permitted during tests.  

Learning Outcomes: Students will be able to demonstrate:  
1. An understanding of functions and how to graph functions  
2. An understanding of operations on functions including function composition  
3. An understanding of types of functions.  
4. An understanding of rational functions and their graphs, including intercepts and asymptotes  
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 find the values of the trigonometric functions from right triangles and circles  
10. An understanding of how to graph the trigonometric functions  
11. An understanding of how to prove trigonometric identities  
12. An understanding of how to use the sum, difference, double-angle and half-angle formulas for sine and cosine  
13. An understanding of how to solve trig equations  
14. An understanding of how to solve triangle using the law of sines and law of cosines  
15. An understanding of polar coordinates and graphs  
16. An understanding of how to analyze and solve applied problems  

MyOpenMath: 10% of overall grade. All students are required to create an account at www.myopenmath.com. It costs nothing. When registering, use the course ID: 51925 and enrollment key: rej62019. Your total MyOpenMath score is comprised of homework (50%), quizzes (50%). All assignments due at midnight on the specified due dates. There are bonus problems for bonus points as well.  

MyOpenMath Homework: Usually due on Sundays (this may vary). 3 attempts for each problem. By clicking “Try another similar problem” your 3 attempts start over. After the due dates, scores cannot be changed, but you can still work the problems for practice. Note, many of the problems have a video link if you need extra help. The lowest 4 homework scores will be dropped.
MyOpenMath Quizzes: Usually due on Mondays (this may vary). 2 attempts per problem (30% penalty after 1st attempt). Note, once a quiz is started you will have a limited amount of time to complete it – usually about 3 hours. The lowest 2 quiz scores will be dropped. Note, if you log out, the timer keeps going. Quizzes become available to take 3 days before they are due.

MyOpenMath Bonus Problems: Usually due on Mondays (this may vary). 1 bonus point per problem. Only 1 attempt per problem.

MyOpenMath LatePasses: No extensions will be granted for any reason on any assignment in MyOpenMath. However, you will be granted 6 LatePasses that can be used to extend the due date of a homework or a quiz (but not for bonus problems) by 72 hours (3 days). You may only use 1 LatePass per homework (or quiz). After 72 hours past the due date, a LatePass cannot be used. **Note, if you attempt to access the assignment or quiz after the due date before applying the LatePass, the LatePass will not work. Apply the LatePass first, THEN access the assignment or quiz!**

In-class Quizzes: 10% of overall grade. 9-12 in-class quizzes (usually on Fridays but may vary). 2-3 problems which you will have 15-20 minutes to complete. You may work together in groups to solve these problems. When done, you will be given 5 minutes to solve 1 additional problem to work on individually. Sometimes the quiz problems may be over topics we have not covered in class. In that case, I will ask you to watch a video or read a passage from the text or other posted notes. **No make-up quizzes for any reason**, but the lowest 2 scores will be dropped.

Tests: 4 in-class tests. 48% of overall grade. **NO make-up tests will be scheduled for any reason.** However, at the end of the semester you may have your lowest test score replaced with the score you receive on the final exam if higher (this includes a missed test). You may also use the “test retake” option as described below.

Test Retakes: At the end of the semester you can retake one of the first 3 tests. Test retake day will be during the last week of class on Tuesday, Dec 3. You may also use this option if you missed a test. This option is NOT available to use for Test #4 nor the Final Exam.

Final Exam: Thursday, Dec 12, 8:00-10:00 am. 25% of overall grade. The Final Exam is cumulative and mandatory. It cannot be rescheduled or made-up for ANY reason.

CMI (Complimentary Math Instruction): An optional peer-led group (10-12 students) tutoring program. Students sign up to meet 1 hour per week for additional help with precalculus/math concepts. Students can also sign up for smaller groups of 3-4 for more personalized instruction. I will be signing up any interested students during our student-instructor meetings.

Student-Instructor Meeting: 3% of overall grade. Purpose: to discuss the results of the Diagnostic Prequiz, discuss the possibility of tutoring (including the CMI program), or any concerns you may have regarding the course. I’ll be sending out email invitations to set up the appts, but you can also come by my office anytime during my office hours without an appt. Deadline for meeting: Friday, Sept 27.

Study Journal: 4% of overall grade. You will be recording/tracking the time you spend studying precalculus and answer a few questions related to your studying. 10 pts/weekly submission (submitted electronically) for a max of 120 pts. You are **NOT** being graded on the content of your entries or how you respond to the survey questions. If a weekly submission contains at least 1 daily journal entry, you will receive the full 10 points. For more details and how to submit, see “**Study Journal**” in courseDen.

Attendance: If you miss a class, you are still responsible for all material you may have missed. Refer to courseDen for lecture notes and announcements. **There will be NO make-ups scheduled for missing a test, in-class quiz, or the Final Exam.** However, you may use the “test retake” option if you miss one of the first 3 tests.
Disabilities: If you have a documented disability (via UWG’s Accessibility Services) you’ll be given all reasonable accommodations, need to send me the SAR report. Adjustments needed in relation to test-taking must be brought to the instructor's attention well in advance of the test (at least one week prior).

Bonus Points: You will be able to earn up to a maximum of approx. 350 bonus points throughout the semester. The bonus points will be worth 4% added to your overall test average. There are several ways to earn bonus points:

1. Up to 30 points may be earned by going to the Math Tutoring Center (Boyd– room 205). 2 points for every day you visit the MTC (you must have stayed for at least 30 minutes) and received help from a tutor. You must turn in a completed verification form to me by Thursday, Dec 5, 2019 (form is on courseDen).

2. Up to 60 points (combined) by attending tutoring sessions at (3 pts for each 1-hour session):
   a) The Center for Academic Success (Room 200 of the University Community Center) – must turn in the green verification cards they give you to me.
   b) CMI: Complimentary Math Instruction Program.


Example: The student’s test average from all 4 in-class tests is 89. Student earns 175 bonus points out of a maximum of 350 bonus points. Therefore, since (175/350) * 4 = 2, student earns a 2% bonus. Student’s test average is now 91.

Grading Policy: Final grade will be based on the following scale:
(A=90-100%, B=80-<90%, C=70-<80%, D=60-<70%, F=<60).

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>4 Tests (12% each; test dates subject to change)</td>
<td>48% (includes +4% bonus)</td>
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<tr>
<td>Test 1 Tuesday, September 10</td>
<td></td>
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<tr>
<td>Test 2 Tuesday, October 1</td>
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<td>Test 3 Tuesday, October 29</td>
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<td>Test 4 Thursday, December 5</td>
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<tr>
<td>Student-Instructor Meeting (by Sept 27)</td>
<td>3%</td>
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<tr>
<td>Study Journal</td>
<td>4%</td>
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<tr>
<td>MyOpenMath Total Score</td>
<td>10%</td>
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<tr>
<td>9-12 In-class Quizzes</td>
<td>10%</td>
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<tr>
<td>Final Exam (Comprehensive) Thurs, Dec 12, 8-10:00 am</td>
<td>25%</td>
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<tr>
<td>Total</td>
<td>100%</td>
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Other Course Policies:
1. Cell phones should be set to an inaudible setting or turned off.
2. All electronic correspondence between student and instructor should be by way of your UWG email account – otherwise I will not respond.
3. Arriving late and leaving early is discouraged as it is distracting and disrespectful.
4. Additional course policies:
   http://www.westga.edu/assetsDept/vpaa/Common_Language_for_Course_Syllabi.pdf

IMPORTANT DATES:

First Day of Class: Thursday, August 15
Drop Ends: Tuesday, August 20
Last Day to Withdraw with W: Wednesday, October 9
Last Day of Class: Friday, December 6
Final Exam: Thursday, December 12, 8:00-10:00 am
No Classes: Monday, September 2 (Labor Day)
            Thursday, October 3 – Friday, October 4 (Fall Break)
            Mon, November 25- Fri, November 29 (Thanksgiving Break)
<table>
<thead>
<tr>
<th>Week</th>
<th>Week beginning Mon:</th>
<th>Sections (from the textbook) to be covered during the week:</th>
</tr>
</thead>
</table>
| 1     | 8/12/2019           | Introduction and Diagnostic Assessment  
|       |                     | Ch 1/Ch 2: Algebra Review                                                                                                           |
| 2     | 8/19/2019           | Ch 1/Ch 2: Algebra Review  
3.1: Functions and Function Notation  
3.2: Domain and Range  
3.3: Rates of Change and Behavior of Graphs                                                                                             |
| 3     | 8/26/2019           | 3.4: Composition of Functions  
3.5: Transformation of Functions  
4.1: Linear Functions  
5.1: Quadratic Functions                                                                                                                  |
| 4     | 9/2/2019            | 5.2: Polynomial Functions  
5.3: Graphs of Polynomial Functions  
5.6: Rational Function  
3.7: Inverse Functions                                                                                                               |
| 5     | 9/9/2019            | Test 1 --- Tuesday, 9/10/2019  
6.1: Exponential Functions  
6.2: Graphs of Exponential Function                                                                                                       |
| 6     | 9/16/2019           | 6.3: Logarithmic Functions  
6.4: Graphs of Logarithmic Functions  
6.5: Logarithmic Properties  
6.6: Exponential and Logarithmic Equations                                                                                               |
| 7     | 9/23/2019           | 6.7: Exponential and Logarithmic Models  
7.1: Angles                                                                                                                                     |
| 8     | 9/30/2019           | Test 2 --- Tuesday, 10/1/2019  
FALL BREAK NO CLASSES 10/3 – 10/4                                                                                                          |
| 9     | 10/7/2019           | 7.1: Angles  
7.2: Right Triangle Trigonometry  
7.3: Unit Circle                                                                                                                                  |
| 10    | 10/14/2019          | 7.4: Other Trigonometric Functions  
8.1: Graphs of the Sine and Cosine Functions  
8.2: Graphs of Other Trigonometric Functions                                                                                               |
| 11    | 10/21/2019          | 8.3: Inverse Trigonometric Functions  
9.1: Using the Fundamental Identities  
9.2: Sum and Difference Formulas                                                                                                            |
| 12    | 10/28/2019          | Test 3 --- Tuesday, 10/29/2019  
9.3: Double-Angle, Half-Angle and Reduction Formulas  
9.4: Product-to-Sum, Sum-to-Product Formulas  
9.5: Solving Trigonometric Equations                                                                                                       |
| 13    | 11/4/2019           | 9.5: Solving Trigonometric Equations  
10.1: Non-Right Triangle: Law of Sines                                                                                                          |
10.3: Polar Coordinates                                                                                                                      |
| 15    | 11/18/2019          | 10.4: Polar Coordinates: Graphs                                                                                                                                                    |
| 17    | 12/2/2019           | Optional Test Retakes – Tuesday, 12/3/2019  
Test 4 --- Thursday, 12/5/2019  
Review for the Final Exam – Friday, 12/6/2019                                                                                           |
| 18    |                     | Final Exam – Thursday, Dec 12, 8:00-10:00 am (covers All sections)                                                                                                                                                                       |