MATH 1111 - College Algebra

Hours Credit: 3 hours
Prerequisites: None

COURSE INSTRUCTOR
Instructor: Wesley Gay
Office: Boyd 111 B
Email: wgay@westga.edu
Phone: 678-839-3108

OFFICE HOURS: Tuesday and Thursday 12:30 – 1:30 & 3:30 to 5:00

A note on e-mails: Keep a check on your UWG e-mail and ACTUALLY READ THE E-MAILS. This is where I will most often send study guides, announce test dates, let you know if I will have cancelled office hours, or have moved my office hours for some reason, etc.

When contacting me, try to use correct English. Let me know what class you are in and lay out exactly what you would like help with or want to know.

Example of a good e-mail:

Mr. Gay,

My name is Ray Comfort and I am in your 11:00 to 12:15 class that meets on Tuesdays and Thursdays. I missed the first day of class and wanted to know if there was an assignment given that I should be working on or an announcement made that I need to know about?

Sincerely,
Ray Comfort

REQUIRED COURSE MATERIALS
TEXT: College Algebra and Trigonometry, Abramson, Openstax. This text may be downloaded at no cost to you by going to: https://openstax.org/details/books/algebra-and-trigonometry
Students should go to “Download a PDF” and download the High Resolution version.

HOMEWORK PLATFORM: You need a “My Open Math” account. I will refer to this as M.O.M or MOM for short. This is also provided at no cost to you and can be set up by going to: www.myopenmath.com
Course ID: Enrollment Key:
Some suggestions:
• For your username use the format: LastName_FirstName_SomeNumber (Try different #’s if the one you chose is taken already) If you already have an account, then feel free to go ahead and use it.
Example: Comfort_Ray_55
- Make sure you save your password somewhere safe in case you forget it
- Use your West Georgia E-mail when making this account

You will also need paper, pencils, and a pack of 5 scantrons. You may use a calculator so long as it does not have a computer algebra system. So, the TI-89 is off limits as is any equivalent or superior calculator regardless of brand.

**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.

Basically this course checks to see if you can do algebra at a High School level and you will receive college math credit if you can. Since nearly everyone entering this course graduated from high school or has a GED you would think that that this course would have a very low DWF rate. However this course has a DWF rate typically from 35% to 45%. So about 4 out of every 10 students in here will probably fall into that category.

**IMPORTANT DATES:**
- **First Day of Class:** Tuesday, January 7th
- **Drop/Add Ends:** Friday, January 10th
- **Withdrawal with W:** Saturday, January 11th to Friday, February 28th
- **Last Day of Class:** Thursday, April 23rd
- **Final Exam Period:** See “the scoop” on the UWG website
- **No classes:**
  - Tuesday, March 17th (Saint Patrick’s Day)
  - Thursday, March 19th (First Day of Spring)

**COURSE ASSESSMENT**
Students’ mastery of course learning outcomes listed on the last page will be assessed via tests, possible pop-quizzes, homework, in-class discussion, and a comprehensive final exam.

**Test:** There will be 4 multiple choice test with 25 to 35 questions each giving you 2 to 3 minutes per question. You will need a scantron, No. 2 pencil, and possibly a calculator for each test.

**Pop-quiz:** These will be over things presented in class that you have had an opportunity to practice, like turned in homework assignments. Pop-quizzes could also be over the syllabus and questions about the syllabus may appear on any test. These may be given at any time and without notice.

**Homework:** Over the course of the semester you will be asked to complete about 500 homework problems. The due dates are laid out in the calendar for the whole semester already. These dates may change, so check them regularly. To get credit, assignments must be turned in on time. I will not accept any late work. So do not procrastinate. Make it your goal to turn in things early. This program tends to glitch up a few times each semester. This is another reason to get assignments done early. We deal with the glitches because it is “free”. You may get help from anyone and anything you like. *Your goal should be to understand the material in order to perform well on the tests.* Counting the final exam, 85% of your grade will be from tests. If you simply use an app to answer the
problems or a friend to do the work for you then you may have a great homework grade, but without a decent performance on the tests you will still not pass this class.

**In-class discussion:** This is not graded, but helps me identify where issues exist. I like good healthy respectful dialog in class. If the class does not participate by asking questions or answering questions that I ask, then I assume that the class is bored and I need to move through the material at a greater rate of speed.

**Comprehensive final:** The exam for this course will be made by the department and not me personally. Generally students are given 120 minutes to complete a 40 question multiple-choice test. You will need a scantron, No. 2 pencil, and possibly a calculator.

**ASSESSMENT GRADING:**
Tests (60%) {4 test, 15% each} **I aim to give one week of advance notice for each test.**
My Open Math (MOM) and any pop-quizzes (15%)
Final examination (25%)

**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>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>89.5% &lt;= x</td>
<td>A – proficient at high school level algebra</td>
</tr>
<tr>
<td>79.5% &lt;= x &lt; 89.5%</td>
<td>B – good at high school level algebra</td>
</tr>
<tr>
<td>69.5% &lt;= x &lt; 79.5%</td>
<td>C – average at high school level algebra</td>
</tr>
<tr>
<td>59.5% &lt;= x &lt; 69.5%</td>
<td>D – not good with high school algebra, not ready for college math</td>
</tr>
<tr>
<td>x &lt; 59.5%</td>
<td>F – can’t do high school level algebra.</td>
</tr>
</tbody>
</table>

After each test, I plan to send out an email with the test results. This email lets you see how you did compared to all my other current college algebra students. I usually have test graded and in course den in 2 days or less and hand them back for your examination at the end of the next class.

I plan to put all your grades in course den. I will not put your homework/MOM grade in, until all assignment due dates have passed. After the final exam grade is in, I will release your overall class grade. You can tell what will be on your transcript using the scale above. **All grades are final. I do not change grades. So, do not ask.** If you wind up with a 69.499, then you missed a “C” by a thousandth of a point. We will all play by the same rules and no one gets special treatment.

**OTHER COURSE INFORMATION**

**Attendance Policy:** Attendance is encouraged, but not required. If you believe you can get the grade you want simply by doing the homework and showing up to take the test, you are free to do so. However, there is something to be said about being faithfully on time and on task until quitting time. Each day you show up before I call roll and remain on task until dismissed I will give you half a point. We have 30 class meetings so that is 15 possible bonus points. These points will be added to each test or MOM as we progress through the semester.
If you do not want to be on task, then DO NOT COME TO CLASS.

To be on task:

(1) No cell phones, laptops, or earbuds: You may check the time, but anything more than that and I will either ask you to leave or take your phone up until the end of class. You need to leave the room to make phone calls or text. There may be times where I allow you to work on homework, study guides, or other things in class. So feel free to bring these devices, but I don’t want them out until I have given permission for them to be used in class.

(2) No whining or complaining

(3) No foul or offensive language, this includes religiously offensive language such as taking the name God or Jesus name in vain.

(4) No sleeping

(5) No interrupting the educational environment

Depending on the nature and number of infractions consequences will range from a warning or loss of points up to administrative withdrawal.

Testing Policy: I will provide you with scratch paper. You need a scantron, pencil, and a “legal” calculator. Not having these materials will result in a loss of some points. If you need to leave before completing your test then you need to place your cell phone on my desk before leaving. You can pick it back up when you turn your test in. I may do random desk or calculator checks. If you have formulas written on your desk, calculator, or near by wall then you should erase them before the test starts. Else, I will assume you wrote them and are cheating.

Make-up Policy: I will not be giving any make-up exams. However, you may take a test early if we can arrange a mutually agreeable time. Pop-quizzes if given can’t be made up. No late homework will be accepted.

Bonus points and other helps: Life happens. At the worst time one is apt to have a flat tire, a dead battery, sickness, a sleepless night, etc. I understand this and thus will allow your final exam to replace your lowest test grade at the end of the semester. So, if you miss one test, then your grade on the final will replace that zero. This does not count for the homework. You know about those assignments days and weeks ahead of time and can get outside help to complete them. I may at any time do something for bonus points. This something may be announced or unannounced and only those present will be eligible.

Cheating policy: If you are caught cheating on any assignment the possible consequences are any combination of the following at my discretion:

(1) Forfeiting all bonus points and scales that are given. This penalty may be applied retroactively to include previous assignments.

(2) Losing the ability for the final to replace your lowest test grade.

(3) Reduced grade on the assignment, zero on the assignment, or zero for the entire course.
Referral to the office of community standards so that the offense may be put on your record and the university can take extra punitive steps if needed.

**Academic Honesty**
More definitions of academic dishonesty are defined in the student handbook:
[www.westga.edu/handbook/](http://www.westga.edu/handbook/)
You are responsible for knowing these.

**COURSE POLICIES AND INFORMATION**

**University Policies and Academic Support**
Please carefully review the following Common Language for all university course syllabi at the link:
[https://www.westga.edu/UWGSyllabusPolicies/](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.

**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 and this syllabus. Respect and courtesy are required of all students while in the classroom.

**COURSE OUTLINE**

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2</td>
<td>Exponents and Scientific Notation</td>
</tr>
<tr>
<td>1.3</td>
<td>Radicals and Rational Expressions</td>
</tr>
<tr>
<td>1.4</td>
<td>Polynomials</td>
</tr>
<tr>
<td>1.5</td>
<td>Factoring Polynomials</td>
</tr>
<tr>
<td>1.6</td>
<td>Rational Expressions</td>
</tr>
<tr>
<td>2.1</td>
<td>The Rectangular Coordinate System and Graphs</td>
</tr>
<tr>
<td>2.2</td>
<td>Linear Equations in One Variable</td>
</tr>
<tr>
<td>2.3</td>
<td>Models and Applications</td>
</tr>
<tr>
<td>2.4</td>
<td>Complex Numbers</td>
</tr>
<tr>
<td>2.5</td>
<td>Quadratic Equations</td>
</tr>
<tr>
<td>2.6</td>
<td>Other Types of Equations</td>
</tr>
<tr>
<td>2.7</td>
<td>Linear Inequalities and Absolute Value Inequalities</td>
</tr>
<tr>
<td>3.1</td>
<td>Functions and Function Notation</td>
</tr>
<tr>
<td>3.2</td>
<td>Domain and Range</td>
</tr>
<tr>
<td>3.3</td>
<td>Rates of Change and Behavior of Graphs</td>
</tr>
<tr>
<td>3.4</td>
<td>Composition of Functions</td>
</tr>
<tr>
<td>3.5</td>
<td>Transformation of Functions</td>
</tr>
<tr>
<td>3.7</td>
<td>Inverse Functions</td>
</tr>
<tr>
<td>4.1</td>
<td>Linear Functions</td>
</tr>
</tbody>
</table>
### 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.

In addition, since this course satisfies Area A2 of the Core, upon successful completion of the course:

- Students demonstrate a strong foundation in “college-level” mathematical concepts and principles.
- Students demonstrate the ability to apply symbolic representations to model and solve real-world problems.