Instructor: Mr. Geoff Clement
Office: Russell Hall, Room 205
Office Hours: M-R 8-9 and 12:30-2, and other times by appointment
Other Tutoring: Student Success Center (Student Center, 2nd floor, above Bookstore)
Phone: 678-359-5820 or 359-5826 (MPS Division Office)
E-mail: gclement@gordonstate.edu
Website: http://www.gordonstate.edu/faculty/gclement/
PREREQUISITE: Exemption from or Completion of Learning Support Mathematics
CREDIT: 3 semester Credit Hours
CALCULATOR: TI-83/84 or Higher (or Equivalent) Recommended

Course Details: TR 3:30 – 4:45 pm Math 1111-I4 CRN 963 IC #322

My Math Lab website: http://pearsonmylabandmastering.com
My Math Lab Course ID: clement97534
My Math Lab Technical Support: 1-800-677-6337

Both the textbook and the My Math Lab software are required for this course.

Note: This is a tentative syllabus and may be changed by the instructor at any time.

Welcome to Math 1111, and, for some of you, welcome to college! Do not expect this class or college to be just like high school. In college you are embarking on a career. Not only are you here to prepare for a career in the future, but college is now your job. To perform well, you need to make college your priority. Here you will be treated as an adult who has selected this class as your job. As with a job, you will be required to perform at a high level to keep your job. This will include attendance and quality of work. You wouldn’t walk into your boss's office on the first day and say “Hey! I'm so and so, and I'm going to enjoy working here; however, I need to let you know up front that I'll be missing many of my work days, I will complete many of my duties late, and my overall job effort will be average or below”.

College is not simply taking a few courses to get a diploma. College is not a trade school where you will take courses that only pertain to the career that you wish to pursue. College is an experience that is designed to teach you to think, to broaden your understanding of the world, and to give you the skills to grow and improve yourself for the rest of your life. You need to leave your preconceptions of this class, college, and yourself behind. Through your experience in college and this class, you can grow beyond who you have been and who you have limited yourself to be. Your growth and your success in this class and in college will depend less upon your natural gifts or talents and more upon your willingness to change, grow, apply, and, above all, work.

Do your best! Rise to the challenge! Live and learn!

COURSE DESCRIPTION

This course will cover a variety of topics in algebra, selected from Chapters 1, 2, 3, 4, 5, 6, and 12. The topics covered include the set of real numbers, equations and inequalities, functions and graphs, systems of equations,
polynomial functions, exponential and logarithmic functions. MATH 1111 does not fulfill the Core Curriculum Area A requirement for science majors. MATH 1111 will count in Area B for science majors. MATH 1113 (Pre-Calculus) is the course that fulfills the Core Curriculum Area A requirement for science majors.

This course will emphasize student preparation, critical thinking, and problem solving. To do well in the course, you must read the assignment ahead of time and prepare questions, do problems from the text, and prepare for test by reviewing those problems worked in class and at home. Over the course of the semester, you should devote about two hours of outside work for each hour in class. College Algebra demands your time and effort! First, study the examples worked in class as well as those in the textbook, then practice, practice, practice problems. And then practice some more!

This course, as many other courses, will emphasize the written communication of ideas to others. In this course, you will be communicating mathematical ideas. Just as it is important in an English course to use the proper format in your essays and term papers, it is important to use proper form when communicating mathematical ideas. You will learn how to write mathematics so that it can be understood by others. You should carefully study how mathematics is written in class as well as how it is written in the textbook. You should pattern your writing after these sources.

COURSE OBJECTIVES

This objective is directed toward the following general education expected outcome of the college:

Mathematical Skills: Students will demonstrate a basic knowledge of the fundamentals of college-level mathematics.

Upon completion of College Algebra, students should have an understanding and be able to demonstrate their knowledge of:

1. Solving linear, quadratic, rational, radical, and absolute value equations and their applications.
2. Solving linear, quadratic, rational, radical, and absolute value inequalities and their applications.
3. The rectangular coordinate system and graphing equations in two variables.
4. Finding equations of, and graphing, lines and circles and their applications.
5. Fundamental concepts of functions, including composition of functions and inverse functions, and their application as mathematical models.
6. Fundamental properties of polynomials, the factor and remainder theorems, and the number of real zeros of a polynomial.
7. Direct and inverse variation and applications.
8. Solving systems of linear equations in two or three variables and applications.
9. The properties of exponential and logarithmic functions and their application to compound interest.
10. Solving exponential and logarithmic equations.

METHOD OF EVALUATION

1. Tests – 60%. There will be four unit tests. Make-ups will be given only when your instructor excuses your absence. If you miss one test, this grade may be filled with your Final Exam score.

   Comprehensive Final Exam – This comprehensive exam is multiple choice format and may also replace the lowest unit test.

   Extra time will not be given to complete tests, unless documentation is on file with the college specifying this requirement.

2. Quizzes/Projects/Journal Entries/Attendance – 20%. All daily assignments are due during class with a
20% penalty for assignments coming in late on the same day and a 0 for all missed deadlines.

3. **My Math Lab Homework**– 20%. Purchase the access code before the end of the first week of class! All deadlines are class time on the day of the test. Don’t let things “snowball”.

**Office Hour Procedures**

When you come to my office for help, please be prepared by doing the following.

1. Bring your textbook, your calculator, and your class notes.
2. Make sure you have read the section in the text, read the class notes, and studied the examples.
3. Be prepared to show me at least two odd-numbered problems from the section that you have worked.
4. Bring your incomplete or incorrect solution to each problem about which you have a question.
5. Ask for help as early as possible. **Don’t wait until the day of a test.**

**Other Information**

A. **Attendance:** Attendance at class is important. I will take attendance by using an attendance sheet. Students are responsible for every instruction, every change in the syllabus, and all material covered in class whether or not they are present. *Students who enroll in the course late are responsible for material covered before they enrolled.*

B. **Working Problems:** Most students will benefit by working *many, many* problems for practice. On the Tentative Course Outline is a list of suggested problems for each section covered. These are intended to give the student practice in specific concepts that are taught in class. The problems will generally not be graded. However, I strongly encourage you to work them to better prepare for the tests. I will typically use the first few minutes of class to answer any questions about the homework problems. Math is not a spectator sport!

C. **Group Work:** Feel free to work together on homework, but make it your goal to understand the material and develop the skills that we are modeling in class.

D. **Academic Honesty:** Each student must do his or her own work on each assignment without any assistance from any outside source. The penalty in our class is a 0 on the assignment and a report to our school MPS department chair. The student handbook details school policies on academic honesty.

E. **Accommodations for Students with Disabilities:** Gordon State College is committed to making reasonable efforts to assist individuals with disabilities in their efforts to access a high quality post-secondary education. Gordon State College will provide reasonable accommodations for persons with documented qualifying disabilities in accordance with the policies of the University System of Georgia and Gordon State College. If you have a disability and feel you need accommodations in this course, you must present a current letter to me from Accessibility Services, indicating the existence of a disability and the approved accommodations. To register a disability contact Accessibility Services, Student Center, Room 212, 678-359-5585.

F. **Gordon E-mail:** Your Gordon e-mail address is where *all* official communication from Gordon College is sent. This includes registration information, etc. Please check your Gordon e-mail account periodically for important information. You should also delete junk e-mail to keep your mailbox from getting full. If your mailbox is full, you may not receive important e-mail notifications. Also, if I need to communicate with you via e-mail, I will send the message to your Gordon e-mail account.
G. **Classroom Etiquette:** Students are expected to treat the instructor and other students with respect. Please refrain from the following during class time:
   1. Talking with other students
   2. Leaving class early (other than an emergency)
   3. Consistently late in arriving to class
   4. Placing or receiving cellular phone calls or text messaging during class. Cell phones should be turned off and out of sight. No cell phone use of any capacity will be tolerated.
   5. Listening to loud music through your headphones

H. **Calculator Usage:** Students will be allowed to use a scientific or a graphing calculator. You may not use a calculator such as Casio EX-115EX which simplifies radical expressions. You may not use the calculator on your cell phone. We recommend the “Texas Instruments TI-30XIIS” which is the used for the Compass exam. The TI-83 or TI-84 Plus graphing calculators are also excellent.

I. **MIDTERM – October 6 (Monday)** – Withdrawals after this date will be an automatic ‘WF’ except in cases of hardship as documented and approved by processing a student petition form through the Registrar.

J. **COURSE RESOURCES**
   You will need a pencil, a notebook (a loose-leaf binder is best), graph paper, and a straightedge. A folder for handouts is highly recommended.

   This course is enhanced by a web-based course software package called My Math Lab. Feel free to “Ask My Instructor” whenever you struggle, and use office hour help, as well. There are also significant course resources in Desire2Learn/GeorgiaVIEW. The course syllabi and course resources are also on your instructor’s website at [http://www.gordonstate.edu/faculty/gclement/](http://www.gordonstate.edu/faculty/gclement/).

   Besides office hours, the SSC (Student Center 2nd floor) is available for tutoring assistance.

   Consider creating a study group with fellow classmates.

   **Keys to Success in this class:**

   1. Have a goal for this class. Make this class a priority. You can succeed in this class!
   2. Be on time every day. Don’t miss class; when you must, communicate to your instructors.
   3. Review class notes just before and just after class.
   4. Read the text. Study the examples. Keep up with the pace of the class.
   5. Practice, practice, and then practice some more. Do homework as soon as possible after class.
   6. Ask questions. You have the right; asking questions shows you care and will often help others.
   7. Read the directions carefully. On tests, start by “unloading” important formulas and concepts.
   8. Actively listen in class. Take good notes.
   9. Use our tutoring center whenever you need help. Don’t let things snowball.
   10. Correct any mistakes you make on quizzes and tests.
   11. Be a lifelong learner. Live and learn! Rise to the challenge of college-level mathematics!

* Treat this class like any job; take deadlines seriously. The schedule below is tentative but should be very close to our pace.
## TENTATIVE COURSE OUTLINE

**MATH 1111-I4**  
Fall Semester 2014

<table>
<thead>
<tr>
<th>Date</th>
<th>Section</th>
<th>Suggested Text Homework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thurs, Aug 14</td>
<td>Introductions, 1.1: Linear Equations</td>
<td>9-63 odd, 69-75 odd, 77-82 all</td>
</tr>
<tr>
<td>Tues, Aug 19</td>
<td>1.2: Quadratic Equations</td>
<td>9-75 odd</td>
</tr>
<tr>
<td>Thurs, Aug 21</td>
<td>1.3: Complex Numbers; Quadratic Equations in the Complex Number System</td>
<td>9-83 odd</td>
</tr>
<tr>
<td>Tues, Aug 26</td>
<td>1.4: Radical Equations, Equation Quadratic in Form; Factorable Equations</td>
<td>7-87 odd</td>
</tr>
<tr>
<td>Thurs, Aug 28</td>
<td>1.5: Solving Inequalities and 1.6: Equations and Inequalities Involving Absolute Value</td>
<td>(1.5) 11-87 odd; (1.6) 7-61 odd</td>
</tr>
<tr>
<td>Tues, Sept 2</td>
<td>Review</td>
<td></td>
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<tr>
<td>Thurs, Sept 4</td>
<td><strong>TEST I (Journal I and MML 1.1-1.6 Homework Due)</strong></td>
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<tr>
<td>Tues, Sept 9</td>
<td>2.1: The Distance and Midpoint Formulas and 2.2 Graphs of Equations in Two Variables; Intercepts, Symmetry</td>
<td>(2.1) 13-41 odd</td>
</tr>
<tr>
<td>Thurs, Sept 11</td>
<td>2.2 Graphs of Equations in Two Variables; Intercepts, Symmetry and 2.3 Lines</td>
<td>(2.2) 13-77 odd</td>
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<tr>
<td>Tues, Sept 16</td>
<td>2.3 Lines</td>
<td>(2.3) 11-105 odd</td>
</tr>
<tr>
<td>Thurs, Sept 18</td>
<td>2.4: Circles</td>
<td>7-41 odd</td>
</tr>
<tr>
<td>Tues, Sept 23</td>
<td>2.5: Variation</td>
<td>3-43 odd</td>
</tr>
<tr>
<td>Thurs, Sept 25</td>
<td>3.1: Functions and 3.2: The Graph of a Function</td>
<td>(3.1) 15-79 odd; (3.2) 1-27 odd</td>
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<tr>
<td>Tues, Sept 30</td>
<td>*3.5: Library of Functions; Review</td>
<td></td>
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<tr>
<td>Thurs, Oct 2</td>
<td><strong>TEST II (Journal II and MML 2.1-2.5 Homework Due)</strong></td>
<td><em>(Midterm is October 6)</em></td>
</tr>
<tr>
<td>Tues, Oct 7</td>
<td>4.1: Linear Functions and Their Properties and *4.2 Linear Models</td>
<td>(4.1) 13-35 Odd</td>
</tr>
<tr>
<td>Thurs, Oct 9</td>
<td>4.3: Quadratic Functions and Their Properties and *4.4 Quadratic Models</td>
<td>(4.3) 11-67 odd</td>
</tr>
<tr>
<td>Thurs, Oct 16</td>
<td>5.1: Polynomial Functions and Models</td>
<td>15-85 odd</td>
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<tr>
<td>Tues, Oct 21</td>
<td>5.4: Polynomial and Rational Inequalities and 5.5 The Real Zeros of a Polynomial</td>
<td>(5.4) 19-47 odd; (5.5) 11-31 odd</td>
</tr>
<tr>
<td>Thurs, Oct 23</td>
<td>Review</td>
<td></td>
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<tr>
<td>Tues, Oct 28</td>
<td><strong>TEST III (Journal III and MML 3.1-3.2, 4.1, 4.3, 5.1, 5.4, 5.5 Homework Due)</strong></td>
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<tr>
<td>Thurs, Oct 30</td>
<td>6.1: Composite Functions</td>
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<tr>
<td>Tues, Nov 4</td>
<td>6.2: One-to-One Functions; Inverse Functions</td>
<td>11-71 odd</td>
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<tr>
<td>Thurs, Nov 6</td>
<td>6.3: Exponential Functions</td>
<td>15-23 odd, 25-40 all, 41-87 odd</td>
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<tr>
<td>Tues, Nov 11</td>
<td>6.4: Logarithmic Functions and 6.5: Properties of Logarithms</td>
<td>(6.4) 9-61 odd, 63-70 all, 71-109 odd; (6.5) 13-77 odd</td>
</tr>
<tr>
<td>Thurs, Nov 13</td>
<td>6.5: Properties of Logarithms and 6.6: Logarithmic and Exponential Equations</td>
<td>(6.6) 5-47 odd</td>
</tr>
<tr>
<td>Tues, Nov 18</td>
<td>6.7: Financial Models; Review</td>
<td>7-53 odd</td>
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<tr>
<td>Thurs, Nov 20</td>
<td><strong>TEST IV (Journal IV and MML 6.1-6.7 Homework Due)</strong></td>
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<tr>
<td>Tues, Nov 25</td>
<td>12.1: Systems of Linear Equations: Substitution and Elimination and 12.6: Systems of Nonlinear Equations</td>
<td>(12.1) 7-53 odd; (12.6) 5-53 Odd</td>
</tr>
</tbody>
</table>

**THANKSGIVING HOLIDAY BREAK (November 26-28)**

| Tues, Dec 2 | Review                          |                                  |
| Thurs, Dec 4 | Study Day (Last Day of Classes is Wedn, Dec 3)                           | Study smart!!!                  |
| **Tues, Dec 9** | Final Exam (2:45-4:45 pm)   |                                  |

*These sections are optional.

**Do your best! Rise to the challenge! Keep up with the pace! Live and learn!**