**Course Information**
Quantitative Methods I – Course 91-600 – Fall 2016
Lecture: 1000am-1250pm, Saturdays, November 5, November 12, November 19
Final Exam: 1000am-1250pm, Saturday, December 3
Room: Hamburg Hall 2003
Instructor: Rocco Pacella
Phone: [masked]
Email: rpacella@andrew.cmu.edu

**Prerequisites**
n/a

**Description**
The objective of the Quantitative Methods I course is to review mathematical concepts, concentrating primarily on algebra and some geometry so as to prepare candidates with an improved, practice-based, applicable understanding of such concepts before applying them within the economics course that is required as part of their program’s academic core.

**Course Materials**
- Three-ring binder, with ruled or graph paper
- Calculator, highly recommended TI-30IIx
- Ruler (for graphing)
- Three pens/pencils of different colors (for graphing)

**Evaluation Method**
This is a pass/fail course, with performance evaluated in the following manner:
- There will be assignments; however, the sole method of grading in this course is based upon the final examination
- Candidates must receive a score of 85% or higher on the final examination in order to pass this course

Notes about assignments:
1. Assignments are meant to provide candidates with a means of practice in preparation for the final examination
2. Assignments may be done individually or in groups; however, all work must be your own
3. Assignments can be hand-written or completed via computer, and must be legible for the instructor to provide feedback
4. I will distribute answer keys for each assignment during the class in which they are due. I strongly suggest creating a copy of your assignments before submitting them, so as to immediately compare answers to the answer keys you will be receiving

**Learning & Course Objectives**
Upon completion of this course, the candidate will be able to:
1. Explain mathematical operations and linear equations
2. Express functions as algebraic and graphical problems
3. Discuss the applications of linear equations, systems of linear equations, and parallel and perpendicular lines
4. Solve systems of equations (using graphic, substitution, and elimination methods)

These objectives will be assessed via the final examination.

**Grading Scale**
Grading is Pass/Fail. A passing grade consists of a minimum final course score of 85%, which will be assessed via the final examination.

**Grading Rubric**
Each problem that is graded on the final examination will be worth a certain number of points based upon the appropriate steps needed to solve that problem. Points will be assigned or deducted based upon how well the candidate is able to show the solution to each problem, their ability to include units where appropriate, and their ability to solve the problem according to the given method or directions indicated.
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Assignment</th>
</tr>
</thead>
</table>
| **Week One**  
November 5 | - Calculator and order of operations review  
- Integers, fractions, decimals, and algebraic expressions  
- Linear equations  
- Plotting points  
- Slope of a line  
- Simple and compound interest (practice with calculator and rounding) | Assignment One Given, Due Week Two |
| **Week Two**  
November 12 | - Linear equations of lines (including horizontal and vertical lines)  
- Linear equations (table, x- and y-intercepts, slope and y-intercept of the line, and applications) | Assignment One Due  
Assignment Two Given, Due Week Three |
| **Week Three**  
November 19 | - Parallel lines  
- Systems of linear equations  
- Examination preparation and review | Assignment Two Due  
Assignment Three (Examination Review) Given, Due Week Four |
| No Class  
November 26 | Thanksgiving Break |          |
| **Week Four**  
December 3 | **Final Examination**  
Students are permitted to have a review sheet for use during the exam. This sheet will be handed out, blank, during the first class. Only one, handwritten side of this sheet may be used. | Assignment Three Due |

| Plagiarism & Cheating Notice | **Plagiarism** and other forms of academic misrepresentation are taken extremely seriously. Misrepresentation of another’s work as one’s own is widely recognized as among the most serious violations. The violation is clearly flagrant when it occurs as plagiarism on a required paper or assignment or as cheating on an examination, regardless of whether it is a take-home or in-class examination. The punishment for such offenses can involve expulsion from the program. There are many other ways in which a violation can occur.  
**Academic Dishonesty:** Students are expected to maintain the highest ethical standards inside and outside the classroom. Cheating on examinations (i.e. plagiarism and unauthorized collaboration) is obviously discouraged and will be treated appropriately. The usual penalty for violations is a failing grade for the particular assignment/examination in question; however, in this instance, such action could likely result in a failing grade for the course. |

| Course Policies & Expectations | **Attendance:** Please make every attempt to contact the instructor if you miss class or know you will need to miss class so that we can make arrangements for assignments and/or handouts passed out during class. Attendance will not be taken into consideration when calculating your final grade as Pass or Fail. |