

**MATH 106-016 – Quantitative Reasoning  
Fall 2013**

(<http://math.gmu.edu/~robeirne/math106>)

**PREREQUISITE:** Specified score on Math Placement Test, or successful completion of self-paced Basic Math Program offered by Math Literacy Center

**INSTRUCTOR:** Richard O’Beirne, Department of Mathematical Sciences  
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Email: [ROBEIRNE@GMU.EDU](mailto:ROBEIRNE@GMU.EDU)  
Office: Exploratory Hall, 4<sup>th</sup> Floor

**MEETINGS:** Wednesdays from 7:20 p.m. to 10:00 p.m. from August 28, 2013 through December 4, 2013 in KH210 (except no class on 11/27 – Thanksgiving break)

**OFFICE HOURS:** 5:00 p.m. – 5:55 p.m. on Mondays and Wednesdays, and by appointment as necessary.

**TEXTBOOK:** “Mathematical Ideas” (Custom Edition for GMU) by Miller, Heeren and Hornsby. Purchase of the MyMathLab access code is optional but recommended.

**MATERIAL:** The course will cover an assortment of material contained in the following chapters:

Chapter 1 – The Art of Problem Solving  
Chapter 2 – The Basic Concepts of Set Theory  
Chapter 3 – Introduction to Logic  
Chapter 6 – The Real Numbers and Their Representations  
Chapter 7 – The Basic Concepts of Algebra  
Chapter 10 – Counting Methods  
Chapter 11 – Probability  
Chapter 12 – Statistics  
Chapter 13 – Personal Financial Management

**GRADING:** There will be 3 in-class, one-hour tests. The lowest of the three will be dropped. The remaining two will account for 60% of the grade. The final examination on December 11 will count for the remaining 40%. I will also give occasional quizzes. The quizzes will not count toward the grade. There will be no make-up exams.

A web site has been set up for the course. On it I will post announcements relevant to the course such as the syllabus, information on tests (review sheets) and solutions, lists of practice problems, etc. You can find it by going to <http://math.gmu.edu> (which is the web site for the math department). On the left side you will see “Quick Links”, and below that a link to “Course Home Pages”. Clicking on that will reveal a link for this course.

I recommend that you buy the abbreviated text together with the MyMathLab software at the GMU bookstore. The cost of this abbreviated version of the text together with the

software is \$112. The software access by itself would cost you \$80. You will find the online access very helpful for practicing the material.

You will need a calculator which has an  $e^x$  key on it (all scientific calculators have this). You do not need to have a graphing calculator for this course.

The Honor Code is taken seriously in this class. Any work that you do for credit, on the tests, must be solely your own.