

George Mason University
Math 106-004
Course Syllabus

Term Spring 2020
Title Math
Course Math 106-004
Location
Time Mon and Wed 4:30 - 5:45
Professor: Douglas Eckley
 deckley2@gmu.edu
 mobile # 571 277 7927 (use sparingly)
 office # 703 993 1682
 office hours MW; 1:00 - 2:45

Description

This course meets the quantitative reasoning requirement, one of the Foundation requirements of the University General Education program. The goal of the Foundation requirement is to help ensure that students are equipped with the tools and techniques necessary to succeed in college and throughout their lives and careers.

The learning objectives for this requirement are:

1. Students are able to interpret quantitative information (i.e., formulas, graphs, tables, models, and schematics) and draw inferences from them.
2. Given a quantitative problem, students are able to formulate the problem quantitatively and use appropriate arithmetical, algebraic, and/or statistical methods to solve the problem.
3. Students are able to evaluate logical arguments using quantitative reasoning.
4. Students are able to communicate and present quantitative results effectively.

To help achieve these objectives, we will discover and apply Excel spreadsheets.

Book

The book is Mathematical Ideas, by Miller, Hereen and Hornsby, 12th or later edition, Pearson 20nn. The lectures are done my way (not directly from the book), so that you have two distinct avenues to learning. The book also serves as a useful source of practice problems.

Topics

Intro to Excel
Graphing and Trendlines
Reasoning, Problem Solving, Logic
Decimals, Percentages, Scientific Notation, Formatting
Set Theory
Probability
Statistics
Math of Finance
Matrices and Encryption

Procedures

If at all possible, but it is not required, bring your pc to class. That way you can be hands-on with Excel during class, which is very conducive to gaining expertise.

The class will consist mostly of a series of lectures.

Grading will be divided as follows:

Progress tests (5)	70
Final exam	20
Core Assessment	4
Group Assignments (2)	6
Pop Quizzes (?)	4

The Core Assessment will be handed down by the Math Department, probably in March.

Attendance

I do not take attendance. On group assignment days, if you are not there, your group will struggle and you will not get credit. You must be physically in the classroom to get those points.

ALSO, I can give a pop quiz for points whenever I like. That means if at any time, there aren't many people in the room, look out.

Calendar

<u>Date</u>	<u>Topic</u>
22-Jan-20	Introduction to Excel
27-Jan-20	Graphing and Trendlines

29-Jan-20	Group Assignment
03-Feb-20	Scientific Notation
05-Feb-20	Progress Test 1
10-Feb-20	Probability
12-Feb-20	Probability
18-Feb-20	Casino Math
20-Feb-20	Simulation
25-Feb-20	Review
27-Feb-20	Progress Test 2
04-Mar-20	Set Theory
06-Mar-20	Set Theory
11-Mar-20	Spring Break
13-Mar-20	Spring Break
18-Mar-20	Statistics
20-Mar-20	Statistics
25-Mar-20	Review
27-Mar-20	Progress Test 3
01-Apr-20	Growing Money
03-Apr-20	Math of Loans
08-Apr-20	Retirement Saving
10-Apr-20	Retirement Saving
15-Apr-20	Review
17-Apr-20	Progress Test 4
22-Apr-20	Marices
24-Apr-20	Encryption
29-Apr-20	Group Assignment
01-May-20	Review
06-May-20	Progress Test 5

Final Exam (as scheduled on <http://registrar.gmu.edu/calendars/>)