George Mason University
Math 110-002
Course Syllabus

Term   Fall 2019
Title   Probability
Course   Math 110-002
Location   Robinson Hall B203
Time   MW noon - 1:15
Professor: Douglas Eckley
              deckley2@gmu.edu
              mobile #   571 277 7927 (use sparingly)
              office   Exploratory Hall room 4451
              office #   703 993 1682
              office hours   MW 1:30 - 2:50 and W 4:30 - 7:00

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.

This course meets the quantitative reasoning requirement of the Mason Core. As such, the professor is required to introduce the students to a computer-based math capability. In my class, that means Excel spreadsheets.

We will cover the following topics:

        Introduction to Excel
        Graphs and Slideshows

Matrices
Linear Equations
Combinations and Permutations
Probability
Mathematics of Loans (Car, Home)
Mathematics of Retirement Saving
Data Fitting - Trendlines and Errors
Encryption

The book is <u>Finite Mathematics and Its Applications</u>, Eleventh or later Edition, by Goldstein, Schneider and Siegel. The lectures are done my way (not from the book). The book serves as a useful source of practice problems and as a back-up resource. The idea is that you have two chances to learn the material: from lecture and from book.

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:

Online tutorial on 26 Aug	1
Group Assignments (2)	4
Progress tests (5)	75
Final exam	20

Calendar

Date	Topic
26-Aug-18	Online tutorial/problem (do not come to the classroom)
28-Aug-18	Introduction to Excel
02-Sep-18	Labor Day Break
04-Sep-18	Graphs and Slideshows
09-Sep-18	Group Assignment #1 / Review
11-Sep-18	Progress Test 1
16-Sep-18	Matrices
18-Sep-18	Matrices
23-Sep-18	Linear Equations
26-Sep-18	Linear Equations
30-Sep-18	Review
02-Oct-18	Progress Test 2

07-Oct-18	Combinations and Permutations
09-Oct-18	Combinations and Permutations
15-Oct-18	Probability (Tuesday meeting because of fall break on the 14th)
16-Oct-18	Probability
21-Oct-18	Review
23-Oct-18	Progress Test 3
28-Oct-18	Mathematics of Loans (Car, Home)
30-Oct-18	Mathematics of Loans (Car, Home)
04-Nov-18	Mathematics of Retirement Saving
06-Nov-18	Mathematics of Retirement Saving
11-Nov-18	Review
13-Nov-18	Progress Test 4
18-Nov-18	Trendlines and Errors
20-Nov-18	Encryption
25-Nov-18	Group Assignment #2
27-Nov-18	Thanksgiving Break
02-Dec-18	Review
04-Dec-18	Progress Test 5
09-Dec-18	Reading
11-Dec-18	Final Exam