Math 106 005 (Monday Hybrid) Syllabus Fall 2017

Instructor: Karen Crossin **Office: Exploratory Hall room 4221**
Office Hours: Monday 8:30-9:30 AM, Tuesday 9:30-11 AM and on line by appointment.
Email: kcrossin@gmu.edu

Learning assistants: Ann Stephens and Allison Chung are undergraduate students who took this class before and are planning to be teachers. They will both have some additional office hours, facilitate conversations in the classroom and on the discussion board and they will run oral reviews prior to each unit test. We are very lucky to have this extra support.

Hybrid/Flipped class – What is that???? This class is designed as a Hybrid class, which means that half of the time you spend in the classroom is being replaced by online work or material. Lecture videos are provided to you via blackboard, and there are supplemental videos on MyMathLab which I suggest you watch prior to attending each class. In class after the first week we will spend a majority of our time working in groups on problem solving. I strongly suggest attempting all online homework prior to attending class so that you can work together on the harder problems. Having lecture outside class and doing problems in class is referred to as the flipped classroom pedagogical model. You will have support after class through the MyMathLab portal, but also through our Blackboard discussion board and there will be my office hours as well as the office hours of the two Learning Assistants (TBA).

EMAIL - When emailing me, put MATH 106 005 or Hybrid Monday followed by **your** first & last name in the subject line. As a general rule you should also provide something meaningful in the subject line. This general rule should be used with ALL emails you send – many emails need a little more than a clear subject line to get the entire point across. I do not open or respond to emails without this information.

Text: Mathematical Ideas, by Miller, Hereen and Hornsby, *Custom Edition*, Pearson, 2012 (ISBN: 978-1-256-71962-5) or Mathematical Ideas full 12th edition (ISBN-13: 978-0321693815 or ISBN-10: 0321693817). The custom book is just the parts of the full text that we actually use.

Alternatively, the full ebook and MyMathLab access code can also be purchased online – Just click on the tab on blackboard that says MyMathLabHomework and follow the prompts.

Calculators: You will be required to have a calculator for the course with an $\mathbf{e^x}$ function and factorial function (**!**). We are recommending the TI-83/84 or TI-30II. There have been students who were just fine with a $5 Scientific Calculator from Target/ Walmart.

Course 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.

The course will introduce the following material: Inductive and Deductive Reasoning, Sets, Logic, Counting, Probability, Statistics and Finance.

Test Dates:

- Test 1: Monday, Sept. 25
- Test 2: Monday, Oct. 23
- Test 3: Monday, Nov. 27 or possibly Wednesday the 29th – To be announced in class.
- Final Exam: Wednesday December 13 10:30 – 1:15 – If you have two other exams scheduled this day, or another class conflict please email me by Oct. 1 to discuss other options. See the final exam schedule @ http://registrar.gmu.edu/calendars/fall-2017/final-exams/
- Tests must be taken on these dates. NO make-up tests will be given. You must present a photo ID for each test.

Grading: Your grade for the course will be calculated based on:

- Semester and weekly schedules submitted on time (20 points)
- Three exams (100 points each for a total of 300 points)
- Online homework (50 points)
- Collaborative activities (50 points)
- Final Exam (150 points).

Your total number of points will be divided by 6.
The grading scale will be: A: 90-100%; B: 80-89%; C: 70-79%; D: 60-69%; F: below 60% .
+ or – may be attached to the grade for *approximately* the upper or lower 2 points.

MyMathLab is a powerful online, homework, tutorial and assessment system that accompanies your new textbook. Students can take assessments, and receive personalized study plans based on their results. The study plan diagnoses weaknesses and links students to tutorial exercises for objectives they need to study. In many cases students can also access video clips, PowerPoint presentations, and other animations for each section and from selected exercises.

MyMathLab is NOT a program operated by GMU. If you are experiencing technical difficulties using the program, then you can email or "chat" with Customer Support directly through the Pearson Education Customer Service website. Go to http://247pearsoned.custhelp.com for more information. Help is available 24 hours a day, seven days a week. You could also call the Pearson Customer Service and **Technical Support number at 800-677-6337**.

Warning: When doing the MML homework, your goal should be to be able to complete it without the use of the "Help Me Solve This" or "View an Example" helps. If you are not able to do this, you do not know the material well enough to be successful on Exams or Quizzes.

Disability statement: If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Resources at 703.993.2474. All academic accommodations must be arranged through that office.

Tutoring Center: The Math Tutoring Center is located in the Johnson Center Room 344. Help is available on a walk-in basis. For hours of operation see http://math.gmu.edu/tutor-center.php

University Honor Code: You are expected to follow the GMU Honor Code
http://oai.gmu.edu/the-mason-honor-code/

Below is the schedule for the course. Homework is due the same day we have our in class meetings. Feel free to bring questions to class to discuss together. There will be other activities and problems to solve collaboratively in class each week.

Week Beginning on Friday	**Week**	**Homework due at 1:00 PM Mondays**	**Topics**	**Sections Covered**
Aug 26	1	Sept 5 – Due to Labor Day this week's due date is on a Tuesday	Problem Solving and Sets	1.1 , 1.2 & 2.1
Sept 1	2	Sept 11	Set Theory	2.2, 2.3 &2.4
Sept 8	3	Sept 18	Intro to Logic	3.1, 3.2 & 3.3
Sept 15	4	Sept 25	More Logic	3.3, 3.4 & 3.6
		Test on blue unit	Monday Sept 25	
Sept 22	5	Oct 2	Decimals, Percent and Scientific Notation	6.5 & 7.5
Sept 29	6	Oct 10 Tuesday due to Columbus Day	Counting Methods	10.1, 10.2 & 10.3
Oct 6	7	Oct 16	Counting and Probability	10.5 & 11.1
Oct 13	8	Oct 23	Probability	11.2,&3,11.5
		Test on orange unit	Monday Oct 23	
Oct 20	9	Oct 30	Introductory Statistics	12.1, 12.2 & 12.3
Oct 27	10	Nov 6	Statistics	12.3 & 12.4
Nov 3	11	Nov 13	Normal distribution	12.5
Nov 10	12	Nov 20	Interest	13.1
		Test on Green Unit	Monday Nov 27	***
Nov 17	13	Dec 4	Borrowing Money	13.2 & 13.4
10:30 – 1:15		**Final exam**	**Wednesday**	**December 13**

*** I will consider having a review on Monday Nov 27 since it is the first day back after Thanksgiving break, and letting you all take this test on Wednesday Nov 29 either at our regular class time or another time if you inform me of a schedule conflict well before Thanksgiving break. This decision and the final date, time and location of this test will be announced in class on or before Monday November 20.