Math 106-004 Spring '19 Syllabus Instructor: Karen Sandreczki Office: Exploratory 4309

Flipped class – Having lecture outside class and doing problems in class is referred to as the flipped classroom pedagogical model. Questions you bring from your homework will be discussed in class. In addition, we will have several activities in class that will highlight different aspects of the type of math that is being learned in that week. You will have support after class through the MyMathLab portal, but also through our Blackboard discussion board and there are many lecture videos and videos of worked problems available on blackboard that were made by Math 106 instructors here at Mason.

EMAIL: ksandrec@gmu.edu - When emailing me, put MATH 106 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. Most math questions are not good to ask over email. Math questions should be asked in the discussion board. I reserve email in this course for questions about grades, or private discussions (not relevant to everyone in the course). Anything else, post to the discussion board. I answer emails once a day (Monday – Friday).

Office hours: Tuesdays 11:00am-1:00pm in Exploratory 4309 Online office hours are available by appointment.

Text: Mathematical Ideas, by Miller, Hereen and Hornsby, *Custom Edition* or 13th edition Pearson The textbook bundled with a MyMathLab access code can be purchased in the campus bookstore. Alternatively, the ebook and MyMathLab access code can also be purchased online – Just click on the tab on blackboard that says MyMathLab Homework and follow the prompts.

Calculators: You will be required to have a calculator for the course with an **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.

Below is the tentative schedule of the tests, any changes will be announced on Blackboard. The final exam will be cumulative.

- Exam 1: Thursday, February 21st
- Exam 2: Thursday, March 28th
- Exam 3: Thursday, April 25th
- Final Exam: May 14th from 1:30 pm 4:15 pm location TBD

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

- Discussion Board Posts (100 points)
- Online (MyMathLab) Homework (100 points)
- Written Homework (via Blackboard) (100 Points)
- Project TBD (100 Points)
- In person Tests (100 points each, totaling 300 points)
- Final Exam (In person) (200 points)

Divide your total score by 9 to determine your percentage.

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 the upper or lower 2 points in each range.

Lectures: Several seasoned Math 106 instructors from GMU have recorded lecture videos which are available under the course content tab in Blackboard. Watch these videos and take notes as if you were in class. If you do not watch them, you are essentially skipping class. There are also videos on MyMathLab which cover the entire unit from the text, not just the parts we are focusing on. Some students in the past have watched both sets of videos. You are an adult, so it is up to you to decide what you would like to do. There are also worksheets with worked solution videos to take the place of the part of class where you would ask homework questions. Please take advantage of the resources available to you!

Discussion Boards: You are required to post the solution to one homework problem *each week* to the discussion boards. You must also respond to at least two of your class mates to receive full credit. Your posts will be graded based on completion. Posting offensive language, rants, or other inappropriate behavior *will* lead to point deductions.

Please use the discussion board for ALL content and logistical questions about this course. Make sure you post under the "Ask the Professor" forum and either reply to an existing thread or create a new one with a meaningful subject line indicating the unit/ chapter/ section or topic you are discussing. Your post can show your work, ask a question or answer a question. I strongly encourage the use of drawings, colors, tables and descriptions of your thought process. Some students in the past have shared links to other helpful sites or screen shots of their work on MyMathLab. Students who regularly participate in the discussion board tend to earn the highest grades – These students frequently submit incorrect work to the discussion board, and get the DISCUSSION started which is where learning frequently happens.

Handwritten Homework: The homework problems are posted each week on Blackboard. They are due every other week. The listed problems are textbook problems that are not available on MyMathLab or greatly benefit from written solutions. Solutions must be handwritten and submitted via Blackboard as a single pdf. Emailed homework will **not** be accepted.

Online Homework: Your online homework grade in this course comes from the MyMathLab on line homework system. Registration information for that system is partially explained in the welcome video and there are directions posted below the syllabus on Blackboard. The homework is broken into each section, however multiple sections may be due each week. Please pay attention to the due dates.

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.

Homework assignments are provided with a help menu which includes links to things like videos, practice problems, similar examples, and the link to the textbook section pertaining to the material. You will have unlimited changes to complete each homework problem (though the numbers may change after 3 attempts), so if you miss a question please take advantage of these help menus.

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.

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**.

Exams and Final: It is expected that students will take the tests on campus on the scheduled date. There will be no make-up exams available. Each test must be taken in the Math Testing Center in Exploratory Hall room 4107. There will be a sign-up sheet for each exam where you can schedule your time block. Late students will not be permitted to take the test and will not be given a makeup exam.

If I am informed that you cheated on your exam or were rude to the Math Testing Center employees, you will fail the course.

If you are unable to be in class on the day of a test you must ask me beforehand (in person or by email) so that I can determine if you situation warrants a make-up test. Do not assume you will be given a make-up unless you get confirmation from me. You must be able to validate your excuse with documentation or you will not be allowed a make-up. If you are more than 50 miles away from the Fairfax campus then we can discuss the possibility of you using a testing center to proctor your exams. Please email me if you are in this situation.

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

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.

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

Sexual Harassment, Sexual Misconduct, and Interpersonal Violence As a faculty member and designated "Responsible Employee," I am required to report all disclosures of sexual assault, interpersonal violence, and stalking to Mason's <u>Title IX Coordinator</u> per <u>university policy 1412</u>. If you wish to speak with someone confidentially, please contact the <u>Student Support and Advocacy Center</u> (703-380-1434), <u>Counseling and Psychological Services</u> (703-993-2380), <u>Student Health Services</u>, or <u>Mason's Title IX Coordinator</u> (703-993-8730; cde@gmu.edu).

Privacy: Students must use their MasonLive email account to receive important University information, including communications related to this class. I will not respond to messages sent from or send messages to a non-Mason email address.

Undergraduate Course Repetition: Beginning fall 2018, there is a limit of three graded attempts for this course. A W does not count as a graded attempt. Please see AP. 1.3.4 in the University Catalog and consult with your academic advisor if you have any questions.

Tentative Schedule

Week	Lecture Sections	MyMathLab	Blackboard	Homework	Exam Date
		Homework	Handwritten	Date	
		Sections Due	Solutions Due		
1	1.1, 2.1, 2.2, 2.3	1.1, 2.1, 2.2		1/28	
2	2.3, 2.4	2.3, 2.4	Chapter 2	2/4	
3	3.1, 3.2, 3.3	3.1, 3.2		2/11	
4	3.3, 3.4, 3.6	3.3, 3.4, 3.6	Chapter 3	2/18	
5	6.5, 7.5	6.5, 7.1, 7.2		2/25	2/21 Ch 2&3
6	10.1, 10.2, 10.3	10.1, 10.2, 10.3	Chapter 10	3/4	
7	10.5, 11.1	10.5, 11.1		3/18	
8	11.2, 11.3, 11.5	11.2, 11.3, 11.5	Chapter 11	3/25	
9	12.1, 12.2, 12.3	12.1, 12.2		4/1	3/28 Ch 10 & 11
10	12.3, 12.4	12.3, 12.4	Chapter 12	4/8	
11	12.5	12.5		4/15	
12	13.1	13.1	Chapter 13	4/22	4/18 Ch 12
13	13.2, 13.4	13.2, 13.4		4/29	
14	Review				
15	Finals Week				