Math 106 Spring '19 Syllabus Instructor: Karen Crossin Office: Exploratory 4221 (1 am not there often) Tuesday meetings, 9-10:15 Merten 1200

Office hours: Tuesdays 1:30 – 3:00 near Peterson 1113, Thursdays 7:30-8:45 AM near Merten 1200

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 lecture videos. Online lecture videos are nice because you can stop and rewind whenever you want to. Having lecture outside class and doing problems in class is referred to as the flipped classroom pedagogical model. You will have support before and after class through the WebAssign online text book and homework system, 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. We are also in a classroom with whiteboards and windows we can write on and you will be asked to write on them with a dry erase marker, so **please bring a dry erase marker to class each session**.

Learning Assistant! This Spring, we are blessed with a Learning Assistant who will hold office hours and review sessions. Marian took this class with me last year and she intends to be a teacher when she is done being a student. Sometimes students find other students more approachable than professors. Marian will facilitate discussions in the classroom and moderate discussions on the discussion board. She does not have any authority over grades or anything like that, so please only ask her content questions.

EMAIL: <u>kcrossin@gmu.edu</u> - I reserve email in this course for questions about private issues (not relevant to everyone in the course). When emailing me, put MATH 106 and your section number or daily meeting day followed by <u>your</u> first & last name in the subject line. As a general rule you should always 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. <u>Most</u> math questions are not good to ask over email. <u>Math content and logistical questions should ALL be asked in the discussion board.</u> Anything else, post to the discussion board. I answer emails once a day (Monday – Friday).

Text: <u>Discovering Mathematics by Richard Aufmann–</u> This semester we are piloting a new text book and online homework system so it will be provided to you at no cost. The text book and online homework will be accessed through the WebAssign homework etc... link on Blackboard. **With the \$100 you save not buying a book, please buy a dry erase marker or two** and some healthy food!

Calculators: You will need have a calculator for the course with an **e**^x function and factorial function (!). We are recommending the TI-83/84 or TI-30II. You will not be permitted to use your phone calculator on any tests or quizzes in the classroom, so I suggest you bring your calculator to each class so that when you need it on tests you are familiar with how it works. I will not answer any "How do I use this calculator" questions during tests and quizzes. Please do not spend a fortune on a fancy calculator – if you have one it is fine, but if not then spend less!

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.

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

- Syllabus quiz (50 points due day 1)
- Online Test 30 points
- Online Quiz 20 points
- Online (WebAssign) homework (100 points)
- Written homework (100 points)
- Online (Blackboard) cumulative homework project (100)
- In person Tests (100 points each, totaling 200 points)
- Final Exam (In person) (200 points)
- Calendar Assignments (25 points each, total of 50 points) OPTIONAL
- Discussion Board (25 points) OPTIONAL
- Written Work for WA (25 Points) OPTIONAL

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

NO make-up tests will be given. You must present a photo ID for each in person test.

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 WebAssign 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!

Homework: Your homework grade in this course comes three places. You will have some traditional written homework, some WebAssign on line homework and a small cumulative project at the end of the term. Written homework will generally be passed out in class and need to be turned in in class at the start of the next class. I do not accept any late homework.

Discussion Boards: <u>Please use the discussion board for ALL content and logistical questions</u> about this course. Make sure you post under the correct 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 WebAssign. 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.</u>

WebAssign is NOT a program operated by GMU. If you are experiencing technical difficulties using the program, then you can call 1-800-354-9706, or you can email Scott Kirk - scott.kirk@cengage.com, who will not respond immediately, but he is much more familiar with THIS course.

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 <u>http://math.qmu.edu/tutor-center.php</u>

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

Class	Week	Week	Homework due at 11:59 PM	Topics	Sections Covered
meeting Tuesday	Beginning on Friday before class meeting		Friday		
Jan. 22	Jan. 18	1	Jan 25	Reasoning and Estimation	1.1 & 1.2
Jan. 29	Jan. 25	2	Feb. 1	Sets	2.1
Feb. 5	Feb. 1	3	Feb. 8	Logic	2.2 & 2.3
Feb. 12	Feb. 8	4	Feb. 15	EXAM IN CLASS	1.1-2, 2.1-3
Feb. 19	Feb. 15	5	Feb. 22	Percent and Interest	3.4, 4.1 & 4.2
Feb. 26	Feb. 22	6	March 1	Annuities and Credit	4.3 & 4.4
Mar. 5	March 1	7	March 8 HW & ONLINE TEST	Cars and Houses	4.6 & 4.7
None		\odot	Spring Break	Relax or work ahead	လလလလလလလ
Mar. 19	March 8	8	March 22	Basic Probability	7.1 – 7.3
Mar. 26	March 22	9	March 29 Quiz online Ch 7	More Probability	7.4 7.6
Apr. 2	March 29	10	April 5	Basic Statistics	8.1 & 8.2 and/ or supplement
Apr. 9	April 5	11	April 12	More Statistics	8.3 & 8.4
Apr. 16	April 12	12	April 19	EXAM IN CLASS	Chapters 7 & 8
Apr. 23	April 19	13	April 26	Finish up and Review	WA notes check
Apr. 30	April 26	14	May 3 Bb project due	Review for Final	
Thursday	May 9		FINAL EXAM	7:30 AM Room TBA	

Below is the **TENTATIVE** schedule for the course.