Math 106 (3 Credits) Spring 2022 Syllabus

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 lectures and other learning modalities. 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 Hawkes Learning system, but also through our Blackboard discussion board moderated by both learning assistants and myself, as well as office hours and some videos created based on frequently missed problems. There are also many videos available on blackboard made by other Math 106 instructors here at Mason.

EMAIL: <u>kcrossin@gmu.edu</u> – I reserve email in this course for questions about grades, or private discussions (not relevant to anyone else in the course). Anything else, ask us in class or post to the discussion board. I answer emails once a day (Monday – Friday). Please communicate through GMU emails only. More info on student privacy and student rights under FERPA here: <u>https://registrar.gmu.edu/ferpa/</u>. When emailing me, or any professor, provide in the subject line, the name AND section of the course you are enrolled in. You also need to include YOUR name in any email you send. 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. *ALL math questions should be asked during class, office hours or by sharing an image of the online question and your hand-written work on the discussion board*.

Learning Assistants: We are lucky to have two learning assistants this semester. Gaby took this class asynchronously online last semester and both Gaby and Eren want to teach after they finish school. They will be in class to assist with collaborative activities, offer office hours and possibly review sessions before exams.

Office hours: To be finalized the second week of class with student input.

Instructor - Crossin: To be finalized the second week of class.

Learning Assistants: Gaby Maldonado: Tu and Thu 10:30-11:30 on BBCU or Exploratory Hall, 4206 Eren Gelen: To be finalized the second week of class, BBCU/ face to face TBD

Text/Online learning system: <u>Viewing Life Mathematically</u> (Custom for GMU) by Denley. Please use the free trial when you start using this system just in case after a week or so you decide to change your plans. Follow prompts for **HAWKES** on Blackboard.

Equipment: INTERNET, COMPUTER, EXCEL, Calculators, white board/ dry erase marker(s): Since this course is taught half online you will need access to a computer with reliable internet. For the class collaboration you will need a dry erase marker. You will want to have a calculator with an **e**^x function and factorial function (!). We are recommending the TI-83/84 (ONLY IF YOU HAVE ONE ALREADY) or TI-30II. You will also be prompted to use excel for some more involved calculations. If you do not have the Microsoft Office here is a link to get it free: <u>https://its.gmu.edu/knowledgebase/how-to-install-microsoft-365-apps-for-enterprise-on-your-computer/</u>

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.

Purple.

 Students are able to communicate and present quantitative results effectively. The course will introduce the following material: Rates, Ratios, Percent, Counting, Probability, Statistics, Sets and Logic.

Grading weights: There are two options for grade calculation. I will calculate both options for every student, and award each student the higher of the two calculations.

Assignment	Weights with option 1	Weights with option 2	
Syllabus quiz	5%	5%	
Time Management Tools	5%	5%	
Class Prep and Class Collaboration		20%	
Average of 3 Tests	45%	30%	
Hawkes Certify (50%) & quizzes (50%)	25%	25%	
Final Exam Thursday May 12 7:30-10:15 AM? This will be finalized during week 3	20%	15%	

Items in Green are submitted on Blackboard. Items in Blue are in Hawkes. In person is

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

Class Prep and Class Collaboration: Quick class preparation assignments are to ensure all get the most out of class time. One part of the prep work for this semester is doing the daily COVID health check. You may need to show this to us when you enter the room. Sometimes the prep will be just doing the Learn mode on Hawkes, and others it will be to bring notes or hand- written definitions to class. The prep work will be sent weekly in announcements and listed on Blackboard. Class collaboration will be working problems together on the whiteboards in class and the grade for this will generally be 2 points for prep, 8 points for in class collaboration, and a couple will be dropped at the end of the semester so please don't come to class ill.

Health, Class, and Test days: If you are feeling unwell in any way, please do not come to class. Do the daily COVID health check and drink water and rest. If you miss a single proctored test, your final exam grade can replace that test. If you miss more than one test, we will work on a solution. Please take care of yourself and be careful for those around you. If I become ill, I will email the class and either ZOOM class or cancel.

HOW TO USE HAWKES Each lesson of the software offers three modes:

Learn is an interactive presentation of the material found in your textbook and includes instructional video clips and example problems. Skipping this portion is equivalent to skipping class and reading. DO NOT SKIP THIS. Practice gives you access to unlimited practice problems, provides error- specific feedback for commonly made mistakes, hints for all incorrect answers, and includes an interactive Tutor with Step by-Step guidance and fully worked out solutions. Note that every question type from Certify can be found in the Practice mode. *Certify is the graded homework portion of the lesson.* After answering the set of questions without

exceeding the available strikes (or lives), you will receive a perfect 100% score for your homework. If you are not able to Certify in your attempt, you are able to start a new set of questions over again with no penalty. In the meantime, you may wish to spend more time in the Practice mode before attempting Certify again. You have unlimited attempts in each lesson to receive full credit before the due date.

Late Certify assignments will be accepted for partial credit. 10% deduction for up to 2 days late, 20% for up to 7 days late, 30% for up to 21 days late and 40% deduction for anything later than 21 days through the day before the final exam is due.

GETTING HELP

Contact Hawkes with any technical questions, including creating your username and password, finding your Access Code or license number, or completing your work. Additional videos at <u>www.hawkestv.com</u>. **Phone**: 1.800.426.9538 available Monday-Friday, from 8:00am-10:00pm ET. **Email**: support@hawkeslearning.com **Chat**: <u>www.hawkeslearning.com/chat</u> Chat support is available 24/7.

Diversity, equity and inclusion: George Mason University is an intentionally inclusive community that promotes and maintains an equitable and just work and learning environment. We welcome and value individuals and their differences including race, economic status, gender expression and identity, sex, sexual orientation, ethnicity, national origin, first language, religion, age, and disability. Please email me if you have any concerns about any feeling of inequity in this course.

Disability statement: If you are a student with a disability and you need academic accommodations, please contact Disability Services at 703.993.2474. All academic accommodations must be arranged through that office. Your accommodations sheet must be submitted on Blackboard at least one week prior to any assessment that you are requesting accommodations for. <u>https://ds.gmu.edu/</u>

GMU Math Tutoring Center: The Math Tutoring Center will be offering online tutoring services to students currently enrolled in undergraduate Math courses at GMU. More information can be found at:

https://science.gmu.edu/academics/departments-units/mathematical-sciences/math-tutoring/tutoring-centerhours-and

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

Additional Resources/Student Services:

- Keep Learning, Learning Services <u>https://learningservices.gmu.edu/keeplearning/</u>
- Counseling and Psychological Services <u>https://caps.gmu.edu/</u>
- See a longer list of Mason student support services posted on The Stearns Center website: <u>https://stearnscenter.gmu.edu/knowledge-center/knowing-mason-students/student-supportresources-on-campus/</u>

Please find the class schedule/calendar below. On Blackboard you will find an active link so that you can edit this calendar as you progress through the course. This will be part of the framework for your time management tools assignment. It is meant as a tool to help you stay on track.

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	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Wk 1	23 Everything on Hawkes in blue Everything on Blackboard is green Self-care boxes (2)	24 Self-Care Check! UNIT 1 Intro Video Quiz DUE Syllabus Quiz DUE!	25 Self-Care Check!!	26 Self-Care Check! Average minutes spent in Hawkes for each unit provided. ("min) for time management!	27 Self-Care Check!	28 Self-Care Check! 1.3 Estimation(~20min) 4.1 Rates (59) 4.2 Ratios (62) 4.3 Proportions (52) 4.4 Percent (40)	29 Self-Care Check!
Wk 2	30 Self-Care Check!	31 Self-Care Check! Quiz 1 (1.3,4) DUE	February 1 Self-Care Check! Lunar New Year	2 Self-Care Check! Candlemas (St Brigid's Day)	3 Self-Care Check!	4 Self-Care Checkl	5 Self-Care Check! Vasant Panchami
Wk 3	6 Self-Care Check!	7 Self-Care Check! Quiz 2 (7.1) DUE Last day to drop and get all \$ back!	8 Self-Care Check!	9 Self-Care Check!	10 Self-Care Check!	11 Self-Care Check! 7.2 Add Rules(78) 7.3 Mult Rules (88)	12 Self-Care Check!
Wk 4	13 Self-Care Check!	14 Self-Care Chr Quiz 3 (4 & 7.1-3) DUE Drop with ½ \$ Valentine's Day	15 Self-Care Check!	16 Self-Care Check!	17 Self-Care Check!	18 Self-Care Check! 7.4 nPr & nCr (95) 7.5 Extra Credit	19 Self-Care Check!
Wk 5	20 Self-Care Check!	21 Self-Care Check! TEST 1 (1.3,4,7) DUE Proctored?	22 Self-Care Check! UNIT 2	23 Self-Care Check!	24 Self-Care Check!	25 Self-Care Check!	26 Self-Care Check!
Wk 6	27 Self-Care Check!	28 Self-Care Check! Quiz 4 (1.1)	March 1 Self- Care Check! Last day unrestricted withdrawal	2 Self-Care Check! Ash Wednesday	3 Self-Care Check!	4 Self-Care Check!	5 Self-Care Check!
Wk 7	6 Self-Care Check!	7 🔲 Self-Care Check!	8 Self-Care Check!	9 Self-Care Check!	10 Self-Care Check!	11Self-Care Check!8.2 Dispersion (186)	12 Self-Care Check!
Wk 8	13 Self-Care Check! March Machess	14 Self-Care Checkl Spring break	15 Self-Care Checkl Spring break	16 Self-Care Check! Spring break	17 Self-Care Check! Saint Patrick's Day Purim	18 Self-Care Check Spring break Holi	19 C Self-Care Check! Spring break
Wk 9	20 Self-Care Check! Spring break Spring Equinox (Ostara)	21 Self-Care Check! Naw-Rúz (Bahá'í New Year)	22 Self-Care Check!	23 Self-Care Check!	24 Self-Care Check!	25 Self-Care Checkl 8.3 Position (90)	26 Self-Care Check!
Wk 10	27 Self-Care Check!	28 Self-Care Check! Quiz 6 (8.1-3)	29 Self-Care Check!	30 Self-Care Check! Avg & GPA Videos	31 Self-Care Check!	April 1 Self-Care Check! 8.4 Normal (72) 8.5Normal Prob(48)	2 Self-Care Check!
Wk 11	3 Self-Care Check!!! Beginning Of Ramadan	4 Self-Care Check! TEST 2 (Ch. 8) DUE Proctored	5 Self-Care Check!	6 Self-Care Check!	7 Self-Care Check!	8 Self-Care Check!	9 Self-Care Check!
Wk 12	10 □ Self-Care Check!	11 Self-Care Check! QUIZ 7 (2.1) DUE Last day for selective withdrawal	12 Self-Care Check!	13 🗌 Self-Care Check!	14 Self-Care Check! Vaisakhi Maundy Thursday	15 Self-Care Check! 2.2 Subsets (74) 2.3 Operations(102) Good Friday	16 Self-Care Check! Passover
Wk 13	17 Self-Care Check!! Passover Easter	18 Self-Care Check!!	19 Self-Care Check!!	20 Self-Care Check!	21 Self-Care Check! Ridvan Festival	22 Self-Care Check! 2.4 Surveys(119) Holy Friday Passover	23 Self-Care Check! Passover
Wk 14	24 Self-Care Check! Pascha	25 🔲 Self-Care Check! 🗌 QUIZ 9 (Ch. 2) DUE	26 Self-Care Check!	27 Self-Care Check!	28 Self-Care Check!	29 Self-Care Check! 3.1 Logic (37) 3.2 Tables (43) EC 3.3 Equivalence(106) 9 th Day of Ridvan	30 ☐ Self-Care Check! T
Wk 15	May 1 □ Self-Care Check! May Day (Beltane)	2 Self-Care Check! TEST 3 (Ch.2 & 3) DUE 12 th Day of Ridvan	3 Self-Care Check! Start final exam review Eid-at-Fitr	4 □ Self-Care Check!	5 Self-Care Check!	6 Self-Care Check!	7 Self-Care Check! Last Day of Classes
Finals	8 Self-Care Check!	9 Self-Care Check! Reading day	10 Self-Care Check! Reading day	11 Self-Care Check!	12 Self-Care Check! Proctored FINAL 7:30 AM	13 Self-Care Check!	14 Self-Care Check!
Finals	15 🗌 Self-Care	16 🗌 Self-Care Check!	17 🔲 Self-Care	18 Self-Care Check!	19 Self-Care Check!	20 Self-Care Check!	21 Self-Care