

GEORGE MASON UNIVERSITY COURSE SYLLABUS

Instructor: Emmanuel Addo

Phone: (804)-503-1419 (text only)

Zoom Office Hours: TR 8AM @ <https://gmu.zoom.us/j/99423686280> OR Before Class (In person)

Email: eaddo2@gmu.edu

Course: Quantitative Reasoning MATH 106 – 012

Class Time: TR 5:55PM – 7:10PM

Location: Planetary Hall 224 OR @ <https://gmu.zoom.us/j/96599324343>

Text: Viewing Life Mathematically (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 LEARNING** on Blackboard under *Course Content*.

COURSE REQUIREMENTS

Hawkes Learning: This software is needed to do 60% of the course including homework assignments and ebook for the course which is Viewing Life Mathematically (Custom for GMU) by Denley. It has power point slides for each section, topical videos, and instructional tips for answering questions among others. Bring your laptop to class daily.

Calculators: You will be required to have a calculator for the course with an e^x function and factorial function (!). Feel free to use online calculator. You will also be prompted to/ permitted to/ encouraged to use excel for some more involved calculations.

Material to be Covered Sections covered are 1.3, 2.1-2.4, 3.1-3.3, 4.1-4.5, 7.2-7.5, 1.1, 8.1-8.5. This course satisfies the General Education Requirement in quantitative reasoning.

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.

COURSE LEARNING OUTCOMES: 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: Reasoning, Sets, Logic, Ratios and Proportions Counting, Probability and Statistics.

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

1. Learn is an interactive presentation of the material found in your textbook and includes instructional video clips and example problems.
2. 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.

3. Certify is the 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.

Additional videos can be found at www.hawkestv.com.

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.

Phone: 1.800.426.9538 available Monday-Friday, from 8:00am-10:00pm ET.

Email: support@hawkeslearning.com

Chat: www.hawkeslearning.com/chat Chat support is available

A few key points

- **Courtesy and mutual respect will be shown by all.**
- Work sessions outside of class between classmates are highly encouraged.
- Do not hesitate to ask me for suggestions or to inquire about your progress in the class.
- Absolutely no cheating or plagiarism will be tolerated in this class.
- Bring your laptop to class daily.
- Asking questions in class are highly encouraged.
- All pagers, cell phones and other unauthorized electronic gadgets must be turned off.
- Disruptive behaviors (arriving late, excessive talking, etc) will not be tolerated.

Handwritten Problem (HWP): Included in this category are group accountability and written work completed in class. Perfect attendance will enable success in this area.

Homework: Homework assignments will be assigned on weekly basis on Hawkes Learning. These assignments will primarily emphasize skill and drill exercises based on topic discussed in class. The homework will be due on weekly basis. Late submission will attract partial credits.

Quizzes: There will be 6 short MCQ quizzes on Tuesdays. Problems will be similar to assigned homework problems if not the same. Expect 20 minutes of class time for the quizzes. At the end of the semester, your lowest quiz score will be dropped.

Tests: There will be 3 tests given in class as indicated on the class calendar. Included on tests will be questions asking you to solve problems, explain processes and write valid conclusions for your results. No Test will be dropped.

Final Exam: The **comprehensive** final exam will be in class on the date and time noted on the university calendar.

Expectations: My expectations are fairly simple and direct. I expect you to participate fully in the class and in your own learning. Collaborative learning in all its forms (group homework, study groups, etc.) is expected. You are not in this alone. I expect you to be in class and to complete all assignments within a given time. All homework assignments are due Friday. **There will be no make-up test or exams. In cases of emergency, you may call me before class time and something may be arranged.**

Each problem will be graded as follows with possible of 5 points total when asked to show work.

Points Work

- 0 No attempt to do the problem.
- 1 Restating the problem, drawing a picture...
- 2 Some correct ideas.
- 3 Half correct ideas.
- 4 Mostly correct ideas.
- 5 Perfection.

COURSE EVALUATIONS

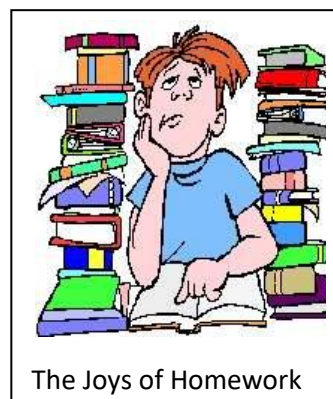
Homework	20%
Quiz	15%
Handwritten Problems	15%
Test 1	15%
Test 2	15%
Final Exam	20%

Grades will be weighted as follows:

GRADE SCALE

The following scale will be used to determine your final grade:

A 93-100	C+ 75-79
A- 90-92	C 70-74
B+ 87-89	C- 65-69
B 84-86	D 55-64
B- 80-83	F <55



COURSE CALENDAR

See below for the summary tentative course schedule and class calendar of assignments and their due dates.

Week	Date	Class Activities	Actions / Due Dates
1	Aug 23	1.3 and 2.1 Estimates, Set notation	Wk1Hwk & HWP1Due
2	Aug 30	2.2 & 2.3 Subsets, Venn and Set operations	Wk2Hwk & Quiz1 Due
3	Sept 6	2.4 Applications and Surveys	Wk3Hwk & HWP2 Due
4	Sept 13	3.1 & 3.2 Logic, negations, truth tables	Wk4Hwk & Quiz2 Due
5	Sept 20	3.3 Logical equivalence and DeMorgan's	Wk5Hwk & HWP3 Due
6	Sept 27	7.1 Intro Probability	Wk6Hwk & Test1 Due
7	Oct 4	7.2&3 Addition and Multiplication Rules Prob.	Wk7Hwk & Quiz3 Due
8	Oct 11	7.4 &7.5(ec) Combinations and Permutations	Wk8Hwk & HWP4 Due
9	Oct 18	1.1 Data graphs, 8.1 Measures of center	Wk9Hwk & Quiz4 Due
10	Oct 25	8.2 Measures of dispersion	Wk10Hwk & HWP5 Due
11	Nov 1	8.3 Measures of relative position	Wk11Hwk & Quiz5 Due
12	Nov 8	8.4 & 8.5 Normal Distributions	Wk12Hwk & Quiz6 Due
13	Nov 15	4.1-4.4 Rates, Ratios, Proportions & Applications	Wk13Hwk & Test2 Due
14	Nov 22	Thanksgiving Holiday Week	No Class
15	Nov 29	Review for Finals	HWP6 Due
16	Dec 6	Finals Week	Finals Due

OTHER POLICIES

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. <https://ds.gmu.edu/>

Incomplete: There will be **no** incomplete in this class unless it is under extreme circumstances, which can best be discussed with the student's academic adviser.

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.

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-center-hours-and>

Additional Resources/Student Services:

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

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