

## GEORGE MASON UNIVERSITY COURSE SYLLABUS

**Instructor:** Emmanuel Addo

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

**Virtual Class Hours:** Tuesdays - synchronously / Thursdays - asynchronously

**Virtual Office Hours:** Fridays 8:00AM – 10:00AM through Blackboard Collaborate Ultra

**Email:** eaddo2@gmu.edu

**Course:** Quantitative Reasoning MATH 106 – 009

**Class Time:** TR 5:55PM – 7:10PM

**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.

**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. Since this course is fully online, it really does not matter what calculator they use.

**Computer Requirement:** You will need an internet access and up-to-date browser, operating system usually java which works best with Internet Explorer or Mozilla or Chrome for windows and safari for MAC and Adobe Acrobat Reader software on your computer.

You can download Java software at [www.java.com/en/download/index.jsp](http://www.java.com/en/download/index.jsp) and Adobe software at <http://get.adobe.com/reader/>.

**Lectures:** Recorded video lectures (and class notes) will be posted with detailed power point periodically on Blackboard.

**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](http://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](mailto:support@hawkeslearning.com)

**Chat:** [www.hawkeslearning.com/chat](http://www.hawkeslearning.com/chat) Chat support is available

### COURSE STRUCTURE

This course is conducted entirely online, which means you do not have to be on campus to complete any portion of it. You will participate in the course using Hawkes Learning and Blackboard tools only.

### COURSE PARTICIPATION POLICY

Participation is essential to your success in this class. In distance education courses you are required to participate just as if you were in a face-to-face course. This means that in order to get full credit for participation, you will have to complete all assignments both on Blackboard and

Hawkes Learning on a timely basis. Consistent failure to participate in class will result in poor performance in the course.

### COURSE ASSIGNMENTS

**Homework:** Homework assignments will be assigned on weekly basis through Hawkes Learning and the accumulated grades will be transported to Blackboard periodically. These assignments will primarily emphasize skill and drill exercises based on topic discussed in class.

**Handwritten Problems:** Included in this category will be questions asking you to solve problems, explain processes and write valid conclusions for your results. Scan and saved it as pdf then upload it to Blackboard under the *Assignments* folder.

**Quizzes:** There will be short quizzes after completing two or more sections and their corresponding homework assignments.

**Projects:** Included in this category are 2 mini-projects to re-enforce the understanding of key concepts. Assignments may be started in the virtual class, but you may be asked to finish them later.

**Tests:** There will be 3 tests will be administered through Blackboard or Hawkes Learning as indicated in the class calendar below.

**Final Exam:** The comprehensive final exam will be administered through blackboard. There would be two parts to the finals; section A which consists of Multiple Choice Questions and section B which is application related problems which require handwritten step-by-step approach to problem solving.

### COURSE CALENDAR

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

#### Class Calendar

Homework Due Dates	Sectional Topics As A Reading Guide	Actions
Week 1 Due Aug 28	1.3 and 2.1 Estimates, Set notation	Quiz 1
Week 2 Due Sept 4	2.2 & 2.3 Subsets, Venn and Set operations	Quiz 2
Week 3 Due Sept 11	2.4 Applications and Surveys	Handwritten Problem 1
Week 4 Due Sept 18	3.1 & 3.2 Logic, negations, truth tables	Mini-Project 1
Week 5 Due Sept 25	3.3 Logical equivalence and DeMorgan's	Test 1
Week 6 Due Oct 2	4.1-4.3 Rates, Ratios, Proportions and %	Quiz 3
Week 7 Due Oct 9	4.4 Applications of % and 7.1 Intro Probability	Handwritten Problem 2
Week 8 Due Oct 16	7.2&3 Addition and Multiplication Rules Prob.	Quiz 4
Week 9 Due Oct 23	7.4 & 7.5(ec) Combinations and Permutations	Test 2
Week 10 Due Oct 30	1.1 Data graphs, 8.1 Measures of center	Quiz 5
Week 11 Due Nov 6	8.2 Measures of dispersion	Quiz 6
Week 12 Due Nov 13	8.3 Measures of relative position	Test 3
Week 13 Due Nov 20	8.4 & 8.5 Normal Distributions	Mini -Project 2
Week 14	Final Exam review	

## COURSE EVALUATIONS

	Homework	15%
	Quiz/Project/Handwritten Problem	20%
<u>Grades will be weighted as follows:</u>	Test 1	15%
	Test 2	15%
	Test 3	15%
	Final Exam	20%

## COURSE COMMUNICATION

### ANNOUNCEMENTS

Announcements will be posted in BLACKBOARD and copy will be sent to your Mason's email on regular basis. Please make certain to check them regularly (at least once a day), as they contain any important information about upcoming projects or class concerns.

***All assignments are submitted through Hawkes Learning or Blackboard***

### QUESTION FORUM

In online courses it is normal to have many questions about things that relate to the course, such as clarification about assignments course materials, assessments, use of software, inability to download or get access to a particular platform. Please post these on QUESTION FORUM which can be access using ***Discussion Board***. You are encouraged to give answers and help each other for possible consideration. If you have personal matters to share with the instructor relating to performance, feedback on assignments and problems you are having in the class, use email.

### FEEDBACK

During the week (M–F) I will check email and monitor Blackboard and Hawkes Learning several times in the day. If you have concern and send me a message, you can expect response within 24 hours. For emergency, do sent me a text.

## COURSE DUE DATES

### IMPORTANT DATES

The due dates for your assignments can be found in the ***class calendar*** above. Please refer to it on frequent basis. In addition, I will post reminders prior to the due dates in the weekly announcements. All assignments are due at **11:59 PM** of the **DUE DATE**.

### ASSIGNMENTS DATES

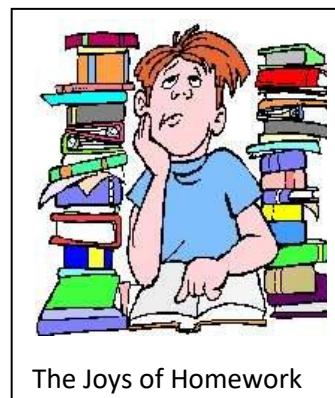
Each week you will need to complete the following:

- Read the listed sections, power point slides and attempt assignments in Blackboard/Hawkes Learning.
- Revisit Lectures or listen to the recorded lectures before attempting the Homework Assignments.
- Complete weekly homework assignments by the end of each due date.
- Complete each lesson quiz in Blackboard/Hawkes before moving on to next week materials.
- Attempt Quizzes/Handwritten Problems/ Mini-Project within **48 hours** of the assigned date.
- Attempt each Test within **72 hours** of the assigned date.

## 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



## 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/](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/>