

George Mason University

MATH 106 014 Quantitative Reasoning Fall 2022

Mondays & Wednesdays, 12:00 – 1:15

Music/Theater Building 1007

Instructor: Stephanie Gaffney

Email: sgaffne@gmu.edu (Note: Students must use their Mason email to contact me)

Phone: 772-501-5546 (only use in case of emergency)

Office: Exploratory Hall 4309 (math adjunct offices, knock on the door if it's not open)

Office Hours: Mondays & Wednesdays: 10:45 – 11:45

Text: *Viewing Life Mathematically*, 2nd edition by Denley. **Your course fees paid for access to the eBook and online homework system. YOU DO NOT NEED TO SPEND ANY MORE MONEY ON ANY MATERIALS (except a calculator) FOR THIS CLASS.** You may choose to also purchase the printed book from the bookstore, but most students are fine without it. Follow prompts for HAWKES on Blackboard.

Calculator: A scientific calculator is required (personal recommendation: TI-30XIIS). A graphing calculator is acceptable, but not necessary. Cell phones and laptops are **NOT** acceptable calculators and may not be used on in-class quizzes or exams.

Course Description: Quantitative skills for the real world. Topics include critical thinking, modeling by functions, graphs, growth, scaling, probability and statistics.

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.

Class Procedures

Attendance: I take attendance at each class meeting. Attendance is not part of your grade; however, I take attendance into consideration for borderline grades at the end of the semester. You will also need to be present to participate and receive a grade for in-class activities and quizzes.

Participation: I encourage your participation in class. The more you are willing to participate, especially by asking and answering questions, the more you will likely learn and take away from the class.

Electronics: Regarding electronic devices (such as laptops, cell phones, etc.), please be respectful of your peers and your instructor and do not engage in activities that are unrelated to class. Such disruptions show a lack of professionalism.

Announcements: If the campus closes, or if a class meeting needs to be canceled or adjusted due to weather or other concern, students should check Blackboard for updates on how to continue learning and for information about any changes to events or assignments.

Academic Integrity: The integrity of the University community is affected by the individual choices made by each of us. Mason has an Honor Code with clear guidelines regarding academic integrity. Three fundamental and rather simple principles to follow at all times are that: (1) all work submitted be your own; (2) when using the work or ideas of others, including fellow students, give full credit through accurate citations; and (3) if you are uncertain about the ground rules on a particular assignment, ask for clarification. No grade is important enough to justify academic misconduct. *Some kinds of participation in online study sites violate the Mason Honor code: these include accessing exam or quiz questions for this class; accessing exam, quiz, or assignment answers for this class; uploading of any of the instructor's materials or exams; and uploading any of your own answers or finished work.*

Disability Services: Disability Services at George Mason University is committed to providing equitable access to learning opportunities for all students by upholding the laws that ensure equal treatment of people with disabilities. If you are seeking accommodations for this class, please first visit <http://ds.gmu.edu/> for detailed information about the Disability Services registration process. Then please discuss your approved accommodations with me. Disability Services is located in Student Union Building I (SUB I), Suite 2500. [Email:ods@gmu.edu](mailto:ods@gmu.edu) | Phone: (703) 993-2474

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.

Religious Holidays: GMU is accommodating to all religious holidays observed by its students and faculty. It is each student's responsibility during the first two weeks of the semester to inform instructors the dates of any major religious holidays on which the student will be absent or unavailable due to religious observances. <https://ulife.gmu.edu/religious-holiday-calendar/>

Coursework

Hawkes Certify & Quizzes: We will be using Hawkes Learning for this course.

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

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 24/7.

In-Class Quizzes: You will periodically have brief in-class quizzes. I will announce quiz dates ahead of time in class and/or on Blackboard. If you are absent, you will receive a zero for that particular quiz; however, I will be dropping your lowest quiz score.

Activities: Your activity grade will consist of various in-class activities and written homework assignments.

Exams: You will have 4 mid-term exams. There are no makeups for exams. I will be dropping one exam score. If you miss an exam for any reason that will count as your dropped exam.

Final Exam: The final exam will be cumulative, but identical in format to the other exams. The final exam is given according to the registrar's final exam schedule. No exceptions will be made to the final exam schedule. Our final exam will be **Monday, December 12, 10:30am – 1:15pm**.

Additional Assistance: You are more than welcome to come see me during office hours if you need additional assistance outside of class time. You may also email me with questions.

The Math Tutoring Center is available to assist you. Check the website for hours of operation. <https://science.gmu.edu/academics/departments-units/mathematical-sciences/math-tutoring/tutoring-center-hours-and>

Grading

Grades will be calculated as follows:

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| Hawkes Certify (24 assignments) | 10% |
| Hawkes Quizzes (11 quizzes, drop lowest) | 10% |
| In-Class Quizzes (7 quizzes, drop lowest) | 10% |
| Activity (# TBD) | 10% |
| Exams (4 exams, drop lowest) | 45% |
| Final Exam | 15% |

Grading Scale: A: 90-100%; B: 80-89%; C: 70-79%; D: 60-69%; F: below 60%. + or – may be assigned to the grade for the upper or lower 2 points in each range.