



Syllabus

Course Title: Mathematics in Context

Mathematics in Context: MGF 1131, CRN 85536, Fall 2026

3 Credit Hours, 3 Contact Hours

Prerequisite: Grade of "C" or higher in MGF 1130

Contact Information

Instructor

Mr. Keith Owens
Professor
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Office Location: SUW 279

Office Hours: Posted in Canvas and at office

Response Time:

Email – Within 1 business day

Voicemail – Within 1 to 3 business days

Division Chair

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Course Information

Catalog Description:

Through this course, students will experience the practicality of mathematics in a global society. Students will engage in the applications of tools and techniques of mathematics in a variety of contextual situations from everyday life. This course is appropriate for students in a wide range of disciplines/programs. Note: This is not a General Education Core course and will not meet the math requirement for AS degree-seeking students.

Student Learning Outcomes:

- SLO1. Apply mathematical models to civically contextual situations (e.g. stocks, finance, voting, population dynamics, etc.).
- SLO2. Organize, visualize, and model data in a meaningful way.
- SLO3. Analyze and interpret representations of data to draw reasonable conclusions.
- SLO4. Engage in ways of thinking that may involve sample size, counting strategies, chance, ratios and proportions.

Course Materials & Resources:

1. **Required Textbook:** MyLab Math with Pearson eText for *Thinking Mathematically*, 8th Edition, Robert F. Blitzer, Pearson, © 2023, ISBN 9780137551224
2. **TI-83 or TI-84 Graphing Calculator:** A graphing calculator is required. If you wish to use a calculator besides the TI-83 or TI-84 on your tests, you must receive prior approval from the instructor. *Cell phones and computers may not be used as calculators.* Each student is expected to have his/her own calculator.

Delivery Method:

This is a web-based course. All online courses at GCSC utilize the Canvas Learning System. Students should read all information presented in the Canvas course site and should periodically check for updates—at least every 48 hours. Rather than attending live lectures, students will receive instruction via course videos, which are embedded in Canvas.

Remember: This course is not one in which students may work at their own pace. Each week there are learning modules, assignments, online lectures, online discussions, and/or exams with due dates. Refer to the schedule within this syllabus and within Canvas for more information.

Each test must be taken **on or before the due date, in a proctored environment**. There are several testing options:

- **Option 1 (preferred):** Students who live in Bay, Gulf, and Franklin counties are expected to take their tests at the Panama City campus Testing Center or at the Port St. Joe Gulf-Franklin campus.

- **Option 2:** Students may test at an alternative testing center or with a private proctor. This option is subject to approval by the Testing Center and the instructor and must be requested well in advance. Proctors not associated with Gulf Coast State College might charge fees, and the student would be responsible for those fees.
- **Option 3:** For students who cannot go to a testing center, internet-based proctoring at home via ProctorU is permitted. An appointment via the ProctorU website is required, and the student would be responsible for all ProctorU fees. Check the ProctorU website for minimum technical requirements.

Student Expectations

In this course, communication and feedback might occur through various channels, including GCSC email, Canvas Inbox, Canvas Announcements, Canvas Discussions, Microsoft Teams or Zoom, assignment feedback, and instructor office hours. Review the statements below so that you understand the expectations for communication.

As a student at Gulf Coast State College, you are expected to:

- **Adhere to Course Guidelines:** Follow the guidelines detailed in the course syllabus, along with any additional instructions provided by the instructor. This includes understanding and complying with the course objectives, grading criteria, and academic policies.
- **Maintain Regular Contact:** Keep in touch with your instructor and classmates via your GCSC email or other designated communication channels. Regular contact helps clarify doubts, share ideas, and foster a collaborative learning environment.
- **Active Participation:** Engage actively in class discussions and submit assignments on time. Your active participation is crucial for your academic success and contributes to a vibrant learning community.

As your instructor, my commitment to you is to:

- **Provide Timely Feedback:** I will review and provide feedback on your assignments and submissions promptly. My goal is to help you understand your strengths and areas for improvement, which is crucial for your academic growth.
- **Respond Via Canvas Inbox:** I will respond to your emails or messages within 24-48 hours (excluding weekends), unless otherwise noted. I understand the importance of clear and timely communication in addressing your questions and concerns.
- **Post Regular Announcements:** To keep you updated and help you manage your time effectively, I will send out weekly reminders via announcements and/or email. These reminders will include important dates, upcoming assignments, and any changes to the course schedule.
- **Maintain Weekly Office Hours:** I will maintain regular weekly office hours, but I can also be available by appointment. This is to ensure I'm available for any questions or concerns that may come up during the week.

Course Schedule

The semester is divided into 4 units. The contents of each unit, referenced by textbook sections, are given below. Typically, students complete two to three sections per week during a regular Fall or Spring semester. (The pace is faster during a compressed Summer term.) For each section, students will be assigned homework problems and an unproctored quiz, all of which are found within the MyLab courseware. A proctored unit test, also within the MyLab courseware, will be given at the end of each unit. At the end of the semester, students may re-take one of their unit tests.

A detailed schedule, which includes testing dates, will be posted in Canvas on the first day of class.

Unit 1

Section 8.3: Simple Interest

Section 8.4: Compound Interest

Section 8.5: Annuities, Methods of Saving, and Investments

Section 8.6: Cars

Section 8.7: The Cost of Home Ownership

Section 8.8: Credit Cards

Unit 2

Section 11.1: The Fundamental Counting Principle

Section 11.2: Permutations

Section 11.3: Combinations

Section 11.4: Fundamentals of Probability

Section 11.5: Probability with the Fundamental Counting Principle, Permutations, and Combinations

Section 11.6: Events Involving Not and Or; Odds

Section 11.7: Events Involving And; Conditional Probability

Section 11.8: Expected Value

Unit 3

Section 12.1: Sampling, Frequency Distributions, and Graphs

Section 12.2: Measures of Central Tendency

Section 12.3: Measures of Dispersion

Section 12.4: The Normal Distribution

Section 12.5: Problem Solving with the Normal Distribution

Section 12.6: Scatter Plots, Correlation, and Regression Lines

Unit 4

Section 14.1: Graphs, Paths, and Circuits

Section 14.2: Euler Paths and Euler Circuits

Section 14.3: Hamilton Paths and Hamilton Circuits

Section 14.4: Trees

Grading

GCSC Grading Scale

All grades will be posted in the student grade book in Canvas and will be assigned according to the following scale:

A	90%-100%
B	80%-89%
C	70%-79%
D	60%-69%
F	59% and below

Calculation of Grades

The average of the tests will count 75% of the grade. Additionally, the average from the assigned homework will count 15%, and the average from the assigned section quizzes will count 10%. At the end of the semester, each student, if desired, may retake **one** unit test. A missed test may be used as that one retake. The college grading scale is: A (100-90), B (89-80), C (79-70), D (69-60), and F (59-0).

Course Policies

Accessibility Statement

Gulf Coast State College supports an inclusive learning environment for all students. If there are aspects of the instruction or design of this course that hinder your full participation, reasonable accommodations can be arranged. Prior to receiving accommodations, you must register with Student Accessibility Resources. Appropriate academic accommodations will be determined based on the documented needs of the student. Please visit [GCSC's Student Accessibility Resource \(SAR\) webpage](#) to learn more. For information regarding the registration process, email sar@gulfcoast.edu or call 850-747-3243.

Attendance Policy

As this is an online class, there is no attendance policy *per se*. However, students are expected to make regular progress with at-home assignments and must meet all testing deadlines. **The instructor reserves the right to withdraw students who have missed the first two tests without permission.**

Instructors will monitor assignment submission at the beginning of each semester. If you submit no assignments during this period, you may be withdrawn from the course. You will be

financially responsible for the course and a "W or NS" will appear on your transcript. Withdrawal from a course may also have implications for financial aid.

Make-Up Work Policy

Students who miss a test must contact the instructor as soon as possible. If you miss a unit test and you have a valid, documented excuse (for example, illness with a doctor's note), the instructor may, at his/her discretion, permit a make-up test. If only one unit test has been missed, then that missed test counts as the lowest unit test and may be taken at the end of the semester as the one allowed "re-take."

Withdrawal Policy

Two withdrawals are permitted per credit course. After that, a grade will be assigned. Please be concerned about withdrawals. When admitting students into certain programs, universities may calculate withdrawals as grades. It is your responsibility to verify the effects of enrollment and/or withdrawal upon your financial assistance (financial aid, scholarships, grants, etc.). There are two kinds of withdrawals---student and administrative.

- *Student Withdrawal (W1)* - Students wishing to withdraw must complete the online Student Withdrawal Form before the scheduled withdrawal deadline as published in the College catalog. Student withdrawals initiated prior to the scheduled withdrawal deadline will be recorded as a grade of "W." The withdrawal deadline for an off-term or condensed term is one week after midterm.
- *Administrative Withdrawal (W2)* – A faculty member may withdraw a student up to the published withdrawal deadline for violation of the class attendance policy in which case the student will receive a grade of "W." The withdrawal deadline for an off-term or condensed term is one week after midterm.

Students cannot withdraw from developmental studies courses (college-preparatory classes) after the drop/add period without written permission from their instructor and/or their academic advisor.

Academic Integrity

Honest participation in academic endeavors fosters an environment in which optimal learning can take place and is consistent with the college's mission. Academic misconduct, including cheating or plagiarism, is destructive to the spirit of an educational environment. GCSC professors report every instance of student academic misconduct to the college for inclusion on the student's records.

Most course syllabi include an academic honesty policy and the consequences for violating this policy. Familiarize yourself with course policies regarding authorized or unauthorized use of AI to avoid the pitfalls of academic dishonesty.

The following definitions will apply:

"Cheating"

includes but is not limited to use of any unauthorized assistance in taking quizzes, tests, or examinations; dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; the acquisition without permission of tests or other academic materials belonging to a member of the College's faculty.

"Plagiarism"

includes, but is not limited to, the use by paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgment as well as the purchase of papers or projects. It can also include overuse of an editing program like Grammarly or submitting work written by an Artificial Intelligence (AI) generator like ChatGPT. Make certain to consult your course syllabi for your instructor's guidelines of AI material.

"Self-plagiarism"

occurs when a student submits the same or considerably similar document to fulfill requirements in different classes. For example, if a student submits a term paper in Religion they originally wrote for an English class, this is self-plagiarism. Once a paper receives a grade in one class, it cannot be submitted again for another class.

"Generative Artificial Intelligence (AI)"

is technology that uses machine learning to create new content, such as text, images or code, based on user input. These systems are trained on vast amounts of data, including large language models and image or code generators. Common examples include ChatGPT, GitHub, Copilot, Google Gemini, Perplexity, and the Grammarly AI function.

Sanctions for incidences of academic misconduct, depending on the severity of the incidence and/or its repetition, may range from receiving an F grade (or 0) for the test, assignment, or activity, to failure of the course, to suspension or dismissal from the college.

Classroom Recording

In accordance with federal and state privacy laws, students may record class lectures for their own personal educational use, in connection with a complaint to the college, or as evidence in internal or external legal proceedings. Students may not publish or upload the recordings or any components thereof without the knowledge and written permission of the faculty member. Failure to obtain permission to publish could lead to the students' having to pay damages, attorney fees, and court costs. For more information about what can be recorded, please see the guidelines in the GCSC Student Handbook.

Generative Artificial Intelligence (AI) Policy

The use of generative AI tools in academic work requires clear guidelines to maintain academic integrity. Please review the policy selected for this course regarding the use of AI tools such as ChatGPT, Copilot, Grammarly's AI features, and similar platforms for assignments, research, and other coursework.

See the student handbook for further information. Students with questions about acceptable use should consult their instructor.

Prohibited Use of AI

The use of AI-generated content is strictly prohibited in all assignments, coursework, and throughout all stages of the work process, such as brainstorming, outlining, or drafting. This includes but is not limited to, tools such as ChatGPT, Copilot, and Grammarly's AI function. Use of AI tools will be treated as a violation of academic integrity and may result in penalties, including a zero on the assignment and additional disciplinary actions as outlined in the college's academic integrity policy.

Anti-Discrimination Policy

Gulf Coast State College does not discriminate against any person in its programs, activities, policies or procedures on the basis of race, ethnicity, color, national origin, marital status, religion, age, gender, sex, pregnancy, sexual orientation, gender identity, genetic information, disability, or veteran status. All questions or inquiries regarding compliance with laws relating to non-discrimination and all complaints regarding sexual misconduct or discrimination may be directed to Amanda Reed, Executive Director of Human Resources/Title II/504/Title IX Coordinator and Employment Equity Officer, Gulf Coast State College, 5230 W. US Highway 98, Panama City, FL 32401; 850-769-1551, ext. 3516. Rules, policies, fees, and courses described in this catalog are subject to change without notice.

Syllabus Policy

For any syllabus posted prior to the beginning of the term, the instructor reserves the right to make minor changes prior to or during the term. The instructor will notify students via e-mail or Canvas announcement when changes are made in the requirements and/or grading of the course.

Student Support Resources

Gulf Coast State College is committed to providing you with the resources you need for success as a student and beyond. View all the academic and student support resources provided at GCSC on the [Student Services web page](#).

Course Technology & Support

To successfully participate in this online course, students must have basic computer and digital information literacy skills and meet the following technology requirements:

- **Computer:** Up-to-date web browser that supports the Canvas learning management system; please refer to the system requirements for compatibility and information on using the Canvas app on mobile devices.
- **Internet Speed:** Minimum bandwidth of 8 Mbps upload/download speed to effectively engage in online activities and access multimedia.
- **Office 365 software:** Available for free download through GCSC Information Technology Services (ITS).

If you need technical support, contact the ITS Help Desk, available 24/7 at (850) 913-3303.

Additional Encouragement and Resources

Study Strategy: Studying requires discipline, tenacity, and hard work. View this course as a job. During each week of a regular Fall or Spring semester, students should expect to view about 2½ hours of course videos and to spend at least 6 hours working the homework and quiz sets. (These amounts of time increase for compressed summer terms.) Attentiveness to detail and alertness are essential. Students are expected to take responsibility for their learning.

Available help:

1. **Your Instructor:** Your instructor has dedicated office hours during which he is available either face-to-face or virtually. Students having difficulty are strongly encouraged to contact the instructor for additional help. Students who contact the instructor via e-mail can expect a reply within 1 business day. Voicemail will be returned within 1 to 3 business days.
2. **Math Lab:** Math tutors are available face-to-face and virtually via the Math Lab. There is no charge for Gulf Coast State College students enrolled in this course. See the GCSC Math Lab website for hours of operation.
3. **Counseling Center:** The Counseling Center is located on the first floor of Student Union East.
4. **Communication through Canvas:** Students are encouraged to email one another through Canvas and to organize study groups that meet virtually or in public locations. Students should NOT invite people they do not know well to their homes.