

MAC1105 - College Algebra

Summer 2024 Online Syllabus

The information in this syllabus is preliminary and subject to change before the term begins.

Contact Information

The course home page is located in [Canvas](#).

The Inbox in Canvas is the preferred method for communication for the class.

Instructor

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Office Hours: TBD

Introduction

Course Description and Objectives

In this course, students will develop problem solving skills, critical thinking, computational proficiency, and contextual fluency through the study of equations, functions, and their graphs. Emphasis will be placed on quadratic, exponential, and logarithmic functions. Topics will include solving equations and inequalities, definition and properties of a function, domain and range, transformations of graphs, operations on functions, composite and inverse functions, basic polynomial and rational functions, exponential and logarithmic functions, and applications. You have until the end of the drop/add period to change your schedule.

Learning Outcomes

The following outcomes will be assessed using the course assignments and quizzes. At the end of this course you will be able to...

- solve an equation or an inequality using an appropriate technique.
- define and describe functions, their properties, and graphs.
- manipulate functions to simplify expressions and find new functions.
- use transformations to write an equation for a function and to graph a function.
- model and solve real world problems using functions.

Prerequisite, Course Sequence, and Credit

This course covers 3 credit hours of [General Education Mathematics](#) (M) requirements. You must complete the ALEKS placement exam prior to registering for this course. This course assumes prior knowledge of intermediate algebra (Algebra 2) and the ability to do arithmetic without a calculator. This course is designed for students who intend to take a calculus course, either MAC2311 and MAC2233. It will prepare you for the precalculus MAC1140 and MAC1147 courses, which will then lead to calculus.

If you are taking this course for general education credit or the pure math portion of the Math requirement, but

you do not need precalculus for your major or as preparation for calculus, you should consider taking MGF1130. For more information on math courses and math advisors go to the [Math Department website](#). A minimum grade of C (not C-) in MAC1105 satisfies three hours of the general education requirement and also satisfies the pure math portion of the state Writing/Math requirement.

Required Materials

The course text will be made available for free in Canvas. There is no textbook purchase required.

- [College Algebra](#), published by OpenStax
- Supplemental notes by Carmichael

E-Learning and Canvas

[Canvas](#) is the central website for our class. Log in with your Gatorlink credentials. All class announcements, assignments, lecture outlines, and other information will be posted there. You are responsible for verifying that your grades are accurate.

Your grades for assignments will also be posted on Canvas. I am always happy to discuss the content of an assignment, but grade issues must be dealt with in a timely manner. **You have one week after a score has been posted to contact your instructor/TA if you believe there has been a grading or a recording error.** Grades are not eligible to be changed after that.

Calculator Policy

A basic calculator will be provided on exams. No other calculator or electronic device is allowed on exams. A calculator will sometimes be needed to complete homework questions. [Desmos](#) is a good online calculator.

People Who Can Help

- **Your instructor** during office hours.
- Academic Resources offers free online tutoring on weekdays. Go to the [Academic Resources Website](#) to find the hours. You can also request free one-on-one tutoring.
- You can check the [Tutoring Website](#) for other resources.
- For help resolving technical issues (computer problems, Gatorlink, etc.) contact the [UF Computing Help Desk](#) online, or by phone 352-392-HELP.
- Your well-being is important to the University of Florida. The [U Matter, We Care](#) initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

Success

Success in MAC1105 comes from your effort and attitude. Spending time and energy to complete the class materials is critical. Research has shown that it is more effective to do a small amount of math every day rather than a large amount in a single day.

Most of the learning you will do in this course will come from the work you do. Mathematics is not a spectator sport. Watching someone solve a problem is very different from being able to solve it yourself. In order to succeed you must be willing to practice until you can answer questions independently.

Course Elements

Structure

This course is a mastery-based class, which means that you must show your mastery of a module before moving on to the next. Your grade in the course is determined by how many modules you master by the end of the semester.

Modules

The content of this course is divided into modules. There are eight core modules you must master in order to pass the course. Once you have completed these, there are two tracks of advanced modules available that you can choose between. Completing advanced modules is required to earn a grade higher than C .

Pacing

Unlike a traditional course, the class is mostly self-paced. You can take the time you need to practice and solidify your understanding. While there is no minimum pace, there is a maximum pace of two modules per week. Two new modules will open each week, but you do not need to complete them that week! You may proceed through them at your own pace, but you must complete the eight core modules to earn a passing course grade.

Lecture

Each module's content is covered in prerecorded lectures and the textbook. You should view and read the content before attempting any assignments.

Assignment

After you have read and watched the content for a module, then you are ready for practice. Each topic has a set of practice problems for you to complete in Canvas. These assignments are the most important part of the course. Most of the learning you do will come from doing these practice problems. These assignments will assess your critical thinking and communication of the lecture content.

Mastery Quizzes

Once you have practiced it is time to show what you have learned! Each module has a mastery quiz that will unlock once when you finish the assignment. Mastery quizzes are proctored assessments that you must do on your own. They are subject to the Student Honor Code.

- The mastery quiz for a topic will open a few days after the lecture and assignment.

- You don't have to be perfect to show mastery. A score of 80% is considered passing and sufficient to move on to the next topic.
- You may take a mastery quiz as many times as necessary, but after your third attempt you will need to contact your instructor to unlock more.
- Quizzes will be monitored and recorded using the HonorLock program. In order to use HonorLock you will need a web cam, the Google Chrome browser, and an isolated space where you can take your test.
- You must remain in one location the entire time you are taking a quiz. Moving to a different location during a quiz is a violation of the assignment rules.
- You should have **only** your UF Gator One card, a pen or pencil, and blank scratch paper during a quiz.
- A basic calculator will be provided by the Honorlock system. All electronic devices, including phones, must be put away. Using or possessing any such device during a quiz is a violation of conduct rules, regardless of whether or how it is used.

Final Exam

This course will have a comprehensive final exam covering the content of the eight core modules. Your performance on the final can raise or lower your overall grade by $\frac{1}{3}$ letter.

Extra Practice

In addition to the module assignments that you must complete, some modules will have extra practice assignments that utilize the Xronos software. These are not required, but will present you with different problem styles, perspectives, and complexity that can help increase your understanding.

Grading

Course Grade

This course is not graded like a traditional class. Your final grade in the course is primarily determined by the number of modules you master. There are 8 core modules you must master in order to earn a passing grade. The final exam will be proctored like the mastery quizzes and assesses your critical thinking and communication of the lecture content.

Base Letter Grade Thresholds

- **A** 8 core modules, 4 advanced modules
- **B** 8 core modules, 2 advanced modules
- **C** 8 core modules
- **D** 6 core modules

Final Exam

Your performance on the final exam can raise or lower your grade by $\frac{1}{3}$ letter grade.

- A score of 80% or higher on the final exam will raise your grade by $\frac{1}{3}$ letter, so a B would become a B+.
- A score below 60% on the final exam will lower your grade by $\frac{1}{3}$ letter, so a B would become a B-.

Note that a grade of C- does **not** give Gordon Rule or General Education credit. A grade of C or better is required to advance to the next course.

For information on dropping courses and withdrawals go to [this website](#)

For information about UF grades and grading policies go to [this website](#)

Make-up Policies

All makeup work must be completed before the final exam.

- **Absences and Make-up Work** - Requirements for class attendance and make-up exams, assignments, and other work are consistent with university policies that can be found at [this website](#).
- **Extra Credit** - No makeups.

Incomplete/Concerns/Complaints

- **Incomplete** - A grade of I (incomplete) will be considered only if you meet the [Math Department criteria](#). If you meet the criteria you must contact your coordinator before finals week to be considered for an I. An I only allows you to make up your incomplete work, not redo your work.
- **Concerns/Complaints** - If you have concerns/complaints about the course you may voice your concerns to the course coordinator, the Mathematics Department Associate Chair, and then the [University Ombuds](#).

Instructor Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via [GatorEvals](#). Guidance on how to give feedback in a professional and respectful manner is available at [this website](#). Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via [this website](#). Summaries of course evaluation results are available to students on the [public results website](#).

Additional Information

Academic Honesty

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." [The Honor Code](#) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Courtesy In Communication

In all communication with your instructor, teaching assistants, and classmates you are expected to be respectful and follow proper [netiquette](#).

Privacy and Data Security

This courses uses the MyOpenMath software for assignments. MyOpenMath does not sell or transmit personal data and deletes such information after an appropriate amount of time.

Students With Disabilities

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the [Disability Resource Center](#). It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Class Recordings

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor. Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section.

Schedule

- May 12 Module 1 and Module 2 open
- May 19 Module 3 and Module 4 open
- May 26 Module 5 and Module 6 open
- Jun 2 Module 7 and Module 8 open
- Jun 9 Module 9A/9B and Module 10A/10B open
- Jun 16 Module 11A/11B and Module 12A/12B open
- Jun 23 Final exam opens
- Aug 8 Final exam, all other assignments and quizzes close