# MAC1105 - College Algebra
# Summer 2024 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

Name: George Roman
Office: LIT483
Email: g.roman@ufl.edu
Office Hours: TBD

## Introduction

### Course Description and Objectives

MAC1105 (College Algebra) is a review of Algebra designed to prepare students for MAC 1140 or MAC 1147. Content for this course includes: reviewing real numbers and functions, polynomial and rational functions, solving various types of equations, and exploring exponential and logarithmic functions. 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.

- **Content:** You will demonstrate competence in the terminology, concepts, theories, and methodologies used within the discipline. After completing this course students will be able to employ strategies in solving problems involving algebraic functions, exponential and logarithmic functions, and complex numbers.
- **Communication:** You will communicate knowledge, ideas, and reasoning clearly and effectively in written and oral forms appropriate to the discipline. Throughout this course you will formulate and solve mathematical models using algebraic functions, exponential and logarithmic functions, and trigonometric functions.
- **Critical Thinking:** You will analyze information carefully and logically from multiple perspectives, using discipline-specific methods, and develop reasoned solutions to problems. In this course, you will reason in abstract mathematical systems and apply mathematical models using algebraic functions, exponential and logarithmic functions, and complex numbers.

### 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 Patrick 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 if you believe there has been a grading or a recording error.** Grades are not eligible to be changed after that.

## Calculator Policy

No calculator will be permitted on exams. Calculations will be simple enough to do by hand.
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 and in-person tutoring on weekdays. Go to the Academic Resources Website to find the hours. You can also request free one-on-one tutoring.
- 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 and Expectations

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.

Be aware that this is a 6-week course designed to cover a typical 16-week semester's worth of material. You must dedicate an appropriate amount of time each day to complete homework and read suggested material in order to keep up with this pace.

## Course Elements

### Tentative Schedule

- Week 1: Prerequisites, Numbers and Functions, Linear Functions
- Week 2: Linear Functions (cont.), Linear Inequalities
- Week 3: Quadratic Functions, Radical Functions
- Week 4: Radical Functions (cont.), Polynomial Functions
- Week 5: Rational Functions, Exponential and Logarithmic Functions
- Week 6: Exponential and Logarithmic Functions (cont.), Complex Numbers

The schedule may be adjusted slightly as the course progresses. Each topic listed above will typically be covered over the course of 2 to 3 lectures.

### Lecture

You are expected, but not required, to attend each lecture. You are responsible for any material you missed due to an unexcused absence. From time to time, you may be assigned some reading prior to lecture; you are not expected to fully understand material from reading alone, but exposure to course content before the lecture can improve your understanding during the lecture.

### Assignments

Homework problems will be provided on Canvas. As we progress, new assignments will appear to test and strengthen your understanding of recent material. Homework assignments will typically be due within a few days of posting, so pay attention to the listed due dates.

### Quizzes and Exams

At the end of each week, we will have a quiz or exam as detailed in the schedule below. No external resources are permitted on these assessments, as they are designed to show that you have internalized the course material. After each of the first two exams, there will be an opportunity to raise your exam score.

- Jul 05: Quiz 1
- Jul 12: Exam 1
- Jul 19: Quiz 2
- Jul 26: Exam 2
- Aug 02: Quiz 3
- Aug 09: Exam 3

### 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 and difficulty that can help solidify your understanding.

## Grading

### Grading Scale

| Grade | Minimum Required Percentage |
|---|---|
| A | 90% |
| A- | 87% |
| B+ | 84% |
| B | 80% |
| B- | 77% |
| C+ | 74% |
| C | 70% |
| C- | 67% |
| D+ | 64% |
| D | 60% |
| D- | 57% |
| E | Below 57% |

### Assignment Weights

Homework is worth 25% of the final grade, each quiz is worth 7%, and each exam is worth 18%. 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.
- **Exams 1 and 2** - The first two exams will have make-up opportunities, which will be explained during the first lecture following each exam.

### 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.