

MAC1147 Precalculus Algebra with Trigonometry

Summer B 2024

Instructor: Michelle Baker
E-mail: mbaker4@ufl.edu
Office: LIT 417
Office Hours: TBD

Teaching Assistant: Himanshu Yadav
E-mail: yadav.himanshu@ufl.edu
Office: LIT 475
Office Hours: TBD

Lecture: MTWRF Period 3 in FAB 0103
Discussion: TR Period 4 in LIT 0207

Prerequisites A minimum score of 61% on the ALEKS exam or prior MAC1147 credit (or higher) is required.

Course Description This is MAC1147 “Precalculus Algebra with Trigonometry”. This course covers 4 credit hours of General Education Mathematics (M) requirements. In this course you will gain understanding of algebraic functions, coordinate geometry, exponential and logarithmic functions, and trigonometry. This fast-paced course is designed as a review to prepare you for calculus. This course assumes prior knowledge of intermediate algebra (Algebra 2) and trigonometry and the ability to do arithmetic without a calculator.

A minimum grade of C is required for the general education credit.

Course Objectives The goal of this course is to provide the mechanical and conceptual tools necessary to continue on to ‘Calculus 1’ (MAC2311). Alternatively, you can take it over two semesters by taking MAC1140 Precalculus Algebra and then taking MAC1114 Trigonometry. You have until the end of the drop/add period to change your schedule. If your goal is to take MAC2233, then you should consider talking to your advisor about taking MAC1140 instead of this course since there is no trigonometry requirement for MAC2233.

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, or MAC1105. For more information on math courses and math advisors go to the Math Department website.

E-Learning Canvas E-learning Canvas, a UF course management system, is located at <https://elearning.ufl.edu>. Use your Gatorlink username and password to login. All course information including your grade, course homepage, syllabus, lecture videos, office hours, test locations, mail tool, discussion forum, free help information, etc. can be accessed from this site. You are responsible for verifying that your grades are accurate. There is no grade dispute at the end of the semester (see below for the One Week Policy).

Course Materials In this course we will utilize a free online textbook and a free online homework system:
• Textbook: [Openstax Precalculus 2e](#)
• Homework: [MyOpenMath](#)

Calculators Calculators are NOT permitted on quizzes and exams. Please avoid using a calculator on homework as it will not help you prepare for the exams.

Cell Phones	Cell phones and similar devices must be turned off (not on vibrate) before coming to class. Use (defined as having one physically in your hand) of a cell phone during a test or quiz will be considered contact with another person and will be viewed as a form of academic dishonesty. As a result, using a cell phone during a test or quiz for any reason will result in an automatic grade of zero and possible disciplinary action.
Learning Outcomes	<p>The following outcomes will be assessed using the course assignments: homework, quizzes, and exams.</p> <ul style="list-style-type: none"> • Content: <i>Students demonstrate competence in the terminology, concepts, theories, and methodologies used within the discipline.</i> Students 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 trigonometric functions. • Communication: <i>Students communicate knowledge, ideas, and reasoning clearly and effectively in written and oral forms appropriate to the discipline.</i> Students will communicate knowledge, ideas, and reasoning clearly and effectively in written and oral forms appropriate to the discipline. Throughout this course students will formulate and solve mathematical models using algebraic functions, exponential and logarithmic functions, and trigonometric functions. • Critical Thinking: <i>Students analyze information carefully and logically from multiple perspectives, using discipline-specific methods, and develop reasoned solutions to problems.</i> Students will analyze information carefully and logically from multiple perspectives, using discipline-specific methods, and develop reasoned solutions to problems. In this course, students will reason in abstract mathematical systems and apply mathematical models using algebraic functions, exponential and logarithmic functions, and trigonometric functions.
Class Participation	Attendance in class is highly recommended. Students who come to class and participate are more likely to do well in the course. Attendance to Discussion is mandatory (see below for Quizzes and Attendance Quizzes).
Online Homework	<p>In this course we will be using the online platform MyOpenMath which is free and will be explained during class. Online homework assignments will be assigned multiple times a week and must be completed by the specified due date. No assignments can be submitted after the due date. Online homework assignments are worth a total of 15% of your final grade. There will be a total of four dropped homework grades at the end of the semester.</p> <p>Personal computer issues will NOT be a reason to offer any type of extension. If you have any issues accessing the online homework, please contact the instructor.</p>
Quizzes	There will be six quizzes throughout the semester held during Discussion. The dates of the quizzes will be available on Canvas. Your lowest quiz grade will be dropped. Quizzes will be 10% of your final grade.
Attendance Quizzes	There will be five attendance quizzes throughout the semester. The dates of the quizzes will be available on Canvas. Your lowest attendance quiz grade will be dropped. Attendance quizzes will be 5% of your final grade.

Exams	<p>Exam dates are as follows:</p> <p>Exam 1: Tuesday, July 16 during Discussion</p> <p>Exam 2: Tuesday, July 30 during Discussion</p> <p>Final Exam: Friday, August 9</p> <p>Each mid-term is worth 20% of your final grade while the final exam is worth 30% of your final grade. The final exam will be cumulative. If your final exam score is higher than either of your mid-term grades, the lowest mid-term grade will be replaced by an average of that grade and the final exam grade.</p>
Grading	<p>Homework: 15%</p> <p>Quizzes: 10%</p> <p>Attendance Quizzes: 5%</p> <p>Exam 1: 20%</p> <p>Exam 2: 20%</p> <p>Final Exam: 30%</p> <p>A student's final grade is based upon a standard grading scale:</p> <p>A: 90% or above</p> <p>B+: 87% or above</p> <p>B: 80% or above</p> <p>C+: 77% or above</p> <p>C: 70% or above</p> <p>D+: 67% or above</p> <p>D: 60% or above</p> <p>E: below 60%</p>
UF grading policies	<p>For a complete explanation of current policies for assigning grade points, refer to the UF undergraduate catalog: https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/</p>
One Week Policy	<p>Please be aware of the One Week Policy: Once you receive a graded paper back, you have one week to contest the grade and initiate any grade disputes. Once this one week passes, there are no further disputes.</p>
Incomplete Policy	<p>A grade of I (incomplete) will be considered only if you meet the Math Department criteria which is found at https://math.ufl.edu. If you meet the criteria you must see the instructor before the beginning of finals week to be considered for an I. A grade of I only allows you to make up your incomplete work. You cannot redo any previously completed work.</p>
Make-up Policy	<p>There are no make-ups for homework. Make-up quizzes and tests will only be given in cases of documented illness or for students participating in official University events. In the event of missing an attendance quiz with proper documentation, the quiz will be excused.</p> <p>If you miss an exam due to illness or other extenuating circumstances you must submit an excuse note within a week of the exam. For a UF sponsored event, you must e-mail the instructor at least ONE WEEK PRIOR to the event and present documentation. Make-ups will be held at the end of the semester on TBA. UF's excuse note policy can be found here: https://shcc.ufl.edu/forms-records/excuse-notes/</p>

E-mail	All communication between student and instructor and between students should be respectful and professional. All official class communications will be sent only to the ufl.edu addresses. Students are responsible for acquiring, checking their email accounts regularly, and any class information sent to their ufl.edu account. Please be sure to sign your name to your e-mails.
Academic Honesty Guidelines	<p>All students are required to abide by the Academic Honesty Guidelines which have been accepted by the University. The academic community of students and faculty at the University of Florida strives to develop, sustain and protect an environment of honesty, trust, and respect. Students are expected to pursue knowledge with integrity. Exhibiting honesty in academic pursuits and reporting violations of the Academic Honesty Guidelines will encourage others to act with integrity. Violations of the Academic Honesty Guidelines shall result in judicial action and a student being subject to the sanctions in paragraph XIV of the Student Code of Conduct. The conduct set forth hereinafter constitutes a violation of the Academic Honesty Guidelines (University of Florida Rule 6C1-4.017).</p> <p>The Mathematics Department expects you to follow the Student Honor Code. We are bound by university policy to report any instance of suspected cheating to the proper authorities. You may find the Student Honor Code and read more about student rights and responsibilities concerning academic honesty at the link www.dso.ufl.edu/sccr/.</p>
In-Class Recording	<p>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.</p> <p>A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.</p> <p>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. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under the Student Conduct Code.</p>
Evaluations	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 https://gatorevals.aa.ufl.edu/students/ . 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 https://ufl.bluera.com/ufl/ . Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/ .

Students with Learning Disabilities

Students requesting class and exam accommodations must first register with the Dean of Students Office Disability Resource Center (DRC), <https://disability.ufl.edu/get-started/>. That office will provide a documentation letter via email to the course coordinator. This must be done as early as possible in the semester, at least one week before the first exam, so there is adequate time to make proper accommodations.

Free Help

In addition to attending your discussion section regularly and visiting your discussion leader, lecture, or the course coordinator during their office hours, the following aids are available.

- The Math Help Center in Little 215 is open for drop-in assistance with homework Monday through Friday from 11:00 AM to 3:15 PM. It is staffed by mathematics graduate students and undergraduate assistants. Please note that this space is not designed for intense one-on-one tutoring, but rather as a resource for quick questions and explanations. You should not expect the staff to help you if you have not at least begun your homework and have specific questions. Moreover, they absolutely will not assist you with quizzes or any other such work.
- The Teaching Center Math Lab, located in SE Broward Hall, is a tutorial service staffed by trained math and science students to provide help with your calculus questions and homework. Tutors will be glad to provide guidance on specific problems after you have attempted them on your own. You may want to attend different hours to find tutors with whom you feel most comfortable. You can also request free one-on-one tutoring. The math lab also offers a more structured tutoring program for MAC 2312, called supplemental instruction. A tutor, assigned specifically to MAC 2312, provides weekly help sessions. More details will be provided in lecture. In addition, the Broward teaching center tutors hold reviews on the evenings before each exam. They also provide videos of review and sample test problems. Check the webpage, teachingcenter.ufl.edu, for a map of the location, tutoring hours, and test review dates and locations. All students are encouraged to use the teaching center.
- Textbooks and solutions manuals are located at reserve desks at Marston Science Library.
- Private Tutors: If after availing yourself of these aids, you feel you need more help, you may obtain a list of qualified tutors for hire at <http://math.ufl.edu>. Search “tutors”.

Tentative Schedule

Week 1: Introduction to Functions, Exponents and Radicals, Polynomials, Rectangular Coordinates and Circles

Week 2: Introduction to Graphing, Translations and Transformations of functions, Inverse Functions, Quadratic Functions, Complex Numbers

Week 3: Radical Expressions, Rational Functions, Inequalities, Systems of Equations

Week 4: Exponential Functions, Logarithmic Functions

Week 5: Angles, Trigonometric Functions, Unit Circle

Week 6: Fundamental Trig Identities and Formulas

Note: Information in this syllabus is subject to change. Any changes will be clearly announced in class, on canvas, or through e-mail.