

MAC 1114

SYLLABUS

FALL 2022 (updated 8/12/2022)

The course home page is located in Canvas. Log in at <https://ufl.instructure.com/>.

You can send a message to the Instructor below by going to your inbox in Canvas and selecting “Compose a new message”. If you are requesting assistance on a certain problem, please include details showing your work on the problem; feel free to attach a photo of your work.

Instructor

Fatima Akinola

Email: akinola.fatima@ufl.edu (please use Canvas if possible)

Office: Little Hall 479

In-person office hours: TBD.

Online office hours: TBD. Directions for attending online office hours will be announced in Canvas.

Introduction

Course Description

This course is the sequel to MAC1140 Precalculus Algebra and serves as an introduction to Trigonometry. Topics will include a basic introduction to trigonometric functions, graphing trigonometric functions, inverse trigonometric function, and analytic trigonometry.

Students taking this course to meet general education or state requirements, who do not need precalculus for their major or as preparation for calculus, might consider taking MGF 1106 or MAC 1105. For more information on math courses and math advisors go to <http://www.math.ufl.edu/>.

Prerequisites

This course assumes prior knowledge of intermediate algebra (Algebra 2) and trigonometry. Students should be able to do arithmetic without a calculator.

MAC 1114 begins with a short review of some basic concepts in functions (Homework 0). **You should already be competent in working this material.**

Textbook: There is no required textbook for this course. A useful reference can be found at <https://openstax.org/details/books/algebra-and-trigonometry>

Canvas

Canvas is located at <https://elearning.ufl.edu/>; use your Gatorlink username and your password to login. You can find hoemworks, quizzes, bonus quizzes, grades, announcements, lecture outlines, free help information, etc., at this site.

You are responsible for verifying that your grades are accurate. 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.

Note: Important information may be included in the announcements in Canvas. You are expected to read them.

Course Schedule (tentative):

Week 1: Review of Algebra and Geometry basics

Week 2: Radian and Degree Measures

Week 3: Trigonometric Functions

Week 4: Right Triangle Trigonometry & Trig Functions of Any Angle

Week 5: Graphs of Sine & Cosine Functions (Exam 1)

Week 6: Graphs of Other Trig Functions

Week 7: Inverse Trig Functions

Week 8: Applications and models

Week 9: Fundamental Trig Identities

Week 10: Verifying Trig Identities (Exam 2)

Week 11: Solving Trig Equations

Week 12: Sum & Difference Formulas

Week 13-14: Multiple Angles & Product-to-Sum Formulas (Thanksgiving)

Week 15: Law of Sines & Law of Cosines (Exam 3)

Week 16: Preparation to the Final Exam

Lectures

Viewing lecture notes is an important aspect of the learning process. The lecture provides the main presentation of the course material in addition to the textbook. Lecture outlines can be printed from Canvas and used to take notes.

Grading

*You will have ample opportunity to earn your grade in this course. There will be no extra assignments, extra make-ups, rounding up, etc. because you “need” a certain grade. (Any requests for such may be ignored.) **If you “need” a certain grade, you should work hard all semester to make sure you earn it.***

Grades will be based on the following composition:

| <i>Assignment</i> | <i>Number</i> | <i>Drops</i> | <i>Percentage of Final Grade</i> |
|-------------------|---------------|--------------|----------------------------------|
| Xronos Homework | 14 | 2 | 28% |
| Take Home Quizzes | 11 | 2 | 11% |
| Midterm Exams | 3 | 0 | 45% |

| | | | |
|------------|---|---|------|
| Final Exam | 1 | 0 | 18% |
| | | | 102% |

The course grade is then determined by your final percentage as follows:

| <u>Grade</u> | <u>Percentage</u> | <u>Grade</u> | <u>Percentage</u> |
|--------------|-------------------|--------------|-------------------|
| A | 90.00% and above | C | 70.00% to 73.99% |
| A- | 87.00% to 89.99% | C- | 67.00% to 69.99% |
| B+ | 84.00% to 86.99% | D+ | 64.00% to 66.99% |
| B | 80.00% to 83.99% | D | 60.00% to 63.99% |
| B- | 77.00% to 79.99% | D- | 57.00% to 59.99% |
| C+ | 74.00% to 76.99% | E | 56.99% and below |

Xronos HW

Homework will be completed through Xronos. This program should only be accessed through an assignment link in Canvas.

Exams

There will be 3 midterm exams throughout the semester and a final exam.

Course 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 <https://gatorevals.ua.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 ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students here.

University Honesty Policy

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 instructors in this class.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see the Notification to Students of FERPA Rights.

Incomplete Policy

A grade of I (incomplete) will be considered only if you meet the Math Department criteria which is found at <https://www.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.

Class Demeanor or Netiquette

All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats.

Advising and Help:

For issues with technical difficulties for Canvas, please contact the UF Help Desk at:

- Website: <https://helpdesk.ufl.edu>
- Phone: (352) 392-HELP (4357)
- Walk-in: HUB 132

Note: Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from the Help Desk when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a makeup.

If you have any questions please contact your instructors! Office hours will be posted and are regular times when they are available to answer questions, discuss grades, advise students on future classes, or help students in any available way. You do not need an appointment to visit during office hours. If you need to meet outside of office hours, please contact your instructors for an appointment.

In addition, there are several other free resources available to you:

- The Teaching Center Math Lab, located at SE Broward Hall, offers free informal tutoring. You may want to attend different hours to find the tutors with whom you feel most comfortable. Also the Little 215 Tutoring Center provides free tutoring for courses up to Calculus 3. Go to <https://www.teachingcenter.ufl.edu> to find their hours. You can also request free one-on-one tutoring.
- A list of qualified tutors for hire is available at <https://math.ufl.edu/wp-content/uploads/sites/124/2022/05/tutorlistSummer2022.pdf>.
- Other resources are available at <https://www.distance.ufl.edu/getting-help> for: - Counseling and Wellness resources; -Disability resources; -Resources for handling student concerns and complaints; -Library Help Desk support.
- Should you have any complaints with your experience in this course please visit <https://www.distance.ufl.edu/student-complaints> to submit a complaint.

Changes

The instructors reserve the right to make changes to this syllabus as necessary. Any such changes will be announced both in-class and as an announcement on Canvas

Calculator Policy

The only calculator allowed on exams is the non-scientific calculator provided to you in Canvas. For all other assignments, you are free to (and might need to) use a scientific calculator of your choosing.

This is not a plug-and-chug calculator course. You need to understand the mathematics and be able to do the algebraic and trigonometric manipulations first, resorting to the calculator only at the ends of the problems (as necessary) to get the approximate answer(s) as the problems may require. Be sure to carefully read each problem since some will expect exact answers (e.g. $1/3$) and some will expect decimal approximations (e.g. 0.3333), and these are not usually equal. Unless a problem specifically asks for an approximation, you should assume it requires the exact answer.

When working with approximations, you should keep all digits of the intermediate steps in your calculations, and only round the final answer as required by the problem. Failure to do this can result in a rounding error and failure to receive credit for the question part. We will not grant any credit for rounding errors on your part.

You should try to use the non-scientific calculator (in Canvas) that you will be using on exams for nearly all calculations that you don't do by hand on checkpoints, homework, quizzes, and checkups, since that will be better practice for exams. Some problems on checkpoints, homework, quizzes, and checkups may have steps that require computing an exponential, logarithmic, or trigonometric function value that

is not a standard value that should be memorized or that cannot reasonably be completed without an additional aid. In those cases only, you should use a scientific calculator, table of values, or other appropriate aid in order to complete the problem. For example, you should not use an additional aid to compute $\sin 60^\circ$ or $\log \sqrt{10}$ since you should already be able to compute their values as $\sqrt{3}/2$ and $1/2$, respectively; but you can use an additional aid to compute an approximation to $\sin 79^\circ$ or to $\log 73$, as necessary.

If a problem on any exam would normally require the use of a scientific calculator, then you will be given additional information in the problem, either directly giving certain function values that you may need or giving you function values that can be used to determine the value you need. For example, if the approximate value of $\ln 6$ was needed, then an exam problem might give that value (possibly among others) to you, or the exam problem might give you approximations for $\ln 2$ and $\ln 3$, from which you can compute an approximation for $\ln 6$ since $\ln 6 = \ln 2 + \ln 3$. On every exam, you will be supplied with the approximate values for π and e at the top of the exam, so, if you need, for example, to compute π^{-3} , you can just multiply the approximations then take the reciprocal to get the answer, i.e. calculate $\frac{1}{\pi \times \pi \times \pi}$.

As you can see from the preceding discussion, all types of problems you see in homework can appear on exams even if you use a scientific calculator for the homework (and despite the fact you are NOT allowed to use a scientific calculator on exams) since on the exam you will be given extra information.