

I. COURSE DESCRIPTION:

MAC 1114: Plane Trigonometry, 3 lecture hours, and 3 credit hours.

Prerequisite: Math placement or minimum grade of "C" in MAC 1105. Topics included are properties and graphs of trigonometric functions, properties and graphs of inverse trigonometric functions, trigonometric identities, conditional trigonometric equations, solutions of triangles, vector algebra, parametric equations, polar coordinates, and applications.

II. Contact Information

Instructor: Debbie Frady

Instructor Phone: 850-769-1551 x2916

Instructor Email: dfrady@gulfcoast.edu

Division Chair: Angelia Reynolds, areynolds@gulfcoast.edu; 850-872-3852

Division Administrative Assistant: Scott Spencer, sspencer@gulfcoast.edu; 850-747-3229

III. TEXT: Plane Trigonometry, Harris, Hudson, 2017, Gulf Coast State College

OTHER MATERIALS: A graphing calculator is required; TI-83, TI-84 or TI-84 Plus recommended. Your instructor may require you to perform problems on a test without the use of your calculator.

IV. GENERAL COURSE OBJECTIVES:

The student will demonstrate ability to:

1. Describe an angle and convert between radian and degree measure.
2. Identify a unit circle and its relationship to real numbers.
3. Evaluate trigonometric functions of any angle.
4. Use fundamental trigonometric identities.
5. Sketch graphs of trigonometric functions.
6. Evaluate inverse trigonometric functions.
7. Evaluate compositions of trigonometric functions and inverse trigonometric functions.
8. Use fundamental trigonometric identities to evaluate trigonometric functions and simplify trigonometric expressions.
9. Verify trigonometric identities.
10. Solve trigonometric equations.
11. Use sum and difference formulas, multiple-angle formulas, power-reducing formulas, half-angle formulas and product-to-sum formulas to rewrite and evaluate trigonometric functions.
12. Use Law of Sines and Law of Cosines to solve oblique triangles.
13. Find areas of oblique triangles.
14. Perform basic vector operations.
15. Find direction angles of vectors and the angle between two vectors.
16. Perform operations with complex numbers.
17. Multiply and divide complex numbers written in trigonometric form.
18. Find powers and roots of complex numbers.
19. Sketch curves defined by parametric equations.
20. Convert equations between polar and rectangular form.
21. Graph polar equations.

V. COURSE OUTLINE: See the attached daily class schedule for a detailed outline.

VI. ATTENDANCE-WITHDRAWAL-GRADE FORGIVENESS-ATTEMPTS:

A. Attendance Policy:

Students who fail to post to the discussion board before September 2nd shall be classified as "no show" and withdrawn from the course.

B. Withdrawal Policy:

Two withdrawals are permitted per 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. There are two kinds of withdrawals, student and administrative. Please see the manual of policy for detailed withdrawal policies.

1. Student Withdrawal

Student completes a withdrawal form and submits the form to the Office of Admissions and Records before the withdraw deadline, **June 28**.

2. Administrative Withdrawal

This withdrawal is done online by an instructor for excess absences. Withdrawals initiated prior to midterm will be recorded as "W". There are no withdrawals initiated after the deadline. After this date, students will receive a grade.

C. Grade Forgiveness:

A student may repeat a course when a grade of "D" or "F" has been earned. The last grade counts. However, universities may count forgiven grades in calculating the grade point average. Forgiven grades may also be calculated in determining financial aid eligibility.

D. Attempts:

This course, which is a college credit course, may be attempted three times. On the third attempt, 100% of the full cost of instruction will be charged. Students with major extenuating circumstances may submit a letter of appeal stating the circumstances to the dean of students. All grades from the third and subsequent attempts will be calculated in the grade point average.

VI. HOMEWORK:

Homework will be assigned weekly. Two problems will be posted in discussion posts the following Sunday. The daily completion of all homework is essential for learning the material in the course and as preparation for the unit tests and final exam.

VII. TESTING:

There will be five unit tests given. The unit tests will be announced in advance, will count equally, and will be returned. The final exam will not be returned. There are **no exemptions** from the final exam. The student is expected to keep up daily with the assigned work.

VIII. GRADING:

The average of the five unit tests will count 60% of your grade. The average of the discussion boards will count 15% of your grade. A comprehensive departmental final exam (no exemptions) will count 25% of your grade. The college catalog will be used to convert the numerical average to a letter grade. The college grading scale is: A (100-90), B (89-80), C (79-70), D (69-60), and F (59-0).

IX. MAKE UP WORK:

No daily quizzes will be made up. If you miss a unit test and you have a valid excuse, your final exam grade may count as the first missing unit test grade. If you miss more than one unit test, you may take a make up test at the discretion of the instructor. If you have not missed any unit tests, the final exam could be used to replace the lowest unit test grade only if the instructor chooses to do so. The discussion board average will not be replaced.

X. OTHER:

- A. **Studying requires discipline, tenacity, and hard work.** View this course as a job. Attendance is absolutely necessary, as well as attentiveness to detail and alertness. You must earn a "C" in this course in order to advance to MAC 2311, Calculus with Analytic Geometry I.
- B. The PaperCut print management client is installed in all computer labs. The PaperCut user web console is accessed through the MyGCSC portal. The logon is the first part of your student email address, everything before the @mygulfcoast.edu. Students will be required to add money to their PaperCut accounts before they are able to print. Money can be added to student print accounts by cash, credit, or debit card. Cash is accepted at PaperCut kiosks located in the Library. Credit and debit card payments, minimum \$5.00, can be made through the "add credit" tab on the PaperCut user web console. Instructions for the use of PaperCut are located at <https://www.gulfcoast.edu/administration-departments/information-technology-services/printing/>.

C. Available Help Outside of Class:

1. Your Instructor

Full time faculty has posted ten (10) hours per week on their schedule. Their offices are located on the second floor of the Student Union West Building. Adjunct faculty is available for assistance 30 minutes before or after class. Students having difficulty are strongly encouraged to see the instructor for additional help.

2. Math Lab

During the week, you may visit the Math Lab in SUW 261 for addition help. You will find professors and other tutors available to answer your questions from homework.

3. Student Learning Outcomes

Student Learning Outcomes are available upon request. These outcomes are posted on the Mathematics' Web Site.

4. Course Videos

Course videos are also available in the Canvas course online.

5. Other

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 Services. Appropriate academic accommodations will be determined based on the documented needs of the student. For information regarding the registration process, email sar@gulfcoast.edu or call 850-747-3243.

6. Counseling Center

Personal and academic counselors are available on the first floor of Student Union East and are there to help if you are struggling with academic or personal problems. The counselors adhere to the highest standards of confidentiality and will work with you so that you can succeed throughout your academic career. For more information, please contact:

Hayden McGee: lmcgee@gulfcoast.edu, 850-769-1551 ext. 2829

Leigh Bailey: lbailey@gulfcoast.edu, 850-769-1551 ext. 4861

7. Academic Advisor/Academic Degree Plan:

Based on your selected major of study you are assigned to a faculty advisor. Your faculty advisor will work with you to complete your degree plan so that you know all the necessary requirements to graduate. Your academic advisor and degree plan are located on your major of study web page.

XI. Covid Statement: Division Policies Regarding COVID-19 (effective Fall 2021):

- A. The health and safety of students and faculty are a priority. While on campus and in classrooms, wearing cloth masks or disposable facial coverings are recommended in accordance with the current CDC guidelines. Students and faculty must also practice social distancing when possible.
- B. If you are sick, please stay home to protect others. Notify your professor of your condition by phone or email.
- C. If you test positive, please inform your instructor(s) to make arrangements for course requirements and inform Damian South, Campus Safety & Security, at 873-3582 (or dsouth@gulfcoast.edu). You will receive additional instructions at that time. Confidentiality will be maintained.
- D. This information is subject to change. For the most recent information, please refer to the Gulf Coast State College website regarding COVID-19: <https://www.gulfcoast.edu/covid-19-coronavirus.html>

XII. HS233 Statement

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 on pages 36-38 in the GCSC Student Handbook <https://www.gulfcoast.edu/current-students/student-handbooks/2021-2022-student-handbook.pdf>.

**CLASSROOM CONDUCT POLICY
OF THE
DIVISION OF MATHEMATICS
GULF COAST STATE COLLEGE**

In order to promote a learning environment, in which you as a student may receive the greatest consideration, we will do all we can to prevent unnecessary interruptions and class disruptions. To this end, it is the stated policy of the Division of Mathematics that disruptions, absolutely and unequivocally, will not be tolerated in the classrooms administered by this division. To this end, we remind you that the **instructors are obligated** to adhere strictly to the following policies:

1. Everyone is required to be in class on time.
Anyone entering the classroom after the instructor has begun class is late and is a disruption to the class. The instructor must implement an appropriate policy to discourage late arrivals.
2. Disciplinary action in the case of cheating will be administered in accordance with college policy.
As stated in the College Course Catalog "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 and plagiarism, is destructive to the spirit of an educational environment and therefore cannot be condoned." See the *Student Handbook* for details on this policy. Cheating will result in you receiving the grade of "F".
3. The student must have prior consent of the instructor before leaving the class early.
If you must leave class early, notify the instructor before the beginning of class. We do not conduct "open" classrooms where individuals may arrive and exit at their discretion. This activity is disruptive to those trying to learn and will not be allowed. If you leave early without prior notification to the instructor, you will not be allowed back in the classroom without first obtaining permission from Mrs. Reynolds, Division of Mathematics Chair.
4. The instructor is not to allow talking or other distractions to occur at inappropriate times. Use of electronic communication devices (including, but not limited to, cell phones, Ipads, PDA's, MP3/Music players, Blackberries, etc) are allowed in the classroom only at the discretion of the instructor and must be used only as they directly relate to the class. Talking or other disruptive behavior (including ringing cell phones) are distractions to other students and have no place in a college environment. Students who engage in such behavior will be asked to stop. If the behavior continues, the student(s) will be asked to leave and confer with Mrs. Reynolds, Division of Mathematics Chair, concerning the nature of the behavior before being allowed back in the classroom. **NO** electronic devices will be allowed in the classroom on test days with the exception of an approved calculator.
5. **Absolutely no food** is allowed to be eaten in the classroom during class. **ONLY** Soda, coffee and water in a container closed with a lid permitted in the classroom.
6. Infractions of discipline may be handled by the instructor as final authority.
The student has a right to appeal.