

MA104 Analytic Trigonometry
Fall 2020
9:06-9:56 Monday-Friday
Course Syllabus
Central Methodist University

Instructor: Mrs. Leverton

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(You are responsible for communication via email.)

Mission: Central Methodist University prepares students to make a difference in the world by emphasizing academic and professional excellence, ethical leadership, and social responsibility.

Prerequisite: Grade equal to or greater than a C equivalent in MA103

REQUIRED Text: Trigonometry, A Right Triangle Approach, 5th edition, Sullivan and Sullivan, Pearson Prentice Hall, 2009, ISBN 0-13-602896-9

Course description: This course involves studying theory of the trigonometric functions and applying them to analytical geometry. MA104 is primarily for students preparing for calculus or physics.

Course objectives: Upon completion of the course, students will be able to:

- ☒ Solve using analytic trigonometry
- ☒ Apply trigonometric functions
- ☒ Use polar coordinates and vectors
- ☒ Solve using analytic geometry
- ☒ Use exponential and logarithmic functions

Common Core Competencies: This course meets the following competency in the CMU General Education Core Value: Foundations: Math Literacy; students will demonstrate mathematical reasoning by applying appropriate methods and procedures. 6&7

Academic Conduct Policy: Any student caught committing academic misconduct will earn a zero for that assignment, quiz or exam. Furthermore that student will come under the auspices of the Academic Conduct Policy of CMU. It is the student's responsibility to review and understand the CMU Academic Conduct Policy.

Grievance Policy: Central Methodist University has established a grievance policy and process designed to provide students and others with a process to resolve potential issues. This policy and process is established to provide persons with an avenue to file a written concern and to establish a process to track and implement changes as a result of said concern. For more detailed information consult the CLAS catalog at:
<http://www.centralmethodist.edu/academics/catalog/clas-catalog/policies/index.php>.

If an issue cannot be solved through consultation with the faculty or division chair, students can report an incident/issue within 30 days of the event via the online web form (<https://cm.maxient.com/reportingform.php?CentralMethodistUniv>).

Attendance: Regular attendance is necessary for this class. Late arrival or early departure from class may be counted as an absence. In the event of an absence, you are responsible for all of the material covered in class that day and any schedule changes or class announcements.

Course Outline

Chapter 1 3 weeks

- Graphing functions
- Transforming graphs

Exam 1

Chapter 2 5 weeks

- Radians and degrees
- Right triangle trigonometry
- Trigonometric functions
- General form triangles
- Graphing trigonometric functions
- Transforming trigonometric graphs

Exam 2

Chapter 3 4 weeks

- Inverse trigonometric functions
- Trigonometric identities
- Sum and difference formulas
- Double-angle and half-angle formulas
- Solving trigonometric equations

Exam 3

Chapter 4 4 weeks

- Right triangle applications
- Laws of Sines and Cosines
- Triangle area

Exam 4

Chapter 5 2 weeks

- Polar coordinates
- Polar equations and graphs
- Vectors

Exam 5

Final Exam

Grading Policies: There will be a test following each chapter (approximately 4-5 for the semester). Quizzes will be given periodically throughout the semester as well (usually 1 per chapter). Homework will be assigned on a weekly basis.

Tests/Quizzes	70%
Homework	30%

How the class works: Homework is due at class time on Friday, and the new set of work is assigned for the next week. Class lecture time will be spent on specific topics and skills covered in that week's work. It will be driven largely by questions you have and issues that arise as you attempt the work. Therefore, you will want to start the week's work as soon as possible, do what you can, recalling what you've learned in the past and/or reading through the text and following examples, and then bring specific questions to class so that we can go over them together.

Penalty for late work: NO LATE WORK IS ACCEPTED.

Class policy for making up work: Because assignments are given up front, as one week ends and another begins, there should be no need for make-up work. Start the work early, on Friday. Do what you can over the weekend. Be prepared to spend the following week asking questions, making corrections, and completing everything. The earlier you get it turned in, the more time I have to look at it and give you feedback that may include opportunities to raise your scores.

Note: Central Methodist University does not discriminate on the basis of race, color, religion, sex, national origin, age, or federally defined disability/state defined handicap ("disability"). This includes but is not limited to recruitment and admission of students, educational programs, services, activities, financial aid, and scholarship programs. The University complies with all federal and state non-discrimination requirements.

This syllabus is subject to change, without notice, at the discretion of the instructor.

Please email me as soon as possible so that I have your email address. I will use email to update you on changes in the schedule and/or the assignments and it is useful for you to ask questions and get help outside of class.