

CENTRAL METHODIST UNIVERSITY

College of Graduate and Extended Studies

Spring 2010

MISSION

Central Methodist University prepares students to make a difference in the world by emphasizing academic and professional excellence, ethical leadership, and social responsibility. (The student is reminded that they are in a collegiate setting with all the privileges and responsibilities there in.)

CREED

The Central Methodist University community believes in:

- Seeking knowledge, truth, and wisdom;
- Valuing freedom, honesty, civility, and diversity;
- Living lives of service and leadership; and
- Taking responsibility for ourselves and the communities in which we live.

Course: MA104 Analytic Trigonometry– (2 credit hours)

Description: “Theory and application of the trigonometric functions. (Primarily for students preparing for calculus or physics.)” Topics will include right triangle and circular function approaches to trigonometry, graphs of trig function, trig identities, conditional equations, right and non-right triangle applications of trigonometry, inverse trig functions, trigonometry of complex numbers (including De Moivre’s Theorem), polar coordinates and equations, and parametric equations.

Prerequisites: Prerequisite: MA103 (or MA101/102) or equivalent.

Lecture: M, W (Dual Enrollment Classes)

Dates: University Class Begins- January 12, 2010

Instructor: Aaron Kurdle

Email: akurdle@mrkurdle.com (usually responded too within 24 hours or less)

Office Hours: by appointment

Text: Trigonometry, 5th edition/McKeague and Turner ISBN 0-534-40392-1

Other: Graphing Calculator such as TI-83/84

Graph Paper (4 square per inch) and straight edge (ruler)

Course Webpage: <http://www.mrkurdle.com> (Course materials will be posted on the course website)

Methods of Instruction: Methods of instruction will include lecture, teacher and student demonstration, group practice and discussion, written assignments and labs. Students are responsible for lecture notes AND all assigned chapters in the textbook.

Course Grading, Policies, and Scale:

Grades will be determined as follows:

Homework	12.5%
Classwork	12.5%
Quizzes	10%
Tests	45% (tests 1-3 are 15% each.) (Tests 2 and 3 are 80% current and 20% cumulative.)
Final Exam	20% (comprehensive final)

Course Grading, Policies, and Scale: (cont'd)

Grading Policies:

Grades will be recorded and are available from the instructor upon request. Progress report and quarter grades will be given to the school. The course grade will be calculated by adding all points received, and dividing by the total possible for *the entire* semester.

Grade Scale:

Letter grades for Dual Credit will be assigned according the grading scale below. Grades will be not be rounded up.

90 – 100%	A
80 – 89%	B
70 – 79%	C
60 – 69%	D
Below 60%	F

ACADEMIC HONESTY POLICY

Central Methodist College's Policy on academic honesty is strictly enforced. While working together for the common cause of learning is encouraged, outright copying of another's work is dealt with severely.

ACADEMIC PROPERTY

All work (original or copy) submitted by the student to satisfy the requirements of the course may be retained at the discretion of the instructor for non-profit and educational purposes. Such work is generally used for assessing the course and providing evidence of student accomplishment for review by accrediting agencies. Any student wishing to prohibit such use of their work may do so by notifying the instructor in writing within the first full week of classes.

NONDISCRIMINATORY POLICY

Central Methodist University does not discriminate on the basis of race, color, religion, sex, national origin, age, or federally defined disability in its recruitment, admission, and retention of students.

INSTRUCTORS POLICIES

- **COURSEWORK:** The student is responsible for all material covered in lectures and all assigned material in the textbook.
- **HOMEWORK:** Homework problems will be assigned for the purpose of giving the student an opportunity to learn by doing. Homework problems are chosen to help develop the concepts to be mastered in the course. Therefore, the students can expect similar problems on quizzes and exams.
- **DUE DATES:** All assignments and quizzes must be turned in no later than the due date announced. No late assignments are accepted. No late or partial credit is available. It is the responsibility of the student to turn in all assignments on time whether the student is present in class or not.
- **TEST AND EXAM DATES:** All tests are to be taken on the date and at the time scheduled. No make-up test will be given unless the instructor feels the absence was justified. In any case, all tests must be accomplished within 7 calendar days. The final exam must be accomplished no later than the last day of final exams on the Universities calendar. There are **NO EXCEPTIONS**.
- **ATTENDANCE:** No absences are excused except by policy of your high school. It is the responsibility of the student to notify the instructor **PRIOR** to any scheduled absences, and the student is responsible for obtaining all lecture notes and sample problems given in class. Remember, absences excused by your school do **NOT** supersede these class and University policies.
- **STUDENT CONDUCT:** Disruptive, discourteous, disrespectful, and/or unseemly behavior will not be tolerated. Such behavior will result in subjecting the student to the discipline policies of your high school. Such discipline problems can result in the student being removed from the class and dropped from the class with a grade of "F". Academic dishonesty is also defined in your high school's student handbook, and those policies will be followed in addition to those of the University.
- ***This course syllabus may be modified, by the instructor, with cause, at any time.*** Prior notice will be given to the student before a change is made or goes into effect.

LEARNING AND COURSE OBJECTIVES

This course will prepare students for additional math courses, especially calculus. Students will also be able to apply skills learned to general problem solving.

TOPICAL OUTLINE

- Angles, degrees and special triangles
- Trigonometric functions in right triangles
- Trigonometric functions of any angle
- Trigonometric functions of real numbers
- Basic trigonometric identities
- Graphs of trigonometric functions
- Inverse trigonometric functions
- Verification of trigonometric identities
- Use of trigonometric identities
- Solve trig equations
- Applications of trigonometric functions
- Parametric equations
- Polar coordinates and equations

COURSE OBJECTIVES

1. Analyze and classify angles, convert between units, use the Arc Length Formula, and use the relationship between linear and angular speed.
2. Define and find the exact values of the six trigonometric functions.
3. Apply the six trigonometric functions.
4. Graph the six trigonometric functions by hand.
5. Verify and apply trigonometric identities.
6. Solve trigonometric equations.
7. Define, use, and apply inverse trigonometric functions.
8. Define, use, and apply the Law of Sines and Law of Cosines.
9. Perform operations with and apply vectors.
10. Convert complex numbers into trigonometric form & vice versa, perform operations with complex numbers, and find roots and powers of complex numbers.
- 11.** Convert between rectangular & polar coordinates and graph polar coordinates and equations.

CENTRAL METHODIST UNIVERSITY

ACADEMIC HONESTY POLICY

Central Methodist University believes that honesty throughout life is a significant foundation of character and personal integrity. The University's Policy on Academic Honesty applies to all forms of academic work, including but not limited to quizzes and examination, essays and papers, lab reports, oral presentations, surveys, take-home tests, etc. Every student is responsible for understanding this policy. By registering at the university, every student accepts the obligation to abide by this policy.

Students are also responsible for understanding the particular policy applications required by each of their instructors and to ask the instructor for clarification of any areas of uncertainty. Academic honesty requires that each person accept the obligation to be truthful in all academic endeavors. To help members of the community understand the implications of academic honesty; the University provides the following explanation of academic dishonesty.

Academic dishonesty is any conduct that has either as its intent or its effect (independent of intent) the false representation of a student's academic performance.

Academic dishonesty includes but is not limited to the following:

1. Cheating in any form (e.g., ghost-written papers, cheat sheets or notes, copying during exams, quizzes or other graded class work, etc.)
2. Collaborating with others on work to be presented contrary to the stated rules of the course
3. Stealing or having unauthorized access to examination or course materials.
4. Falsifying records, or laboratory or other data.
5. Submitting work previously presented in another course without the advance consent of the instructor.
6. Knowingly and intentionally assisting any other student in any act of academic dishonesty (this includes intentionally allowing any other student to use or submit your academic work or performance, or other academic work supplied by you, under a name different from the author of the work), and,
7. Plagiarism. Plagiarism is a form of cheating and stealing. It is morally unacceptable as well as against academic policy. Plagiarism includes but is not limited to:
 - (1) Representing as one's own work a paper, speech, or report written in whole or in part by someone else (from the unaccredited use of significant phrases to the unaccredited use of larger portions of materials),
 - (2) Failing to provide appropriate recognition of the sources of borrowed material through the proper use of quotation marks, proper attribution of paraphrases, and proper citations.

Paraphrase is the direct use of others' ideas, data, or structures of thought stated in language substantially different from the source upon which they depend, and therefore not requiring quotation marks even though the substance of the material is borrowed. In borrowed material, appropriated recognition of the source must be given.

The University will discipline students for infractions of the Academic Honesty Policy with various sanctions which it deems appropriate, up to and including suspension or expulsion from the University.

Penalties internal to a course, including grades and expulsion from the course, are at the discretion of the instructor. Students can appeal instructors' internal course penalties to the Committee on Academic Standards and Admissions, whose decision is final.

Instructors must report all penalties they impose for academic dishonesty, with a brief account of the offense, to the Dean of the University, so that all violations are recorded.

For serious or repeated offenses, the Dean may impose further penalties beyond the course penalty. These penalties include but are not limited to notations in the student's file, notations on the student's transcript, probation, suspension, and expulsion.

A decision by the Dean of the University can be appealed to the Faculty Committee on Academic Standards and Admission, whose decision is final.

Student Acknowledgment

I have received and fully read and understand the course syllabus and Central Methodist University's (University) Academic Honesty policy.

Further, I acknowledge that I am bound by all of the University's policies and that I am responsible for knowing and following all said policies. These include both those set forth in the syllabus and all those not specifically included in the syllabus.

In good faith, I _____ (printed legal name) do hereby acknowledge my understanding and responsibilities contained herein.

Signed on this _____ day of _____, in the year _____.

Signed By _____

Please Sign and return to your facilitator by the end of the first full week of classes.

Facilitators please fill in the high school attended below and immediately forward to the instructor by United States Postal Mail.

High School Attended