Plane Trigonometry – MATH 1213-4 · TR 12:00 – 1:15, WCC 207
NorthWest Arkansas Community College – Spring 2025

– about me and this course –

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Course Objectives:
1. To develop proficiency in trigonometry by:
   a. define, apply, find exact values and graph the six trigonometric functions
   b. apply applications to include linear and angular velocity, arc length, area of sectors and simple harmonic motion
   c. using trigonometric identities to verify identities and to solve trigonometric equations
   d. define, use and apply inverse trigonometric functions and the Law of Sines and the Law of Cosines
   e. convert complex numbers between standard and trigonometric form, between parametric and rectangular equation of curves, and between rectangular and polar coordinates and their graphs.
2. To develop problem solving skills

Course Descriptions:
A survey of basic trigonometric concepts. Topics include the definitions of trigonometric functions, graphs of trigonometric functions, inverse trigonometric functions, trigonometric identities and equations, applications of trigonometry, complex numbers, and polar coordinates and equations.

Required Textbook:
Trigonometry, Lial, Hornsby, Schneider, Daniels, Pearson, 12th edition

Prerequisites:
College Algebra (MATH 1203) with a C or better; or an appropriate placement score. A good understanding of the concepts from the prerequisite course is expected.

– details regarding grading –

Grading for this Course:
The numerical grade comes from the following sources:
✢ Homework: All homework scores will count towards your Homework grade and be scaled out of 50 points.
✢ *Quizzes*: Periodical quizzes will be graded and scaled to 100 points.
✢ *Unit Exams*: There will be four unit exams, each worth 100 points (total: 400 points)
✢ *Final Exam:* The *final exam* is worth 200 points and will be comprehensive.

Percentage score will be this numerical grade out of 750 points. A letter grade will be assigned based on the standard percentage scale:

A 90-100	C 70-79.9	F below 60
B 80-89.9	D 60-69.9	FP failure due to non-attendance

Homework/Quiz Policy:
You are *expected* to work all homework problems assigned by the due date listed on myMathLab. Since this is a three-credit course, you should expect to spend around *six hours* each week on homework and general overview of topics being covered (spread this time throughout the week). This is considered the norm for a college level course. It is very important to organize yourself so that you will received the most credit for these assignments. I highly recommend that you write out each problem in a homework notebook so you can refer back to them in preparation for exams, since you will be required to show work on exams for full credit on each problem. Quizzes will be posted periodically on myLab Math (MLM) and some may be given on paper, during class time. You will have a few attempts on each quiz given outside class time on MML, before the due date. No partial credit is given on quizzes given on MLM.

Exam Policy:
All exams will be taken during regular class time, on paper. Notes will *not* be allowed on exams. Only approved calculators will be allowed. The use of cell phones or computer application during testing time is prohibited. Once the exam has started, no student may leave for *any* reason unless the exam is turned in. Doing so may result in a Zero for the exam.

Calculator Use:
Students can use up to the TI-30 series (or comparable) calculator for most courses, any graphing calculator is not permitted. Please be aware that supporting work for any of the processes will be required to earn any credit on any exam. Answers without correct supporting work will not earn any credit. Remember, the use of a calculator should enhance the mathematics, not replace it. The process of obtaining a solution is many times more important for our purposes than the solution itself. I will grade your work as well as your solutions.

Makeup Policy: There will be no make ups on exams, quizzes or homework. I will replace your lowest exam score (or missed exam) with your final exam percent score. Some quizzes will be dropped at the end of the semester. Given the amount of time allowed to complete homework assignments, there is no reason to not complete any homework assignments.

Participation Policy: Participation is expected, and lack of participation will invariably prove detrimental to your grade and your learning experience. Regardless of the reason for missing class, you will be responsible for any missed assignments, material and announcements. Do NOT wait until the last minute to complete assignments.

Administrative Drop/Withdraw: In order to maintain College compliance with federal and state regulations and to report correct data to the state, students will be withdrawn from this class if they have not completed sufficient assignments for this class by the *Census Reporting Date*. Students are expected to attend class and to have attempted at least half of the assigned HW Assignments and Quizzes with due dates before the Census Date with at least 50% on each of those assignments. Instructors will complete an electronic form to initiate an administrative drop from a course if a student has not met this requirement. There will be no reinstatement of students dropped from this course for the above stated reason.

Red-Letter Days: All special dates related to this course can be found on the course outline and/or on myLab Math (exams dates, due dates on HWs or any MLM Quizzes, etc.). Dates related to NWACC policies (drop dates including Administrative, final week dates, etc.) can be found on the NWACC Calendar page. It is the responsibility of each student to know where to find these dates. NWACC Calendar link: https://www.nwacc.edu/enrollment/records/importantacademicdates.aspx.

Academic Dishonesty Policy: For equality purposes, your instructor reserves the right to clear your calculator of unapproved formulas and programs before each exam. No graphing calculators or calculators with a CAS (Computer Algebra System) such as TI-89, TI-92, TI-Voyage or comparable utility is allowed in this class. The attempted use of a prohibited calculator or program is academic dishonesty and will result in a score of 0 with no possibility of the score being dropped or replaced. This also applies to all other forms of academic dishonesty including, but not limited to, using formula sheets not provided by instructor or any notes, leaving the room and returning during an exam, copying from someone else's paper, or allowing someone to copy your paper. Further action will be taken according to the policy on Academic Honesty in the current College Catalog.

– more general policies –

Inclement Weather Policy: Decisions on college status during inclement weather are made by the President or the President's designee. Such decisions will be posted on the college web site, at http://www.nwacc.edu. The decision might be to move the class to Remote Streaming (details will be emailed at that time).

Artificial Intelligence Policy: Artificial intelligence (AI) is a rapidly developing field that has many applications and implications for mathematics and education. AI tools can generate text, images, code, and other forms of content based on user input. Some examples of AI tools are OpenAI, Google Workspace, and Microsoft Bing (Copilot).

- o The use of AI tools in this course is not prohibited in assisting you on HW Problems, to gain a better understanding of how the problem should be approached. You should use AI tools only as a study aid, not as a substitute for your own work or understanding. AI tools should never be used on quizzes, since you are testing your understanding in preparation for exams.

If you have any questions or concerns about the use of AI tools in this course, please contact me. I reserve the right to modify this policy at any time, and to take appropriate actions in case of any violations. By enrolling in this course, you agree to abide by this policy and the academic integrity policy and the student code of conduct.

Available Tutoring: Tutoring at the Math Center is offered. There is a link to the Math Center on my website with information on when the center is open. There are also many online sources (youTube, etc). Also, please, contact me during my office hours to get help or email me anytime.

Methods of Instruction: Instruction will take place through lectures, readings and assigned problems.

Canvas Limitations: Just a reminder, we will NOT be using Canvas. No assignments will be posted to Canvas for this course. All course information will be emailed to your NWACC email account. The most up-to-date grades will in myLab Math (MLM). Grades will be moved to Canvas, but MLM will has the official grades.

Class Continuation Plan: NWACC reserves the right to enact a class continuation plan in the event of class cancellations due to weather or other emergency events. The instructor will maintain continuity using myLab Math, Canvas or other alternate means as determined by the instructor. You will be contacted via your established communications channels with instructions. Students will be expected to continue with assignments. Consideration may be given for exceptional circumstances.

Other Resources: Free tutoring is available at the Math Center (BH 1217). Other online resources, such as YouTube videos and many websites (use Google to find) can be useful. Also, don't forget to stop by during office hours.

Course Issues: Please contact me first with any questions or concerns with the class. If you have concerns about the class that you do not wish to discuss further with me, please contact either of the math department co-chairs: Meredith Davis at (479) 986-6920 or medavis1@nwacc.edu; Amber Holtz at (479) 986-4007 or aholtz@nwacc.edu.

NWACC General Policies Link: For additional college wide policies, go to the following website: https://nwacc.instructure.com/courses/854631/pages/syllabus-policies. You're also responsible for these policies.