

Professor: Dr. Chris Black
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Required *PreCalculus*, Sullivan, Second Custom Edition for CWU.
Text: The course will cover selected material from Chapters 6-10.

Calculator: A graphing calculator is required for class work and homework, but use may be restricted during tests and quizzes.

COURSE DESCRIPTION:

Math 154 is a 5-credit course designed to develop both the conceptual and the procedural skills in trigonometry that will prepare you for the study of Calculus. The course requires problem solving, analysis, and communication in addition to algebraic, graphical, and numerical approaches to the problems that we study. You need to already have foundational proficiency in a range of mathematical topics, including equations, functions, and transformations of functions which will be built upon during the course. When you finish, you will have proficiency with general trigonometric functions and their graphs, solving trigonometric equations using inverse trigonometric functions, and proving and using trigonometric identities.

TIME REQUIREMENTS:

The general rule of thumb for college courses is that you should spend 2 hours working on course content outside of class for every hour you spend in the classroom. Expect to spend 5-10 hours per week working and studying outside of class in order to be successful in this course. Some students may need more time, and some may need less.

HOW TO SUCCEED IN THIS COURSE:

Daily attendance is expected, and is considered necessary for success. If you need to miss class for some reason, it is your responsibility to find out what occurred in class while you were absent, either from another student or from the professor. You are responsible for any announcements made in class regarding assignments and tests, whether or not you are present.

During class, you are expected to be alert and engaged. We will often do individual or group work during class, which clarifies or strengthens your understanding of the material. You are expected to work cooperatively with others, and to possibly present your work to the class.

All work handed in on paper for the course must be legibly written with correct mathematical notation and sufficient explanation that another student could follow your reasoning. A complete explanation is required to receive full credit on exams.

HOMEWORK:

I will on some occasions hand out homework for you to complete on paper, but homework will generally be administered and graded through Pearson's MyMathLab program, access to which comes bundled with your textbook. MyMathLab allows multiple attempts on each problem in order to reward perseverance. There is also an option to email me directly from MyMathLab with a question on a homework problem; take advantage of that convenient way to get help. Homework completed after the due date will receive half credit.

MASTERY QUIZZES:

There are 8 mastery quizzes that will be administered weekly over the course of the quarter. These short quizzes can be retaken as often as needed until mastery of the topic is demonstrated. The first attempt will be administered during class, and it is your responsibility to arrange for a retake when necessary. Mastery is indicated by a quiz with no more than one incorrect response. The mastery tests measure procedural fluency in the following topics:

1. radian measure, unit circle values and properties of basic trig. functions (6.1-6.3)
2. graphs of transformations of trigonometric functions (6.4-6.6)
3. inverse trigonometric functions (7.1-7.2)
4. trigonometric equations and identities (7.3-7.4)
5. sum & difference formulas; double & half-angle formulas (7.5-7.6)
6. law of sines and law of cosines (8.2-8.3)
7. polar coordinates and polar equations (9.1-9.2)
8. vectors; dot and cross products (9.4-9.6)

Each of the 8 mastery quizzes is worth 20 points; you will be assigned a score of 0 until the test has been passed, at which point you will be assigned a score of 20. There is no partial credit on a mastery quiz.

TESTS:

We will have four tests during the quarter, as specified on the course schedule. The tests will take 60 minutes and are worth 75 points each. If you need to miss a test for a school-sponsored event such as a field trip or participation in sports, a make up test will only be offered if arranged in advance. Otherwise, no make-up tests will be given unless you can provide documentation for an extenuating circumstance such as hospitalization or incarceration.

FINAL EXAM:

The final exam is cumulative and **MUST** be taken during the officially designated time. The final exam will consist of three sections that roughly correlate to the material covered on the three tests. If it is in your favor, one (and only one) test score can be replaced by the scaled score on the corresponding section of the final exam. The final exam is worth 150 points.

GRADING:

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| Homework: | Scaled to 150 points total |
| Mastery Quizzes: | 180 points total (8 of these) |
| In-Class Tests: | 75 points each (4 of these) |
| Final Exam: | 150 points |
| Participation, Attendance & Citizenship: | 20 points |

PARTICIPATION & CITIZENSHIP:

You are expected to be awake, alert and attentive during class, and to participate in group or pair activities as they arise. This may include presenting your work to the class at the board or using the document camera. Citizenship addresses your behavior and comporment with class members and the instructor. We each need to be respectful of other students and differing ideas within our learning community.

HONOR AND RESPECT:

Each of us should consider our placement at this institution to be a privilege. We need to have respect for one another, and for ourselves. In light of these facts, cheating in any form will not be tolerated. You are encouraged to work together on homework problems, however anything you turn in with your name on it should have been written by you alone. Any infractions may result in a zero for the assignment, a failing course grade, and the possibility of disciplinary action by the university.

DISABILITY SERVICES:

If you have a disability and require accommodations for this course, please speak with me privately as soon as possible so that your needs may be appropriately met. If you have not already done so, you will need to register with Disability Services. You can register with Disability Services at <http://www.cwu.edu/disability-support/quick-links>. If you have any questions or concerns, you can contact Adam Haizlip, Interim Associate Director for Westside Student Life, at 206-439-3800 extension 3818 or email Adam.Haizlip@cwu.edu.

I retain the right to change the policies contained in this syllabus as dictated by developments during the quarter.