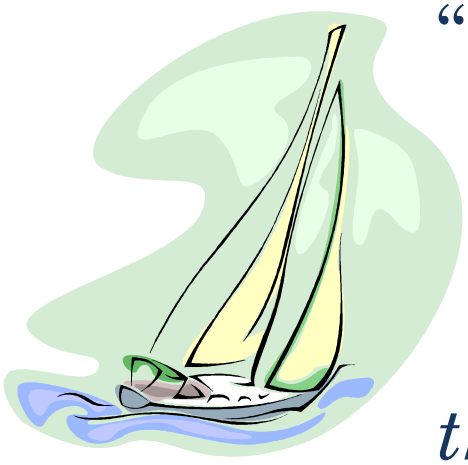
DVC – Math 121 Syllabus



"You can't direct the wind – but you can adjust the sails."

Course:	Math 121, *Trigonometry* w/Support
	Sec. 3074/1074
Location:	Math Bldg - 245
Instructor:	Mr. Narin
Term:	Fall 2023, Aug 22nd – Dec 7th
Time:	T, Th 2:30 – 5:00
Class Website:	***MathWithSteve.com***
Email:	**SteveNarin314@gmail.com**
Office Hours:	T, Th 2:00 – 2:30 5:00 – 5:30 in Room 245

DVC Math/Engineering Student Tutoring Center Hours

M–Th: 8am to 8pm,

Friday: 10am to 2pm

Academic Proctoring Center (Make-up Tests)

By appointment

Required

Text: NO text required. Everything you need will be at the class website: MathWithSteve.com

Calculator: A simple scientific calculator will be perfect for this class — just look for the SIN button — TI recommended; it's about $13 and will be allowed on every quiz and test. No graphing calculators (or anything that does algebra) are allowed.

We will also use a graphing program on the web called Desmos. There's nothing to install — it runs right in your browser.

Browser: It is strongly recommended that you use Google Chrome for your web browser. Our class website requires it, and I am pretty sure that the Khan Academy website no longer supports Internet Explorer.

Platform: **www.MathWithSteve.com** [No username or password required]. Here you will find the Syllabus, the Schedule, the Grade Sheet, links to Algebra books and other Trig books, Online Practice (Homework), and various other links. This is the only platform we will use.

Email: As a DVC college student, you are required to check your school email account (or personal email account, if you let me know) regularly — that means at least a few times each day.

Grading Components

We will use a point system for this class, so that the grade sheet can display your percentage at any point in the semester. The points will be allocated in approximately the following way:

Activities:	19%	Roughly 15 activities at 10 pts each (sometimes split into two 5-pt activities)
Quizzes:	30%	Roughly 24 quizzes at 10 pts each
Tests:	51%	Exactly 4 tests at 100 pts each

Power Tests

In order to pass this class with a C or better, you must pass a **Power Test**. It's a 2-minute test consisting of 10 multiple-choice problems, chosen from anything we've had in the course up to that point. The bad news is that a passing score is a perfect **10 out of 10**. The good news is that you may take it multiple times until you pass it, at which point you never have to take it again. The Power Test will be available at about the 10th week of class.

Advanced Tests

This section is only for students seeking an A in this class. For the topics listed below, I will provide specific links, but it is your responsibility to learn the topics on your own. You must choose and pass <u>two</u> tests from the following three choices:

1. Complex Numbers
2. Parametric Equations
3. Polar Coordinates

For each of the two tests you choose, your score has to be essentially 100% in order to pass that topic. You may take the test more than once if necessary.

Homework

Homework will be assigned from the Online Practice link and from textbooks available at the class website.

The problems I assign are designed to inform you as to what skills and concepts you are supposed to be gaining from this class. In other words, you need to do as much homework as you need to — whatever it takes to achieve the degree of success you desire. In short, it's up to you to discover the homework strategy that suits your personal learning style. Because of this policy, homework is *not* counted toward your grade.

However, if circumstances warrant, I reserve the right to check your homework at any time, and possibly assign you some "individualized instruction."

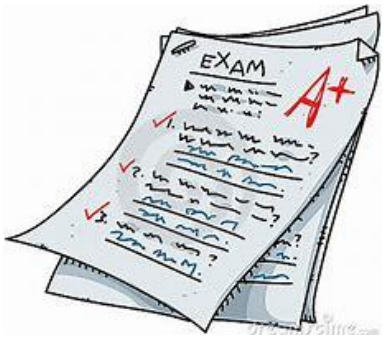
Activities

These are miscellaneous assignments that you will hand in for points. One method is that they will be assigned toward the end of the week, and will be due Tuesday at the start of class (10 pts) Another method is to have an in-class Activity (5 pts) followed by a weekend Activity (5 pts).

Quizzes

A quiz will be given at the end of each class meeting (except test days). The quizzes cover primarily the previous lecture, and quite possibly previous quizzes. If a quiz covers earlier material, it will be made clear in the Homework part of the Schedule. I will drop the four lowest quizzes, but neither of the last two. There are NO make-ups on quizzes.

Tests



There will be **four** major tests. The tests will contain some T/F, multiple-choice, and matching questions, but mostly "*show your work*" questions (with partial credit quite possible).

One of the first three tests can be made up one time, even if passed (no penalty, but no extra credit). The deadline for a test you took (whether passed or failed) is near the end of the semester.

If you miss a test, that will obviously be the one you make up, but this one must be taken within two weeks of the day the test is returned to the class.

Our class time in Trig is $2\frac{1}{2}$ hours per session, which I believe is too long for either a trig review or a test, so on review and test days 45 to 60 minutes will be spent covering new material (which is not on the test).

Letter Grades

A – 90% and up
B – 80% to 89%
C – 70% to 79%
D – 60% to 69%
F – below 60%

> ***Live*** **as if you were to die tomorrow.**
>
> ***Learn*** **as if you were to live forever.**
>
> **Mahatma Gandhi**

Academic Dishonesty

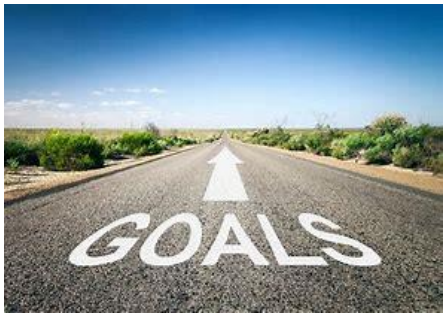
Click the following link: *Academic Integrity Policy*

That document should answer all your questions regarding this issue.

Please note that — if you are caught cheating — the consequences I impose will be as harsh as the DVC policy allows.

Student Learning Outcomes and Course Content

This course focuses on the theory and applications of trigonometry, including right triangle trigonometry, general angle trigonometry, and trigonometry on the unit circle, as well as trigonometric functions of real numbers. Applications include solutions of right and oblique triangles in problems in surveying, physics, engineering and navigation. CSU



Course Objectives

Objectives/Student Learning Outcomes
Students will be able to: A. State, interpret, and utilize the fundamentals of trigonometry. B. Analyze and solve problems that have applications in mathematics, science and engineering. C. Develop skills in mathematical analysis. D. Apply problem–solving techniques and concepts applicable to the study of analytic geometry and calculus. E. Demonstrate an awareness of the inter-relationship between algebra, geometry and trigonometry in the solution of mathematical problems.
Content
A. Angles - degree and radian measure B. Right triangle trigonometry C. Trigonometric functions of angles D. Trigonometry on the unit circle E. Use of hand calculators F. Triangles and applications G. Vectors and circular motion H. Graphs of trigonometric functions I. Trigonometric identities J. Trigonometric equations K. Inverse trigonometric functions L. Complex numbers and polar coordinates

"Wisdom begins in wonder."

Socrates