

# Course Plan

Give the tentative dates for class work and topics and chapters to be covered with the homework. Course Name and Number		Module Name and Number			
	Learning Objective & Content Topic	Learning Activities	Resources	Evaluation Method	Tools & Technologies
Ex.	Related learning outcome from course outline and content topics to be covered for a given week	Describes student learning activities (reading, case study, group project, peer assessment, essay, reflection paper, research report, etc.)	Resources needed for each module. (textbook pages, "handout", new content to be written, URL links, etc.)	Identifies: types of written quizzes and tests, participation, self-tests, papers & percentage of total	An instructional designer will provide you with tools and technologies appropriate for your learner outcomes
1	Students will calculate lengths using sine, cosine and tangent ratios.	Will use Promethean Board/Google Classroom to receive information, take notes and work guided practice problems. Use calculators to solve problems.	student notebooks, <u>Trig Ratio Instructional Slides</u>  Instructional videos linked from YouTube and Khan Academy.	Checking for understanding, guided practice and homework, test	Promethean Board, Chromebooks, student calculators.

			Practice problems/worksheets (with answers) for extra individual practice.		
2	Students will calculate angle measures using inverse trigonometric ratios.	Will use Promethean Board/Google Classroom to receive information, take notes and work guided practice problems. Use calculators to solve problems.	<u>Inverse Trig Ratio</u> <u>Instructional Slides</u>  Instructional videos linked from YouTube and Khan Academy.  Practice problems/worksheets (with answers) for extra individual practice.	Checking for understanding, guided practice and homework, test	
3	Students will solve right triangles (using prior knowledge of	Students will work in collaborative study	<u>Jeopardy</u>	Points are given based on correct	Promethean Board, Chromebooks,

<p>Pythagorean thm)</p>	<p>groups and play JeopardyCollaborative</p>	<p><u>Review Game</u></p> <p>Instructional videos linked from YouTube and Khan Academy.</p> <p>Practice problems/worksheets (with answers) for extra individual practice.</p>	<p>answers. Top three teams will receive extra credit on their exam.</p>	<p>student calculators, white boards and markers</p>
-------------------------	--	---	--	--

# Module Outline

Item	Description
Module Title	Trigonomic Ratios
Description	In this module, students will use trigonometric ratios and the Pythagorean theorem (prior learning) to solve right triangles. The immediate audience will be secondary education students (majority being sophomores) in Mr. Ramos' Geometry classes.
Learning Objectives	Students will calculate lengths using sine, cosine and tangent ratios.  Students will calculate angle measures using inverse trigonometric ratios.  Students will solve right triangles (using prior knowledge of Pythagorean thm).
Learning Activities	Taking notes, doing guided practice problems, doing homework problems, watch instructional videos, work collaboratively to solve problems, play jeopardy for bonus points, take an exam
Additional Resources	Khan Academy videos

---

## **Basic Trigonometric Ratios**

---

## Overview

In this module, students will use trigonometric ratios and the Pythagorean theorem (prior learning) to solve right triangles. The immediate audience will be secondary education students (majority being sophomores) in Mr. Ramos' Geometry classes.

## Learning Objectives

On completion of this module, students will be able to:

- Use the sine, cosine, and tangent ratios.
- Use the inverse trigonometric ratios.
- Solve right triangles.
- Properly calculate trigonometric ratios, inverse trigonometric ratios, and follow the order of operations with technology (calculator).

## Learning Activities

1. Direct Instruction - Learning Sine, Cosine, Tangent (SOH CAH TOA)

### Trig Ratio Instructional Slides

2. Direct Instruction/Guided Practice/Individual Practice-Learning Inverse Trigonometric Ratios

### Inverse Trig Ratio Instructional Slides

3. Collaborative Study Groups/Jeopardy Review Game

## Jeopardy Review Game

Resources

[California Math Standards](#)

