

## MATH 112 Trigonometry - Syllabus

**Professor's Name:** Hilmar Castro  
**Professor's Email:** [hilmar.castro@qlu.ac.pa](mailto:hilmar.castro@qlu.ac.pa)  
**Office Hours:** Monday through Friday, by appointment

**Class Schedule:** M-W-F, 8am to 12pm  
W 1pm to 3pm



### Course Description

The overall objective of this course is to develop critical thinking skills necessary for entering Calculus 1. This course covers the topics in trigonometry, including trigonometric functions and their graphs, trigonometric identities and equations, and applications of trigonometry.

Note: This course does not count toward a mathematics major. Moreover, credit is NOT allowed for both Math 112 and Math 190 for any degree major.

### Course general objectives and goals

1. To become more effective problem solvers and have better understanding of how mathematics is used in the real world.
2. To communicate solutions clearly and completely.
3. To model and visualize data with functions and their graphs and to interpret the results.
4. To develop the practice of estimating and checking reasonableness of solutions obtained in applied problems.

### Course objectives

To develop skills necessary to mathematically model and then solve a variety of common application problems by: (a) representing mathematical information symbolically, visually and numerically; (b) using arithmetic, algebraic and geometric models to solve problems; (c) interpreting mathematical models, such as formulas, graphs and tables; (d) checking answers to mathematical problems for reasonableness, correctness and completeness of solutions. We will cover the most important aspects of the course in class but will NOT go over everything you need to know for exams. This course assumes that you'll learn much of the material by reading the text and doing problems on your own.

### Textbook

Fundamentals of Trigonometry, 9th Ed., by Swokowski & Cole.  
Algebra and trigonometry. 9<sup>th</sup> Ed by Larson.

**Assignments, quizzes, and exams:** Homework problems will be assigned in class after each section. Students are expected to read the material and complete the homework problems assigned. Homeworks will not be collected or graded, but the quiz and exam problems will be similar to the homework exercises. Quizzes will be based on the homework problems, and, together with homework and group assignments, will account for 20% of your grade. There will be two exams each worth 25% of your grade and a comprehensive or cumulative final exam worth 30% of your grade. Remember that on a quiz or an exam we expect more than just the correct answer: we want you to show your reasoning clearly. Quizzes will not be announced. There will be no make up for a missed quiz.

Under no circumstances will the Final Exam be given on an earlier or later date. Please keep this in mind when making any travel plans. Use of personal digital assistants or cell phones, etc. will not be allowed during the exams. If you happen to be absent on the day an exam is administered, a grade of 0 will be recorded. The Final Exam score may replace one of either the score of 0 on the missed exam or the lowest score on any of the first two exams provided the student has earned this privilege by demonstrating an exemplary behavior in class that is conducive to learning and provided also the student hasn't missed or been late for more than three class days.

**Grading:** Exams (2) 50% (25% each)  
Quizzes and Homework 20%  
Comprehensive Final Exam 30 %

**Grading system:**

<b>Grade</b>	A	A-	B+	B	B-	C+	C	D+	D	F
<b>Points</b>	94-100	90-93	86-89	83-85	80-82	76-79	70-75	66-69	60-65	<60

**Class Conduct:** Students are encouraged to ask questions and actively participate in class discussions. Students should follow rules of common courtesy. If a student is unable or unwilling to maintain an environment of mutual respect, professor reserves the right to ask said student to leave the classroom. **The use of Electronic Devices including Smart phones is strictly prohibited throughout the duration of the class** as the use of these would cause unnecessary distractions and disruptions in the classroom. If found using the phone (texting, calling) during class, your phone will be confiscated and given to the Academic staff and you won't get it back unless you and your parent or guardian come pick it up during regular school hours. Only in cases of emergency, where you are expecting an emergency call and with the professor's consent may you use your phone during class. If you are using your laptop, be reminded that using it to chat, update Facebook status, and for any other "social media" activities is strictly prohibited.

**Class Attendance:** Attendance is mandatory. You are always responsible for everything that is mentioned in class whether you are there or not. Students must attend all classes and be on time. If a student is absent or late on the day a quiz is given, a grade of 0 will be recorded. There will be NO MAKE-UP for quizzes. If a student is absent on the day a test is given, a grade of 0 will be recorded. There will be NO MAKE-UP for a missed exam except for extreme circumstances verified in writing.

### Attendance Policy

Students are responsible for attending at least 90% of the scheduled classes in order to have the right to receive a grade. The professor has the right to make an exception to the 90% attendance policy based on the student's situation and only if the student has requested the exception in writing.

### Academic Integrity

Academic dishonesty is prohibited at the University of Louisville-Panama. It is a serious offense because it diminishes the quality of scholarship, makes accurate evaluation of student progress impossible, and defrauds those in society who must ultimately depend upon the knowledge and integrity of the institution and its students and faculty. Academic dishonesty includes, but is not limited to: cheating, falsification, plagiarism, multiple submission, fabrication, complicity in academic dishonesty, and multiple submission. Penalizations for engaging in academic dishonesty may include: an F on the assignment, an F on the course, a permanent letter placed in the student's file, suspension, and expulsion. The extent of the penalization will be decided by the professor with due support from the university's academic authorities. For more information regarding academic integrity, you may access the document "Student's Rights and Responsibilities" at [www.glu.ac.pa](http://www.glu.ac.pa).

### Disability Policy

The University of Louisville- Panama is committed to providing access to programs and services for qualified students with disabilities. If you are a student with a disability and require accommodation to participate in and complete requirements for this class, contact the Academic Dean of UofLP-QLU, Mariana León, for verification of eligibility and determination of specific accommodations." Please speak to me about any concerns you may have. You may also access the complete Disability Policy at [www.glu.ac.pa](http://www.glu.ac.pa).

## MATH 112 Trigonometry - Course Outline

Week	Sessions
<b>1</b>	Monday: Presentation, Basic review.
	Wednesday: Angles and their measure. Right angle trigonometry The Trigonometric Functions. Graphs of the Trigonometric Functions Trigonometric Functions of Angles
	Friday: Values of the Trigonometric Functions. Inverse trigonometric functions. Applications and models. <b>Review and Exam 1</b>
<b>2</b>	Monday: Verifying Trigonometric Identities. Trigonometric Equations
	Wednesday: The Addition and Subtraction Formulas. Multiple-Angle Formulas Product-to-Sum and Sum-to-Product Formulas
	Friday: The Inverse Trigonometric Functions. <b>Review and Exam 2.</b>
<b>3</b>	Monday: The Law of Sines. The Law of Cosines
	Wednesday: Vectors. The Dot Product. Trigonometric form of a complex number
	Friday: Review and Final Exam

**\*Note: This syllabus is subject to change. Modifications to it will be announced in due time if any may be necessary.**