

# **Piedmont Technical College Course Syllabus**

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## **COURSE INFORMATION**

**Course Prefix/Number:** MAT 111

**Title:** College Trigonometry

**Responsible Division:** Arts and Sciences

**Last Day to Withdraw from this Course:** For the last date to withdraw from this course, consult the current *Student Calendar*.

### **Course Description:**

For course, credit hour, pre-requisite(s) and co-requisite(s) information, visit the Detailed Course Information page: [www.ptc.edu/courses/MAT111](http://www.ptc.edu/courses/MAT111).

### **Textbook and Other Materials:**

For textbook information and additional required and/or supplemental materials, visit the [college bookstore](http://www.ptc.edu/bookstore) (www.ptc.edu/bookstore).

### **Proctored Examinations:**

Proctored examinations for distance learning courses taken at non-PTC campuses may require a proctoring fee for each exam taken.

## **COURSE POLICIES**

Course policies are available online through the *Academic Catalog* and *Student Handbook*. Visit the [Course Policies page](http://www.ptc.edu/syllabus/policies) (www.ptc.edu/syllabus/policies) for a detailed list of important policies and more information.

## **GRADE POLICY**

Detailed grading policy information can be found on the [Grading Policy webpage](http://www.ptc.edu/grading-policy) (http://www.ptc.edu/grading-policy). Final grade appeal information is available in the [Academic Catalog](http://www.ptc.edu/catalog/) (http://www.ptc.edu/catalog/).

## **ACCOMMODATIONS**

### **Accommodations for ADA:**

Information is available on the [Student Disability Services webpage](http://www.ptc.edu/ada) (<http://www.ptc.edu/ada>).

## **TITLE IX HARASSMENT AND SEXUAL ASSAULT INFORMATION**

In accordance with Title IX of the Education Amendments of 1972, Piedmont Technical College does not discriminate on the basis of sex in its education programs or activities. Title IX protects students, employees, and applicants from sex discrimination in admissions and employment to include discrimination based on gender identity or failure to conform to stereotypical notions of masculinity or femininity. More information regarding Title IX, including contact information for the Title IX coordinators, is available at [Title IX Harassment and Sexual Assault Information](https://www.ptc.edu/about/legal-disclosures/title-ix-harassment-and-sexual-assault-information) (<https://www.ptc.edu/about/legal-disclosures/title-ix-harassment-and-sexual-assault-information>).

## **RATIONALE**

### **Why do I need this course?**

MAT 111 provides students with a strong background to enter career fields that require lifelong learning skills. This course provides students the mathematical background that is required in today's rapidly changing technological society. The topics covered strengthen the student's mathematical knowledge base and prepare them for the study of calculus and physics. The broad range of problem solving and critical thinking techniques developed in MAT 111 will help students develop a solid understanding of the content needed for exploring career and personal endeavors of their choice.

## **PROGRAM INFORMATION**

For program information including required courses, program learning outcomes, gainful employment information and advisement information, refer to the Academic Program webpage. Go to [Academics](http://www.ptc.edu/academics) (<http://www.ptc.edu/academics>), select your program, and then select Credentials Offered.

## **COURSE STUDENT LEARNING OUTCOMES**

Upon successful completion of this course and/or clinical, each student will be able to:

- Apply trigonometric functions to acute and general angles, real numbers, and circular functions.
- Graph trigonometric functions.
- Simplify expressions, solve equations using trigonometric identities, and verify trigonometric identities.
- Use the law of sines and cosines, vectors, polar coordinates, and complex numbers to solve applied problems.
- Graph and determine equations for the conic sections and parametric functions.

## **GENERAL EDUCATION COMPETENCIES**

### **Piedmont Technical College General Education Competencies for All Graduates:**

*This course may address one or more of the following General Education Competencies (assessment will be stated when applicable):*

#### **Communicate effectively.**

Assessment:

N/A

#### **Apply mathematical skills appropriate to an occupation.**

Assessment:

Tests and graded homework questions

#### **Employ effective processes for resolving problems and making decisions.**

Assessment:

Tests and graded homework questions

#### **Demonstrate the basic computer skills necessary to function in a technological world.**

Assessment:

N/A

*To validate proficiency in the general education competencies, students in some programs will be tested using Work Keys.*