

Piedmont Technical College Course Syllabus

COURSE INFORMATION

Course Prefix/Number: MAT 122

Title: Finite Mathematics

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/MAT122.

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?

Students in MAT 122 will be transferring to four-year colleges or entering the job market. The mathematical problem solving, computer/calculator, and decision-making skills will be used to solve problems in business, management, industry, social sciences, political science, health, and many other fields. The availability of online solvers and calculators has increased the emphasis on modeling the problem mathematically and interpreting the results. We will study systems of equations, matrices, linear programming, sets, counting, and logic.

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:

- Formulate and solve linear programming problems by graphing and by applying the Simplex Method.
- Solve problems by applying principles of logic, sets, and counting principles.
- Solve business, life science, and social science problems by the use of systems of equations, systems of inequalities, and matrices.
- Apply the rules of basic probability.
- Solve a variety of problems using graph theory techniques.
- Use technology for mathematical reasoning and problem solving.

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:

- N/A

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

Assessment:

- Linear Programming Project

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