# COURSE SYLLABUS

## Course Title:
Finite Mathematics

## Department:
Mathematics & Science

## Curriculum:
Mathematics

## Course Code:
MAT*152

## Prerequisites:
- C- or better in Intermediate Algebra (MAT*137) OR Intermediate Algebra for Liberal Arts (MAT*137L), OR C- or better in Elementary Algebra/Intermediate Algebra Combined (MAT*139) or appropriate placement test score

## Elective Type:
G/LA

## Credit Hours:
3

## Course Descriptors:
- Make certain that the course descriptors are consistent with college and Board of Trustees policies, and the current course numbering system.

## Contact Hours:
- Lecture: 3
- Clinical: 0
- Lab: 0
- Studio: 0
- Other: 0
- TOTAL: 3

## Class Maximum:
30

## Semesters Offered:
F/S

## Course Type:
L

## Corequisites:
None

## Other Requirements:
None

## Catalog Course Description:
This course introduces basic modern mathematical tools for the study of applications in business, life and social sciences. It also provides a more substantial algebraic foundation for those students who wish to continue with Calculus for Management, Life and Social Sciences or College Algebra or those who need a college-level Math course beyond Intermediate Algebra. Linear equations and inequalities, quadratic equations and inequalities, exponential and logarithmic equations, matrices and determinants, systems of equations and applications using linear programming are studied in depth. This course is required for those students wishing to articulate from Tunxis Community College into the Business program at University of Connecticut.

## Topical Outline:
1. Algebraic review of linear and quadratic equations and inequalities.
2. Systems of equations including 3x3 systems.
3. Basic matrix work and determinants.
4. Exponential and logarithmic equations
5. Applications using the above, as well as linear programming and the simplex algorithm.

## Outcomes:
Upon successful completion of this course, the student will be able to do the following:
### COURSE:
1. representing a problem or situation and its constraints using appropriate equations and/or inequalities
2. solving said problems, especially by the use of graphs, matrices, linear programming and/or the simplex algorithm
3. applying college-level algebraic manipulations to higher-level quantitative work

### PROGRAM: (Numbering reflects Program Outcomes as they appear in the college catalog)
N/A

### GENERAL EDUCATION: (Numbering reflects General Education Outcomes as they appear in the college catalog)
7. Quantitative Reasoning - Students will learn to recognize, understand, and use the quantitative elements they encounter in various aspects of their lives. Students will develop a habit of mind that uses quantitative skills to solve problems and make informed decisions.

- **Demonstrates:** Interprets numerical information and applies sufficient laws of logic and mathematics to solve problems using numbers, symbols, graphs and/or descriptions.
- **Does Not Demonstrate:** Misinterprets numerical information or insufficiently applies laws of logic and mathematics to solve problems using numbers, symbols, graphs and/or descriptions.

### Evaluation:
Assessment will be based on the following criteria:
- Quizzes
- Exams
- Projects and group work, where assigned

### Instructional Resources:
- List library (e.g. books, journals, on-line resources), technological (e.g. Smartboard, software), and other resources (e.g. equipment, supplies, facilities) required and desired to teach this course.
- Required: Classrooms with sufficient seating and board space
- Desired: None

### Textbook(s)
Refer to current academic year printout.