

# COUNTY COLLEGE OF MORRIS

## MATHEMATICS AND MATHEMATICS TEACHER EDUCATION



### WHAT YOU WILL LEARN

Mathematics is a powerful tool with many applications. Those with strong math skills are in demand. Advanced mathematical training can lead to many career opportunities including business, finance, medicine, technology, engineering, and basic sciences.

The Mathematics option is a curriculum which allows broad flexibility in selection of courses in preparation for transfer to baccalaureate or professional programs in mathematics. The Mathematics Education option is designed for transfer to a four-year program leading to certification for teaching.

### WHY STUDY MATHEMATICS AT CCM?

Our students interact with and take courses from outstanding faculty. The Department of Mathematics at CCM is comprised of faculty with backgrounds in pure mathematics, applied mathematics, and statistics with experience in corporate, consulting and public education. Our faculty strive to strengthen the mathematical foundation of all CCM students. The quality of our instructional programs is a top priority. We take pride in the quality and variety of opportunities available to our students. Our small class sizes and individual attention help students develop confidence in their mathematical abilities, become effective critical thinkers, grow academically and become productive members of society.

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### CAREERS

- Accountant
- Actuary
- Cryptographer
- Data Analyst
- Economist
- Financial Analyst
- Financial Planner
- Investment analyst
- Market Research Analyst
- Mathematician
- Operations research analyst
- Statistician
- Teacher  
(K-12, Higher Education)

### CONTACT INFORMATION

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## WHERE YOU CAN GO!

Transfer opportunities are available for students who wish to complete a more advanced degree in mathematics or other studies. Upon completion of the associate degree, students may elect to transfer to a four-year institution to further their education. The Mathematics option has strong transfer opportunities and agreements. Students in this program have transferred to:

- Harvard University
- Montclair State University
- New Jersey Institute of Technology
- Rutgers University
- Stevens Institute of Technology
- and more.

### Articulation Agreements

- Centenary University
- Fairleigh Dickinson University
- William Paterson University

## MATHEMATICS OPTION CURRICULUM

### General Education Foundation (32 CR)

#### COMMUNICATION (6 CR)

English Composition I	ENG 111	3
English Composition II	ENG 112	3

#### MATH/SCIENCE/TECHNOLOGY (11 CR)

Restricted Laboratory Science		4
Restricted Laboratory Science		4
Technology Elective		3

#### SOCIAL SCIENCE (3 CR)

Choose from General Education course list (Social Science)		3
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#### HUMANITIES (3 CR)

Choose from General Education course list (Humanities)		3
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#### SOCIAL SCIENCE OR HUMANITIES (3 CR)

Choose from General Education course list (Social Science or Humanities)		3
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#### GENERAL EDUCATION ELECTIVES (6 CR)

Choose from General Education course list (General Education)		3
		3

### MATHEMATICS CORE (15 CR)

Analytic Geometry and Calculus I	MAT 131	4
Analytic Geometry and Calculus II	MAT 132	4
Calculus III	MAT 230	4
Linear Algebra	MAT 228	3
FREE ELECTIVES		6

#### RESTRICTED ELECTIVE (7 CR)

Discrete Mathematics	OR MAT 225	4
Ordinary Differential Equations	MAT 244	
Computer Programming for Engineers	OR ENR 125	3
Introduction to Data Science	MAT 114	

**TOTAL** **60**

## TEACHER EDUCATION MATHEMATICS CURRICULUM

### General Education Foundation (32 CR)

#### COMMUNICATION (6 CR)

English Composition I	ENG 111	3
English Composition II	ENG 112	3

#### MATH/SCIENCE/TECHNOLOGY (11 CR)

Restricted Laboratory Science		4
Restricted Laboratory Science		4
Technology		3

#### SOCIAL SCIENCE (3 CR)

General Psychology	PSY 113	3
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#### HUMANITIES (3 CR)

3

#### SOCIAL SCIENCE OR HUMANITIES (3 CR)

3

#### GENERAL EDUCATION ELECTIVES (6 CR)

Speech Fundamentals	COM 109	3
Elective		3

### MATHEMATICS CORE (16 CR)

Precalculus	MAT 123	4
Analytic Geometry and Calculus I	MAT 131	4
Analytic Geometry and Calculus II	MAT 132	4
Calculus III OR	MAT 230	4
Analytic Geometry and Calculus I	MAT 131	4
Analytic Geometry and Calculus II	MAT 132	4
Calculus III	MAT 230	4
Ordinary Differential Equations	MAT 244	4

#### TEACHER EDUCATION CORE (12 CR)

Teaching in America	EDU 111	3
Behavior Observation in Education	EDU 211	3
Linear Algebra	MAT 228	3
Educational Psychology	PSY 217	3

**TOTAL** **60**

Note: You must see a faculty advisor to plan your sequence of courses. For the most up-to-date listing of courses, see the Curriculum Checklist.