

# Mathematics Teaching and Learning (Certificate)

The Graduate Certificate in Mathematics Teaching and Learning is an online program that focuses on developing knowledge and instructional approaches in teaching mathematics. The program will primarily serve practicing teachers in middle school through college settings, or those preparing for careers in such settings, who want to expand their expertise related to teaching and learning mathematics. Students will learn how to apply research-based understandings of students' thinking, pedagogical approaches, and broader educational issues (e.g., discourse and equity) to inform practices of teaching content such as geometry, algebra, and statistics.

## More Information

Mathematics Teaching and Learning Program Website (<https://ced.ncsu.edu/graduate/programs/certificate/mathematics-teaching-and-learning/>)

An application for acceptance into the Graduate Certificate in Mathematics Teaching and Learning is required for all new students. Applicants must complete the Graduate School application (<https://applygrad.ncsu.edu/apply/>). Requirements for admission to the certificate program include:

1. Completion of a bachelor's degree in mathematics education, mathematics, or statistics or a related field with a GPA of 3.0 or greater on a 4.0 scale.
2. Transcripts of all undergraduate and graduate course work (unofficial copies accepted)
3. A written statement of goals related to enrolling in the Graduate Certificate in Mathematics Teaching and Learning.

## Applicant Information

- **Delivery Method:** On-Campus, Online, Hybrid
- **Entrance Exam:** None
- **Interview Required:** None

## Application Deadlines

- **Fall:** July 15
- **Spring:** December 1
- **Summer 1:** April 15
- **Summer 2:** April 15

## Plan Requirements

| Code                          | Title                                     | Hours | Counts towards |
|-------------------------------|-------------------------------------------|-------|----------------|
| Select four of the following: |                                           |       | 12             |
| EMS 510                       | Interactions In the Mathematics Classroom |       |                |

|                    |                                               |           |
|--------------------|-----------------------------------------------|-----------|
| EMS 513            | Teaching and Learning of Algebraic Thinking   |           |
| EMS 514            | Teaching and Learning of Geometric Thinking   |           |
| EMS 519            | Teaching and Learning of Statistical Thinking |           |
| EMS 580            | Teaching Mathematics with Technology          |           |
| <b>Total Hours</b> |                                               | <b>12</b> |