

# STEM EDUCATION WITH A CONCENTRATION IN MATH AND SCIENCE EDUCATION, MA

## Introduction

Math-science educators are in high demand. CU Denver recognizes this shortage and prepares teachers to effectively guide today's learners. Math-science teachers need expertise in understanding STEM learning and highly effective assessment and teaching practices. CU Denver's MA in STEM Education with a concentration in math-science education prepares you to be a leading educator at the forefront of this field.

## Program Requirements

**This degree plan does not include a license or an endorsement.**

This degree has both on-campus and online course options. Online courses are 100% online only. Hybrid courses are available to distance students. Distance students participate via video conference in hybrid courses and local students attend face to face sessions. Therefore, the program may be completed with online courses.

Code	Title	Hours
<b>Core Courses</b>		
<b>Mathematics Education (MTED) on campus or online core</b>		
Select two of the following:		6
MTED 5030	Theories Of Mathematics Learning	
MTED 5040	Mathematics Teaching - Theory and Practice	
MTED 5050	Critique Of Mathematics Education Research	
MTED 5060	Developmental Pathways In Students' Mathematical Thinking	
MTED 5621	A World of (Different) Numbers: Quantity and Operation	
MTED 5622	Expanding Conceptions of Algebra	
MTED 5623	Geometrical Ways Of Reasoning	
MTED 5070	(Re)Humanizing the Teaching and Learning of Mathematics	
<b>Science Education (SCED) on campus or online core</b>		
Select two of the following:		6
SCED 5340	Equity & Culture in Science Education: Local/Global	
SCED 5500	The Nature of Science	
SCED 5350	Issues and Trends in Science Education	
STME 6110	Science and Math Curriculum Studies	
<b>Thematic Course Categories</b>		
In consultation and with approval from your faculty advisor, select five courses from the Thematic Course Categories to customize your learning: <a href="https://education.ucdenver.edu/academic-services/student-resources/thematic-course-categories">https://education.ucdenver.edu/academic-services/student-resources/thematic-course-categories</a> ( <a href="https://education.ucdenver.edu/academic-services/student-resources/thematic-course-categories/">https://education.ucdenver.edu/academic-services/student-resources/thematic-course-categories/</a> )		
Course 1		3
Course 2		3
Course 3		3
Course 4		3

Course 5	3
<b>Research Course</b>	
RSEM ____ <sup>1</sup>	3
<b>Total Hours</b>	<b>30</b>

<sup>1</sup> To be decided by student and Faculty Advisor.

## Capstone Project

The Capstone project fulfills the COMPS requirement for the MA Degree. The Capstone Project is completed in your final core course. The Capstone project should extend beyond your graduate coursework. The project can be on a topic of your choosing. Prior to beginning the project, get your advisor's approval for your project topic. The project can take many forms. Most typically, students submit a written paper as a final product. Yet, we are open to a range of possibilities. We recommend that the project be something that helps to further your learning and growth in your practice of teaching students. We intentionally provide a broad range of possibilities for final projects, so that we can best tailor the projects to students' learning and growth goals.

## Program Requirements and Courses

To complete the STEM Education program and earn a master's degree, students must complete the appropriate course work as outlined above. All courses require a grade of B- or better and a 3.0 minimum GPA is required for graduation.

## Planning

Students take 1-2 courses per semester. Core courses are offered one per semester on a rotating basis.

## Active Status

Students must complete their programs within seven years, maintaining a GPA of 3.0. Students typically take four courses each calendar year. Failure to enroll over three contiguous semesters will result in a requirement to submit readmission materials.