

# Learning and Teaching in STEM

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The Department of Science, Technology, Engineering and Mathematics (STEM) Education offers a Doctor of Philosophy (PhD) in Learning and Teaching in STEM with three areas of concentration: Science Education, Engineering and Technology Education, and Mathematics and Statistics Education.

We prepare educators and researchers for positions as teachers, leaders, and university faculty of the highest quality. We are particularly proud of our emphasis on the use of technology to enhance teaching. Students take courses in their educational specialty, in general professional education, and in academic discipline areas including: biological sciences, chemistry, computer science, earth science, engineering, graphic arts, interdisciplinary science, mathematics, physics, or statistics.

Doctoral students are knowledge-seekers and who are eager to pursue educational problems and develop critical thinking skills in a collaborative environment. The programs prepare individuals for positions in their fields of study related to:

- scholarly inquiry and discourse in their discipline,
- preparation of K-12 teachers,
- instruction and development issues in K-16, and
- leadership positions.

## Admission Requirements

Applicants must submit a completed application specific to the program concentration. All programs require GRE scores, 3 letters of recommendation, official transcripts, and a 1-2 page statement describing interests, background, and professional goals.

Please see the Learning and Teaching in STEM, PhD website for additional details. The deadlines for submission of an application, and academic and professional background necessary for admission differ by specific program area of study.

## Doctoral Degree Requirements

The Ph.D. program in Learning and Teaching in STEM requires a previous master's degree, a minimum of 54 semester hours of course work, and 9 semester hours of dissertation research beyond the Master's Degree requirements.

\*Note: Some programs may allow exceptional applicants to earn a Master's degree en route to a Ph.D., with up to 36 hours counting toward the Ph.D. with continuous enrollment.

## Student Financial Support

A small number of teaching and research assistantships are available, and out-of-state tuition remission may be available for one year for students on assistantships. Please discuss these opportunities directly with program area faculty.

## Degrees

- Learning & Teaching in STEM (PhD) (<http://catalog.ncsu.edu/graduate/education/learning-teaching-stem/learning-teaching-stem-phd/>)

- Learning and Teaching in STEM (PhD): Engineering and Technology Education (<http://catalog.ncsu.edu/graduate/education/learning-teaching-stem/engineering-and-technology-education/>)
- Learning and Teaching in STEM (PhD): Mathematics and Statistics Education (<http://catalog.ncsu.edu/graduate/education/learning-teaching-stem/mathematics-and-statistics-education/>)
- Learning and Teaching in STEM (PhD): Science Education (<http://catalog.ncsu.edu/graduate/education/learning-teaching-stem/science-education/>)

## Faculty

### Full Professors

Margaret R. Blanchard

Sarah J. Carrier

Aaron Catron Clark

Jo-Ann D. Cohen

Karen Flanagan Hollebrands

Carla Johnson

Melissa Gail Jones

Hollylynn Stohl Lee

Soonhye Park

Eric N. Wiebe

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### Associate Professors

Cesar Delgado

Cameron Denson

Jessica Heather Hunt

Erin Krupa

Temple A. Walkowiak

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### Assistant Professors

Robin Keturah Anderson

Kirstin Collette Rogis Busch

Sunghwan Byun

Ruby Ellis

Tamecia Raishaun Jones

Daniel Kelly

Jonee Wilson

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## **Practice/Research/Teaching Professors**

Cynthia Page Edgington

Matt Reynolds

Kevin Sutton