DOCTOR OF PHILOSOPHY

The Doctor of Philosophy degree program includes quality course work and research experiences, preparing students to be involved in mathematics education research. The program encompasses core courses and specialized study in mathematics education, leading to a dissertation on an original research question. Students may pursue individual interests, while joining in ongoing research projects of the Mathematics Education faculty.

MASTER OF SCIENCE

The Master of Science degree program requires a minimum of 32 credit hours. This option provides the opportunity to conduct meaningful instruction level research in the completion of a thesis.

MASTER OF EDUCATION

The Master of Education degree program requires a minimum of 36 credit hours. The Master of Education degree is a non-thesis degree only for alternatively certified teachers (those not certified to teach through a four-year university college of education).

RESEARCH IN MATH ED.

For current information regarding the breadth of research conducted by the core mathematics education faculty please refer to:
mathed.tamu.edu
aggiestem.tamu.edu
kate.tamu.edu
www.cehd.tamu.edu/directory

MATHEMATICS EDUCATION

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* denotes graduate faculty status.

TEACHING, LEARNING AND CULTURE

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Phone: (979)-845-8384
Fax: (979)-845-9663
PREPARING QUALITY MATHEMATICS EDUCATION LEADERS

One of the 12 imperatives of the Texas A&M University (TAMU) Vision 2020 is to strengthen our graduate programs. “We must create a dynamic, exciting, discovery-driven intellectual environment that will draw superior graduate students, comparable to those in the nation’s best graduate programs.”

The graduate mathematics education program at TAMU represents an updated approach to preparing leaders for 21st century mathematics education. Today’s elementary, middle, secondary and university mathematics education research embraces a variety of strategies and technologies. The TAMU graduate program in mathematics education includes work with the latest research findings, curriculum developments, computer-based teaching tools, Internet and web-based sources and information technologies such as modeling, visualization and data management. Students come from a variety of backgrounds and possess a wide array of experiences and achieve national exposure before graduation. As a result of mentorship by mathematics education faculty and through participation in extant research projects, graduate students present at local, regional and national conferences as well as publish in relevant journals.

The Aggie-STEM Project

Aggie STEM (Science, Technology, Engineering and Math) is a partnership of Texas A&M University’s College of Education and Human Development and the Dwight Look College of Engineering. Aggie STEM has now expanded to reach numerous T-STEM Academies and Texas independent school districts. Aggie STEM researches, creates and provides research-based professional development and other services for high-quality, secondary-level STEM teaching and learning.

PROGRAM GOALS AND CHARACTERISTICS

- Research-based degree with an emphasis on mathematics learning with understanding and how to advance mathematics performance for all students. Opportunity for individualized projects that expand knowledge about teaching and learning with and through technology.
- Technology-rich environment, not only in terms of instructional tools, but also in the opportunity to employ technology in collecting data, modeling applied situations and building representations of important mathematics concepts.
- Opportunity to study with a group of like-minded and motivated colleagues. Scheduled and available courses, making it possible to complete a degree within a well-defined time period.
- Course work and research available oncampus, as well as via the Internet and through distance learning; offering geographic and economic flexibility and accessibility.

DEGREE OVERIEWS

TAMU has several options for those interested in a graduate degree in mathematics education. Each program includes strong mathematics education theory, involvement in on-going research and writing and presenting papers.

Doctor of Philosophy (Ph.D.)

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<th>Course Type</th>
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<td>Core Courses</td>
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<tr>
<td>Research Courses†</td>
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<td>Mathematics Education</td>
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<td>Electives</td>
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Master of Science (M.S.)

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Master of Education (M.Ed.)**

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<tr>
<td>Mathematics Education</td>
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<td>MATH Content</td>
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<td>Minimum Total</td>
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† Research Core Options, A, B, C Only.
Option D with permission of the dissertation advisor.
** Alternatively Certified Only (Those not certified to teach through a four-year university college of education.)

Option A:
EDCI 605 or EDAD 655, EPSY 640 and EPSY 641

Option B:
EDCI 605 or EDAD 655, STAT 651 and STAT 652

Option C:
EDCI 686 Research Methods I, EDCI 687 Research Methods II and EDCI 688 Advanced Research Methods

Option D:
Only with the approval of full committee.

Note: For the remaining six hours of research see the website for the list of approved courses.

Image courtesy of: Aggie STEM Summer Camp
Dr. Robert M. Capraro working with students during the Aggie STEM summer camp for middle and high school students. The summer camp gives students real world experiences in STEM education through inquiry learning, improve SAT scores and provide a world class university experience with Texas A&M University professors in STEM fields.