The Master of Arts in Teaching (MAT) in Science Education degree program and the MAT in Mathematics Education degree program are designed to enhance the content knowledge and pedagogical content knowledge of science, technology, engineering and mathematics (STEM) teachers. Both programs share a set of core courses that allow students to explore knowledge common to both disciplines.

Students in science education or mathematics education can then collaborate to integrate science and mathematics education and to provide a better education for their students. Because many graduates of these MAT programs will rise to leadership positions such as department head or science and mathematics coordinator, the core courses provide fundamental skills in cognition, education research and assessment so that MAT graduates can evaluate educational strategies and thoughtfully advise their colleagues about them. The STEM content courses provide additional depth in specific science and mathematics content areas. Students may elect to write and defend a research-based thesis.

Both programs are designed for individuals with significant ability in a science or mathematics discipline and a serious commitment to teaching. They provide forward-looking opportunities for professional development for both new and experienced teachers.

Program Description
The MAT in Science Education and the MAT in Mathematics Education require the completion of a minimum of 36 semester credit hours. For complete admission and degree requirements, view the Graduate Catalog at catalog.utdallas.edu.

Career Opportunities
Graduates of the program seek positions such as: department head, science or mathematics coordinator and teacher.

 Marketable Skills
The Master of Arts in Teaching in Mathematics Education is a mathematics content-rich, practitioner-focused program that interweaves research-based STEM education with classroom-focused practicality. Designed with the experienced educator seeking to enhance their practice and leadership skills in mind, the MAT also works closely with the UTeach Dallas STEM teacher preparation program. Novice teachers and STEM degree holders seeking certification increase diversity of perspectives in a collaborative, supportive, hands-on, and dialog-rich environment. Current and future educators in upper elementary and above work together to gain and/or enhance a variety of skills including abilities to:

- Conduct oral and written communication in the context of mathematics instruction using both traditional and technology-based modalities
- Apply mathematical content knowledge, pedagogical content knowledge, education theory, and critical thinking to instructional design and delivery
- Integrate mathematics and science in a teaching context including appreciation of the dynamic nature of both disciplines
- Hone critical thinking skills in evaluating and applying mathematics research and education research utilizing the methodologies therein
- Develop a collaborative/shared learning culture and leadership with students, peers, and professional communities of practice