Science, Technology, Engineering, and Mathematics Education (STEM)

Specialization leading to Master of Arts in Teaching and Learning

Program Requirements (9 hours)
Core Courses (9 hours)
EDUTL 6808  Multicultural & Global Perspectives on T&L (3)
EDUTL 6050  Multiple Perspectives on T&L (3)
EDUTL 6053  Balanced Assessment of T&L (3)

Area of Study Required and Elective Courses
Required (3)
EDUTL 7741  Advanced Study of Learning & Cognition in STEM (3)

Elective (12-14)
EDUTL 6892  Special Topics in Education (1-4)
EDUTL 7189  Advanced Field Placement (3)
EDUTL 7701  Mathematics T&L in Elementary & Middle Schools (3)
EDUTL 7706  Science & Early Childhood Education (3)
EDUTL 7711  K-6 Number & Algebra (2)
EDUTL 7712  K-6 Measurement & Geometry (2)
EDUTL 7713  K-6 Data Analysis & Probability (2)
EDUTL 7715  Learning Progressions in Mathematics Education (3)
EDUTL 7716  Conceptual & Procedural Knowledge in Math Education (3)
EDUTL 7717  Teaching Mathematics (3)
EDUTL 7718  Student Learning Processes in Mathematics (3)
EDUTL 7719  Providing Professional Development in Math Education (2)
EDUTL 7723  Learning Progressions in Science Education (3)
EDUTL 7724  Teaching Evolution in Schools (3)
EDUTL 7725  The Nature of Science & Implications for Science Teaching (3)
EDUTL 7726  STEM Education in Informal Settings (3)
EDUTL 7731  Multimedia Tools for STEM Education (3)
EDUTL 7732  Robotics & Automation for STEM Education (3)
EDUTL 7744  Problem Solving in STEM (3)
EDUTL 7745  Classroom Discourse in STEM Learning (3)
EDUTL 7749  History, Future, & Practical Applications of Concept Inventories in STEM Education (3)

Minimum hours: 30

For More Information:  
Department of Teaching and Learning  
227 Arps Hall,  
1945 N. High St.  
614.292.2332  
tl-academicservices@osu.edu
Research Requirement (minimum of 3 hours)
Select **ONE** of the T&L Research courses below or one that is approved by your faculty advisor (minimum of 3 credit hours)
EDUTL 6052        Classroom-Based Inquiry (3)
EDUTL 7010        Diverse Approaches to Research on T&L (3)

Final Examination (1-3)
Students must select either a Thesis or Non-Thesis option and must be registered for at least 3 credit hours the term of graduation.

**Thesis**
EDUTL 7999        Thesis Research (3)

**Non-Thesis**
EDUTL 7193        Independent Study (1-3)

*Note: Students exact curriculum may vary depending upon program of study determined by student and advisor, and approved by the Graduate Studies Committee.*