Integrative Science, Technology, Engineering, and Mathematics Education (I-STEM ED) is defined as: “the application of technological/engineering design based pedagogical approaches to intentionally teach content and practices of science and mathematics education through the content and practices of technology/engineering education. Integrative STEM Education is equally applicable at the natural intersections of learning within the continuum of content areas, educational environments, and academic levels” (Wells & Ernst, 2012/15).

Master of Arts (MAED) Integrative STEM Education

Admission Requirements
Bachelor’s degree, 3.0+ GPA (min.) in final 60 SH of bachelor’s degree program; Resume

Degree Requirements
Approved Plan of Study (POS); 30+ Semester Hours (SH) of 5000 level courses (or higher) as shown below; Master’s Portfolio; Master’s Thesis/Project (Optional). All coursework for this MAED degree is available via synchronous web-based, audio/video delivery.

Integrative STEM Education Core Courses (15+ SH)
EDCI 5804: STEM Education Foundations (3 SH – Fall Semester)
EDCI 5814: STEM Education Pedagogy (3 SH – Fall Semester)
EDCI 5824: STEM Education Trends and Issues (3 SH – Spring Semester)
EDCI 5834: STEM Education Research (3 SH – Alternate Spring Semesters)
EDCI 5844: STEM Education Seminar (3 SH – Fall and Spring Semesters)
EDCI 5854: Biotechnology Literacy by Design (3 SH – Alternate Spring Semesters)
EDCI 5774: Readings in STEM Education (3 SH – Fall and Spring Semesters)
EDCI 5964: Field Studies in [I-STEM] Education (3 SH – Fall and Spring Semesters)

Electives
Options include: Educational Foundations; Educational Research; Science Education; Technology Education; Mathematics Education; Engineering Education; etc.

For more information
Teaching & Learning Administrative Assistant (540) 231-5558