VirginiaTech
College of Liberal Arts and Human Sciences

Integrative STEM Education
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Integrative Science, Technology, Engineering, and Mathematics Education is defined as: "technological/engineering design based pedagogical approaches used to *intentionally* teach the content and practices of science, technology, engineering 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, 2012/2015).

Master of Arts (MAED)
Integrative STEM Education (I-STEM ED)

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 may be taken from Virginia Tech online or conventionally, or transferred in from other universities (subject to approval by the student's graduate committee).

Integrative STEM Education Core Courses (15+ SH)

EDCI 5804: I-STEM Education Foundations	(3 SH – Fall Semester)
EDCI 5814: I-STEM Education Pedagogy	(3 SH – Fall Semester)
EDCI 5824: I-STEM Education Trends and Issues	(3 SH – Spring Semester)
EDCI 5834: I-STEM Education Research	(3 SH – Alternate Spring Semesters)
EDCI 5844: I-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

Enrollment Services Assistant (540) 231-5348