SCIENCE, TECHNOLOGY, ENGINEERING & MATH EDUCATION (STME)

STME 1000 - STEM Methods (3 Credits)
This course provides an overview of STEM practices and philosophies in PK-12 education. STEM trends, foundations of practice, and resources are examined. Max hours: 3 Credits.
Grading Basis: Letter Grade

STME 1001 - Lived Experiences and 21st Century Skills: Informal STEM Education (1-6 Credits)
This course connects 21st century skills embedded in Informal STEM learning contexts with students’ lived experience. Learning activities may include STEM camps, coding camps, STEM bootcamps to develop educational and workplace competencies. Repeatable. Term offered: Summer. Max hours: 6 Credits.
Grading Basis: Letter Grade
Typically Offered: Summer.

STME 3544 - Community-STEM Leadership (3 Credits)
In this learning opportunity, we will explore ways to think about informal and formal learning spaces with a lens of STEM Leadership. Restriction: Restricted to EDHD-PhD and LDRE-EDd majors within the School of Education and Human Development. Cross-listed with STME 7010. Max hours: 3 credits.
Grading Basis: Letter Grade
Restriction: Restricted to EDHD-PhD and LDRE-EDd majors within the School of Education and Human Development.

STME 4001 - Planning for Learning in Mathematics and Science (3 Credits)
This course explores aspects of complex curriculum and instructional concepts through the lens of mathematics and science educators. A focus will include: Socio-cultural learning theory in Math and Science; standards-based instruction; instructional design; formative & summative assessment, and differentiation so that meaningful instruction becomes accessible to all students. Cross-listed with STME 5001. Max hours: 3 Credits.
Grading Basis: Letter Grade

STME 4020 - Learning and Assessment in STEM: Embracing Design Thinking (3 Credits)
This course emphasizes student-centered, wonder-driven STEM education. Explore Design Thinking’s integration for enriched inquiry-based learning in math, science, engineering, and technology. Learn strategies for inclusivity, differentiation, and accommodations. Master formative, summative assessments, including handling high-stakes evaluations. Restriction: Professional Year Admission required. Cross-listed with STME 5020. Max hours: 3 Credits.
Grading Basis: Letter Grade
Professional Year Admission required. Students must be enrolled in one of the following plans: ECED-LICU or EGLH-LICU or ELED-LICU or FWLF-LICU or FWLS-LICU or MATH-LICU or MSMA-LICU or SCIG-LICU or SPED-LICU or SSSS-LICU

STME 4030 - Exploring Approaches to STEM Education: Making Student Learning Visible (3 Credits)
This course delves into inventive STEM education, merging Design Thinking principles. Emphasis on playful, visible learning, and interdisciplinary connections. Online format fosters collaborative, flexible digital atelier experiences. Restriction: Professional Year Admission required. Cross-listed with STME 5030. Max hours: 3 Credits.
Grading Basis: Letter Grade
Professional Year Admission required. Students must be enrolled in one of the following plans: ECED-LICU or EGLH-LICU or ELED-LICU or FWLF-LICU or FWLS-LICU or MATH-LICU or MSMA-LICU or SCIG-LICU or SPED-LICU or SSSS-LICU

STME 4051 - STEM Capstone: Secondary Education (3 Credits)
This course provides Secondary STEM Education students with a capstone learning experience that integrates knowledge of STEM content, students, and school context into socially-just and culturally responsive practices. Cross-listed with STME 5051. Restriction: Professional Year Admission required. Max hours: 3 Credits.
Grading Basis: Letter Grade
Professional Year Admission required. Students must be enrolled in one of the following plans: ECED-LICU or EGLH-LICU or ELED-LICU or FWLF-LICU or FWLS-LICU or MATH-LICU or MSMA-LICU or SCIG-LICU or SPED-LICU or SSSS-LICU