Merrimack





STEM Education

STEM (Science, Technology, Engineering & Mathematics) Education is a cutting-edge interdisciplinary major that prepares teachers to be competent and effective across the areas of math, engineering and science. The program helps future teachers understand the process of science & engineering and provides the foundation for teaching the "big ideas," the beauty, and logic of the natural world. The program provides key courses within the School of Science & Engineering as well as thematic courses on the processes of scientific literacy and the teaching of scientific knowledge. This program is only open to Education majors as a double-major towards licensure in Early Childhood Education, Elementary Education, and/or Moderate Disabilities.

STEM EDUCATION PROGRAM REQUIREMENTS			
STEM Foundational		STEM Electives (Choose Three):	
STM 1010 Foundations of STEM	4	<u>Life Sciences:</u>	
BIO 1028 Principles of Biology II	4	BIO 1027 Principles of Biology I	4
CHM 1110 General Chemistry OR	4	BIO 3009 Environment, Ecology and Society	4
CHM 1210 Chemistry for Health Professions		HSC 1106 Human Biology	4
PHY 2201 General Physics OR	4	HSC 2300 Nutrition, Diet and Health	4
PHY 2211 Physics I			
MTH 1217 Calculus I OR	4	Physical Sciences:	
MTH 1314 Discrete Mathematics		AST 1101 Introduction to Astronomy	4
Technology or Engineering (one course)	4	CHM 1120 General Chemistry II OR	4
		CHM 1220 Chemistry for the Health Professions II 4	
Practicum and Capstone		PHY 2202 General Physics II OR	4
STM 4000 STEM Practicum	4	PHY 2212 Physics II	4
STM 3000 STEM Capstone	4		
		Mathematics:	
		MTH 1111 Basic Statistics	4
		MTH 1112 Adventure in Mathematics	4
		MTH 1217 Calculus I	4
		MTH 1218 Calculus II	4
		MTH 1314 Discrete Mathematics	4
		Technology/Engineering:	
		CEN 1001 Introduction to Engineering	4
		CSC 1510 Introduction to Information Technology	4
		CSC 2210 Introduction to Computational Science	4
		EEN 1177 Renewable Energy and Energy Efficiency OR	4
		EEN 1065 Introduction to Electricity and Electronics for Non-Engineers	

GENERAL EDUCATION REQUIREMENTS

All students must meet the College's General Education (formerly referred to as Institutional & Distributional) requirements by successfully completing approved courses on the Liberal Studies Core Curriculum Master List.

Additionally, students seeking DESE (Department of Elementary and Secondary Education) teacher licensure must complete DESE distribution requirements. With careful planning, students can choose courses that fulfill both Merrimack College General Education requirements and DESE licensure requirements. Please meet with your advisor to create a course schedule.

Please note that the former Institutional & Distributional requirements still apply to current students. The new General Education requirements apply only to incoming fall 2012 students and beyond (and all transfer students).

If you have questions or need more information, please contact the School of Education at **978-837-5452**. **www.merrimack.edu/schoolofeducation**