STEAM FOCUSED ELEMENTARY EDUCATION PROGRAM
Bachelor of Arts in Multidisciplinary Studies

WHAT IS STEAM?
STEAM refers to Science, Technology, Engineering, Arts and Math education. STEAM integration is an innovative way to think about teaching math and science in the K-12 setting. It encourages student learning and confidence in math and science courses.

WHY STEAM?
Traditional elementary education focuses on one subject at a time, learning a progression of skills to master a content area. In contrast, STEAM education focuses on solving real world problems which cross disciplinary boundaries.

TEACHER EDUCATION AND CERTIFICATION
Teacher Education and Certification (TEC) is a structured education strategy integrating classroom studies with learning through field experiences related to a student’s academic or career goals. It provides progressive opportunities to incorporate theory and practice. A student interested in teaching elementary education may begin taking coursework toward teacher certification as early as one’s freshman year. Students will earn a Bachelor of Arts degree in Multi-Disciplinary Studies with a focus in math or science from Missouri S&T and elementary teaching certification (grades 1-6) in Missouri. All of the course work required in this program is available on the Missouri S&T campus. In addition, students will obtain traditional credits for classwork done on campus as well as embedded credit for learning activities completed in a 1st through 6th grade classroom with a cooperating teacher. Students will obtain over 180 hours in the field prior to their student teaching semester. All student teaching and clinical experiences are arranged with area public, or accredited private, schools.

Many surrounding states have cooperating agreements with Missouri with respect to certification requirements. Some states allow teachers to obtain a temporary certificate which allows them to teach until the requirements of that particular state are completed.

The purpose of TEC is to develop teachers as decision makers and reflective thinkers while helping satisfy the continuing need for well-qualified teachers in Missouri schools and across the nation.

Teacher Education and Certification
573-341-4692
http://teachereducation.mst.edu

Revised 7/1/2019
Curriculum

General Education: (62-67hrs)

Communication Skills ...................................... 9
English 1120-Exposition and Argumentation ........ 3
English 1160-Writing & Research .................... 3
Speech 1185-Principles of Speech .................. 3

Humanities .................................................. 12
Literature..................................................... 3
**Foreign Language......................................** 11
Art 1180, Music 1150 .................................. 3
Philosophy 1105-Intro to Philosophy ............... 3
History 1300-American History to 1877 ....... 3 OR
1310-American History Since 1877 ............. 3

Social Science ............................................. 18
Psychology 1101-General Psychology ............... 3
Economics 1100-Principles of Microeconomics .. 3 OR
1200-Principles of Macroeconomics ............. 3
History 2110-World Regional Geography .......... 3
History 1100-Early Western Civilization ....... 3
History 1200-Modern Western Civilization ...... 3

Math/Science ............................................ 23-28
Biology 1113-General Biology ....................... 3
and 1219-General Biology Lab ......................... 2
Physics 1145-College Physics I (3) OR
1505-Introductory Astronomy (3)
Biology 1223-Biodiversity ......................... 3
and 1229-Biodiversity Lab ......................... 1
Comp Sci 1570-Intro to Programming (3) OR
IS&T 1551-Implementing Information Systems:
User Perspective (3) OR
1971-Intro to Programming Methodology (2)
and 1981-Programming Methodology Lab (1) OR
1970-Basic Scientific Programming (2)
and 1980-Computer Programming Lab (1) OR
1972-Intro to MATLAB Programming (2)
and 1982-MATLAB Programming Lab (1)
Math 1103-Fundamentals of Algebra .......... 3 OR
1120-College Algebra .................................. 5
Math 1140-College Algebra ......................... 3 OR
1160-Trigonometry .................................. 2
Geology 1110-Physical and Environmental ... 3 OR
Chemistry 1310-General Chemistry I .......... 4
and 1319-General Chemistry Lab ................. 1

Professional Requirements ......................... 13
Educ. 1040-Perspectives in Education ............ 2
Educ. 1174-School Organization & Admin for
Elementary and Secondary Teachers .......... 2
Psych 2300/Educ. 2102-Educational Psychology .. 3
Psych 3310-Developmental Psychology ......... 3
Psych 4310/Educ. 4310-Psychology of the Exceptional
Child ....................................................... 3

Clinical Experience ..................................... 15
Educ. 1104-Teacher Field Experience .......... 2
Educ. 4298-Student Teaching Seminar .......... 1
Educ. 4299-Student Teaching .................. 12

Degree ..................................................... 33
Educ. 3530-Integrated SS and Humanities for the Elem
Classroom ............................................. 3
Educ. 3430-Literature for Children ............. 3
Educ. 3220-Teaching Science in the Elem Classroom .. 3
Educ. 3215-Teaching of Reading in Elem and Middle
School .................................................. 3
Educ. 3216-Teaching Reading in Content Area ... 3
Educ. 3217-Analysis and Correction of Reading
Difficulties ............................................. 3
Educ. 3218-Language Arts for Elem Teachers ... 3
Educ. 3203-Intro to STEM Education .......... 3
Educ. 3221-Teaching Math in Elem and Middle
Schools ................................................. 3
Educ. 3222-Geometric Concepts for Elem Teachers .. 3
Educ. 3340-Current Issues in Edu: Performance Based
Assessment, Intermediate ................. 3

**Foreign Language requirement waived at
completion of EDUC courses

Total: 123-128 hours

Revised 7/1/2019