

MIDDLE GRADES STEM, BEB

Pending Washburn University Board of Regents and Kansas State Department of Education approval

The focus of the Middle Grades STEM Education program is on science and mathematics education and on integrating STEM throughout the curriculum. The program prepares students for licensure in both mathematics and science education in grades 6-8. Candidates for the degree and licensure in Middle Grades STEM Education are advised by the faculty of the Department of Education.

Pre-admission courses required for formal admission to teacher education:

Code	Title	Hours
ED 155	Teaching, Learning, Leadership	3
ED 285	Educational Psychology	3
Total Hours		6

Education Core Courses:

Code	Title	Hours
ED 165	Ed. 1, Examining Teaching as a Profession: Diversity 1, Literacy 1, Technology 1	3
ED 275	Ed. 2 Exploring Teaching as a Profession (Classroom Management 1, Diversity 2, Technology 2) Ed. 2	3
ED 295	Ed. 3 Experiencing Teaching as a Profession (Classroom Management 2, Diversity 3, Literacy 2)	3
ED 395	Ed. 4 Extending Teaching as a Profession (Classroom Management 3, Literacy 3, Technology 3)	3
ED 302	Teaching Exceptional Learners	3
ED 354	Curriculum and Assessment	3
ED 420	K - 6 Student Teaching	8-12
Total Hours		26-30

Content/General Education/University Requirements:

Code	Title	Hours
University Requirements		
EN 101	First Year Writing	3
EN 300	Advanced College Writing	3
MA 116	College Algebra ¹	3
Subtotal		9
Arts and Humanities		
CN 150	Public Speaking	3
Humanities Electives (from approved General Education List in 2 disciplines)		6
Subtotal		9
Social Sciences		
PY 100	Basic Concepts in Psychology	3
PY 211	Adolescent Psychology	3

SO 101	Social Problems	3
Subtotal		9

Mathematics and Natural Sciences

AS 104	Life in the Universe	3
BI 100	Introduction to Biology	3
MA 117	Trigonometry	3
MA 140	Statistics	3
MA 204	Number Theory and Discrete Math for Middle School and Secondary Teachers	3
MA 230	Mathematical Representations for Secondary Mathematics	4
MA 320	Mathematics for Middle School Teachers	3
MA 381	History and Literature of Mathematics	3
PS 108	Physical Science	3
Subtotal		28

STEM Courses

ED 217	Introduction to STEM Education	3
CH 317	Chemistry for STEM Educators I	3
ED 314	Chemistry Methods for STEM Edu	3
PS 318	Earth and Space Science for STEM Educators I	3
ED 318	Earth/Space Science for STEM E	3
BI 319	Biology for STEM Educators	3
ED 319	STEM Practicum I	1
EG 320	Engineering for STEM Educators	3
ED 321	STEM Practicum II	1
Subtotal		23

Total Hours **78**

¹ Must take MA 116 and not MA 112 to satisfy this degree