BSEd in Secondary Education with Emphasis in Mathematics Education

Degree Program Description

The Bachelor of Science in Education in Secondary Education prepares students to work with children from ninth through twelfth grade in public, private, and alternative school systems. You may consider a degree in education if you enjoy working with children and/or adolescents, want to strengthen the future through education, and want to make a difference in the lives of others. MU Students work closely with mentors, practicing teachers, administrators, and university faculty to develop the knowledge and skills to enhance learning outcomes for children and youth. The coursework through the College of Education & Human Development focuses on teachers' roles in facilitating learning at all levels of development and considers the influences of cultural, political, historical, and economic factors on students, teachers, and schools. Upon successfully completing the initial teacher certification process, the state grants you certification in secondary mathematics. Practical and rewarding clinical training in schools and agencies begins sophomore year and continues each semester culminating in a senior-level teaching internship, enhancing teaching skills and confidence. Coursework within Secondary Mathematics provides you with research-based methods of teaching mathematics.

Major Program Requirements

Students must complete all university (http://catalog.missouri.edu/academicdegreerequirements/universityrequirements/), general education (http://catalog.missouri.edu/academicdegreerequirements/generaleducationrequirements/), and content requirements, in addition to degree requirements. Please meet with an Academic Advisor to discuss degree requirements and to create a semester plan.

Teacher Education programs in the College of Education & Human Development are accredited by the Missouri Department of Elementary and Secondary Education (DESE (https://dese.mo.gov/)). Curriculum changes mandated to earn teacher certification may become effective at any point during your academic program. Therefore, it is extremely important that you DO NOT SELF ADVISE.

Early Experiences		
LTC 1100	Orientation	1
or SPC_ED 1100	Orientation: Special Education	
LTC 2200	School Health and Student Wellbeing	3
ESC_PS 2010	Inquiry Into Learning I	3
ESC_PS 2014	Inquiry into Learning I - Field Experience	1
LTC 2040	Inquiring into Schools, Community and Society I	3
or LTC 2040H	Inquiring into Schools, Community and Society I - Honors	
LTC 2044	Inquiry into Schools, Community and Society: Field	1
IS_LT 2467	Inquiry into Empowering Learners with Technology	3
Mid-Level Experiences		
LTC 4571	Introduction to Teaching Mathematics in Middle and Secondary Schools	3
LTC 4574	Intro. Teaching Math in Middle and Secondary School Field Experience	1
LTC 4560	Reading and Writing in the Content Areas	3
SPC_ED 4310	Behavioral and Classroom Management	3
LTC 4581	Teaching Mathematics in Middle and Secondary Schools: Focus on Algebra and Technology	3
LTC 4584	Teaching Math in Middle and Secondary Schools: Algebra and Technology Field	1
SPC_ED 4020	Teaching the Exceptional Learner	3
LTC 4565	Reading and Writing in the Content Areas II	3
Advanced-Level Experiences		
LTC 4971	Internship and Capstone Seminar	12
LTC 4971H	Internship and Capstone Seminar - Honors (Honors students can choose to enroll in 6 credit hours of LTC 4971H and 6 credit hours of LTC 4971 to fulfill 12 credit hour requirement for Internship and Capstone Seminar.)	
LTC 4590	Teach.Math in Sec.Schools: Focus on Geometry, Probability and Statistics	3
LTC 4594	Teach Math in Sec Sch: Focus on Geometry/Probability	1
LTC 4460	Teaching English to Speakers of Other Languages	3
or LTC 4460H	Teaching English to Speakers of Other Languages - Honors	
ED_LPA 4060	Inquiring into Schools, Community and Society II	3
Content Area		
MATH 1500	Analytic Geometry and Calculus I	5
or MATH 1500H	Analytic Geometry and Calculus I - Honors	
MATH 1700	Calculus II	5
or MATH 1700H	Calculus II - Honors	
MATH 2300	Calculus III	3
or MATH 2300H	Calculus III - Honors	
MATH 2320	Discrete Mathematical Structures (Recommended)	3
or MATH 3000	Introduction to Advanced Mathematics	
MATH 4060	Connecting Geometry to Middle and Secondary Schools (Recommended)	3
or MATH 4100	Differential Equations	
MATH 4140	Matrix Theory	3
MATH 4510	Higher Algebra	3
MATH 4350	Introduction to Non-Euclidean Geometry	3
STAT 4050	Connecting Statistics to Middle and Secondary Schools (Recommended)	3
or STAT 4710	Introduction to Mathematical Statistics	
INFOTC 1040	Introduction to Problem Solving and Programming	3
or CMP_SC 1050	Algorithm Design and Programming I	
Math Elective (Choose one)		3
MATH 4100	Differential Equations	
MATH 4330	Theory of Numbers	

MATH 4150	History of Mathematics
MATH 4400	Introduction to Topology

Semester Plan

Below is a sample plan of study, semester by semester. A student's actual plan may vary based on course choices and where options are available.

First Year			
Fall	**CR**	**Spring**	**CR**
LTC 1100	1	LTC 2200	3
MATH 1500	5	ENGLSH 1000	3
Humanities	3	Humanities	3
American History or Government	3	MATH 1700	5
Elective	2		
	14		**14**
Second Year			
Fall	**CR**	**Spring**	**CR**
ESC_PS 2010 or LTC 2040 (Social Science)	3	ESC_PS 2010 or LTC 2040 (Social Science)	3
ESC_PS 2014 or LTC 2044	1	ESC_PS 2014 or LTC 2044	1
MATH 2300	3	IS_LT 2467	3
Writing Intensive	3	Lab Science	3
Humanities	3	Social or Behavioral Science	3
INFOTC 1040	3	MATH 2320	3
	16		**16**
Third Year			
Fall	**CR**	**Spring**	**CR**
LTC 4571	3	LTC 4581	3
LTC 4574	1	LTC 4584	1
LTC 4560	3	LTC 4565	3
SPC_ED 4020	3	SPC_ED 4310	3
MATH 4350	3	STAT 4050	3
MATH 4140	3	MATH 4060	3
	16		**16**
Fourth Year			
Fall	**CR**	**Spring**	**CR**
LTC 4971	12	LTC 4590	3
		LTC 4594	1
		ED_LPA 4060	3
		LTC 4460	3
		Math Elective (MATH 4100, 4330, 4150, 4400)	3
		MATH 4510	3
	12		**16**

Total Credits: 120