

BSEd in Secondary Education with Emphasis in Physics

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 physics. 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 Physics provides you with experience in the methods of teaching earth science and supporting learners in the development of scientific literacy. This includes consideration of the nature of science, methods for teaching science, and strategies for assessing science learning.

Major Program Requirements

Students must complete all university (<http://catalog.missouri.edu/academicdegree/requirements/universityrequirements/>), general education (<http://catalog.missouri.edu/academicdegree/requirements/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.

Cultural Diversity Requirement-Choose one of the following, or a course from the Multicultural Certificate Course List ^{The course must be in addition to major Education and content course requirements (it cannot double dip with any other professional Education course requirement or content course requirement); however, it may count towards a general education requirement.} 3

ESC_PS 2000	Experiencing Cultural Diversity in the United States	3
or H_D_FS 2300	Multicultural Study of Children and Families	
or Multicultural Certificate Course (https://multicultural.missouri.edu/application/course-list/)		

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
or ESC_PS 2014H	Inquiry into Learning I - Field Experience - Honors	
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 4631	Teach.Sci.Second.Sch.:Phil.,Hist., Sci.Inq.,Curr., Assm., & Teach I	4
LTC 4634	Teaching Middle and Secondary Science I Field	1
LTC 4560	Reading and Writing in the Content Areas	3
LTC 4460	Teaching English to Speakers of Other Languages	3
or LTC 4460H	Teaching English to Speakers of Other Languages - Honors	
LTC 4641	Teaching Middle and Secondary Science II	3
LTC 4644	Teaching Middle and Secondary Science II 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 4651	Teach.Sci.Second.Sch.:Phil.,Hist.,Sci.Inq. & Tech III	3
LTC 4654	Teach Sci MS/Sec Sch: Phil,Hist,Sci Inq,Curr,Assm & Tech III Fld	1
ED_LPA 4060	Inquiring into Schools, Community and Society II	3
SPC_ED 4310	Behavioral and Classroom Management	3
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.)	

Content Area

PHYSICS 2750	University Physics I	5
or PHYSICS 2750H	University Physics I - Honors	
PHYSICS 2760	University Physics II	5
or PHYSICS 2760H	University Physics II - Honors	
PHYSICS 3150	Introduction to Modern Physics	3
PHYSICS 4050	Electronic Laboratory	3
Physics Elective (Choose One)		
PHYSICS 4060	Advanced Physics Laboratory I	
PHYSICS 4120	Introduction to Thermodynamics	
PHYSICS 4190	Physics and Chemistry of Materials	
MATH 1500	Analytic Geometry and Calculus I	5
or MATH 1500H	Analytic Geometry and Calculus I - Honors	

MATH 1700 or MATH 1700H	Calculus II Calculus II - Honors	5
MATH 2300 or MATH 2300H	Calculus III Calculus III - Honors	3
BIO_SC 1500 or BIO_SC 1500H or BIO_SC 1010 & BIO_SC 1020	Introduction to Biological Systems with Laboratory (Recommended) ^{BIO_SC 1030} accepted in transfer only Introduction to Biological Systems with Laboratory Honors General Principles and Concepts of Biology and General Biology Laboratory	5
CHEM 1320 or CHEM 1320H	College Chemistry I College Chemistry I - Honors	4
GEOL 1200 or GEOL 1200H or GEOL 1100	Environmental Geology with Laboratory (Recommended) Environmental Geology with Laboratory - Honors Introduction to the Earth with Laboratory	4

BIO_SC 1500	5
	15

Total Credits: 121

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 ENGLISH 1000	3
Cultural Diversity Requirement (choose a Social or Behavioral Science)		3 Humanities	3
American History or Government		3 MATH 1700	5
MATH 1500		5 PHYSCS 2750	5
GEOL 1200		4	
	16		16

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
Humanities and Writing Intensive		3 LTC 2200	3
MATH 2300		3 Humanities	3
PHYSCS 2760		5 PHYSCS 4050	3
	15		13

Third Year			
Fall	CR	Spring	CR
LTC 4631		4 LTC 4641	3
LTC 4634		1 LTC 4644	1
SPC_ED 4020		3 LTC 4565	3
LTC 4560		3 LTC 4460	3
IS_LT 2467		3 CHEM 1320	4
PHYSCS 3150		3 PHYSCS 4060, 4120, or 4190	3
	17		17

Fourth Year			
Fall	CR	Spring	CR
LTC 4651		3 LTC 4971	12
LTC 4654		1	
ED_LPA 4060		3	
SPC_ED 4310		3	