Mizzou
University of Missouri

BSEd in Secondary Education with Emphasis in Chemistry

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 chemistry. 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 Chemistry provides you with experience in the methods of teaching chemistry and supporting learners in the development of scientific literacy. This includes consideration of the nature of science, methods for teaching science, strategies for assessing science learning, and pathways for developing into a professional chemistry educator.

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.

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	
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		
CHEM 1320	College Chemistry I	4
or CHEM 1320H	College Chemistry I - Honors	
CHEM 1330	College Chemistry II	4
or CHEM 1330H	College Chemistry II- Honors	
CHEM 2100	Organic Chemistry I	3
CHEM 2110	Organic Chemistry II	3
CHEM 2130	Organic Laboratory I	2
or CHEM 2130H	Organic Laboratory I - Honors	
CHEM 3200	Quantitative Methods of Analysis with Lab	4
CHEM 4310	Physical Chemistry I	3
BIOCHM 3630	General Biochemistry	3

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	
BIO_SC 1500	Introduction to Biological Systems with Laboratory (Recommended)	5
or BIO_SC 1500H	Introduction to Biological Systems with Laboratory Honors	
or BIO_SC 1010 & BIO_SC 1020	General Principles and Concepts of Biology and General Biology Laboratory	
Or the following:		
BIO_SC 1030	General Principles and Concepts of Biology with Laboratory (Transfer Only)	
PHYSCS 1210	College Physics I	4-5
or PHYSCS 2750	University Physics I	
or PHYSCS 2750H	University Physics I - Honors	
GEOL 1200	Environmental Geology with Laboratory (Recommended)	4
or GEOL 1200H	Environmental Geology with Laboratory - Honors	
or GEOL 1100	Introduction to the Earth with Laboratory	

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
Cultural Diversity Requirement (Choose a Social or Behavioral Science)	3	ENGLSH 1000	3
MATH 1500	5	MATH 1700	5
American History or Government	3	CHEM 1330	4
CHEM 1320	4		
	16		**15**

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
Writing Intensive & Humanities	3	IS_LT 2467	3
Humanities	3	Humanities	3
CHEM 2100	3	CHEM 2110	3
BIO_SC 1500	5	CHEM 2130	2
	18		**15**

Third Year			
Fall	**CR**	**Spring**	**CR**
LTC 4631	4	LTC 4641	3
LTC 4634	1	LTC 4644	1
SPC_ED 4020	3	LTC 4460	3
LTC 4560	3	LTC 4565	3
CHEM 3200	4	BIOCHM 3630	3
		PHYSCS 1210 or 2750	4-5
	15		**17-18**

Fourth Year			
Fall	**CR**	**Spring**	**CR**
LTC 4651	3	LTC 4971	12
LTC 4654	1		
ED_LPA 4060	3		
SPC_ED 4310	3		
GEOL 1200	4		
CHEM 4310	3		
	17		**12**

Total Credits: 125-126