

# East Central College — Missouri S&T

## Chemistry BA with Secondary Education Teacher Certification

Transfer Guide Effective as of Fall 2025

### East Central College

### Missouri S&T

#### Communication Skills

Take all courses.

ENG 101	English Composition I	3	ENGLISH 1120	Exposition and Argumentation	3
ENG 102 or ENG 104	English Composition II or Technical Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
		Total Hours	6		
				Total Hours	6

#### Social Sciences

Take all courses.

CIV 201	European Civilization I	3	HISTORY 1100	Early Western Civilization	3
CIV 202	European Civilization II	3	HISTORY 1200	Modern Western Civilization	3
ECO 102 or ECO 101 or PSC 102	Principles of Microeconomics or Principles of Macroeconomics or US Government I: National and State	3	ECON 1100 or ECON 1200 or POL SCI 1200	Principles of Microeconomics or Principles of Macroeconomics or American Government	3
PSY 101	General Psychology	3	PSYCH 1101	General Psychology	3
		Total Hours	12		
				Total Hours	12

#### Humanities

Take all courses.

ART 101 or MUS 101 or THE 101	Art Appreciation or Music Appreciation or Theatre Appreciation	3	ART 1180 or MUSIC 1150 or THEATRE 1190	Art Appreciation or Music Appreciation or Theatre via Video	3
PHL 101	Introduction to Philosophy	3	PHILOS 1105	Self and World: Intro to Philosophy	3
ENG 221 or ENG 222	Survey American Literature: Beginnings-1865 or Survey American Literature:1865-Present	3	ENGLISH 1221 or ENGLISH 1222	American Literature: 1600 to 1865 or American Literature 1865 to Present	3
		Total Hours	9		
				Total Hours	9

#### Mathematics and Sciences

Take all courses.

MTH 190	Analytic Geometry & Calculus I	5	MATH 1214	Calculus I	4
MTH 210	Analytic Geometry & Calculus II	5	MATH 1215	Calculus II	4
CHM 111	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 112	General Chemistry II and Lab	5	CHEM 1320, 1510	General Chemistry II and Qualitative Analysis	5
BIO 111 or BIO 121	General Biology and Lab* (5) or Principles of Biology I and Lab * (5)	3	BIO SCI 1113, 1219* or BIO SCI 1213,* 1219*	General Biology and Lab*or Principles of Biology* and Lab*	3
		Total Hours	23		
				Total Hours	21

#### Additional Degree Requirements

Select additional courses to total up to the maximum transfer credit hours shown below.

PHY 102 or GEO 101	Intro to Astronomy or Intro to Physical Geology	3	PHYSICS 1505 or GEOLOGY 1110	Introductory Astronomy or Physical and Environmental Geology	3
PHY 111, 112 or PHY 211, 212	College Physics I and Lab (5) or General Physics I and Lab (5)	5	PHYSICS 1145 or PHYSICS 1135	College Physics I or Engineering Physics I	4
BIO 110	Ecology	3	BIO SCI 2263	Ecology	3
CHM 111	General Chemistry I and Lab	5	CHEM 2210, 2219	Organic Chemistry I and Lab	4
CHM 112	General Chemistry II and Lab	5	CHEM 2220, 2229*	Organic Chemistry II and Lab*	4
				The lab is not a degree requirement, transfers as general elective credit.	

#### Teacher Certification Requirements

Take all courses.

EDU 201 or EDU 214	Foundations of Education or Multicultural Education	3	EDUC 1074	Education in a Diverse Society	3
EDU 190 or EDU 212	CDA Capstone-Childcare Practicum or Teaching Professional/Field Experience	3	EDUC 1104	Teacher Field Experience I	1
EDU 241	Educational Psychology	3	EDUC 2102 or PSYCH 2300	Educational Psychology	3
PSY 250	Human Development	3	PSYCH 3310	Developmental Psychology	3
EDU 244	Education of the Exceptional Learner	3	EDUC 2310 or PSYCH 4310	Education of the Exceptional Child or Psychology of the Exceptional Child	3
		Total Hours	15		
				Total Hours	13

**Professional Requirements for Teacher Education Program:** Please view all program requirements at <https://teachereducation.mst.edu/secondaryeducation/>.

#### Maximum credit hours to be transferred to Missouri S&T degree requirements.

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Missouri S&T residency requirements: The last 60 hours of any Missouri S&T degree must be completed at Missouri S&T.  
Students must receive special permission from Missouri S&T to apply more than the maximum credit hours listed above toward the Missouri S&T degree.  
Students are not required to complete all courses on this guide before transferring to Missouri S&T.