

East Central College — Missouri S&T

Physics BS 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
COM 110	Public Speaking	3	SPMS 1185	Principles of Speech	3
Total Hours		9	Total Hours		9

Mathematics and Science

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	
MTH 220	Analytical Geometry & Calculus III	5	MATH 2222	Calculus III	4	
PHY 211, 212	General Physics I and Lab	5	PHYSICS 1135	Engineering Physics I	4	
PHY 221, 222	General Physics II and Lab	5	PHYSICS 2135	Engineering Physics 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 (3) and Qualitative Analysis (2) *CHEM 1510 is not an S&T degree requirement. Will transfer as general credit.	3	
Total Hours			35	Total Hours		28

Social Sciences

Take all courses.

HST 101 or	US History to 1865 or		HISTORY 1300 or	American History to 1877 or	
HST 102 or	US History 1865-1945 or	3	HISTORY 1310 or	American History Since 1877 or	3
CIV 202	European Civilization II		HISTORY 1200	Modern Western Civilization	
PSC 102	US Government I: National and State	3	POL SCI 1200	American Government	3
PSY 101	General Psychology	3	PSYCH 1101	General Psychology	3
Total Hours		9	Total Hours		9

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
ENG 210 or ENG 221 or ENG 124 or ENG 214 or ENG 215	Survey British Lit: Beginnings to 1784 or Survey American Lit: Colonial to 1865 or World Literature I or Women's Literature or African-American Literature or other literature	3	ENGLISH 1211 or ENGLISH 1221 or ENGLISH 1231 or ENGLISH 2242 or ENGLISH 2245 or	British Literature I: The Beginnings to 1800 or American Literature: 1600 to 1865 or World Literature I or Literature by Women or African American Literature or other literature	3
Total Hours		6	Total Hours		6

Additional Degree Requirements

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

MTH 245	Differential Equations	3	MATH 3304	Elementary Differential Equations	3
MTH 241	Linear Algebra	3	MATH 3108	Linear Algebra <small>Applies to degree as math/stat elective.</small>	3
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* <small>*BIO SCI 1213 will be substituted for 1113. The lab is not a degree requirement, will transfer as general elective credit.</small>	3
PHY 102 or GEO 101	Intro to Astronomy or Intro to Physical Geology Lec	3	PHYSICS 1505 or GEOLOGY 1110	Introductory Astronomy or Physical and Environmental Geology <small>Will be substituted for PHYSICS 1605.</small>	3

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	2
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		12

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.
must receive special permission from Missouri S&T to apply more than the maximum credit hours listed above toward the Missouri S&T degree.
required to complete all courses on this guide before transferring to Missouri S&T.

Students
Students are not