

East Central College — Missouri S&T

Physics BS Transfer Guide

Effective as of Fall 2020

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	English Composition II	3	ENGLISH 1160	Writing and Research	3
COM 110	Public Speaking (if required for AA Degree)	3	SPMS 1185	Principles of Speech (Not required for S&T degree. Transfers as free elective)	3
Total Hours					9
Total Hours					9

Mathematics and Science (Take all courses)

MTH 190	Analytic Geometry & Calculus I	5	MATH 1214	Calculus for Engineers I	4
MTH 210	Analytic Geometry & Calculus II	5	MATH 1215	Calculus for Engineers II	4
MTH 220	Analytical Geometry & Calculus III	5	MATH 2222	Calculus with Analytic Geometry III	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	General Chemistry II	3
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
Total Hours					35
Total Hours					28

Social Sciences (Select 9 hours)

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 elective)	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 elective)	3
<i>See your advisor for course options</i>				Social Sciences Elective: Any economics, history, political science, sociology, psychology elective	6
Total Hours					9
Total Hours					9

Humanities (Select 6 credit hours to include one literature and one additional humanities)

ENG 210 or ENG 221 or EMG 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 elective)	3
PHL 111	Intro to Logic	3	PHILOS 1115	Intro to Logic	3
PHL 101	Introduction to Philosophy	3	PHILOS 1105	Introduction to Philosophy	3
<i>See your advisor for course options</i>				Other fine art, literature, or philosophy elective	6
Total Hours					6
Total Hours					6

Additional Degree Requirements (Select up to 12 hours)

MTH 245	Differential Equations	3	MATH 3304	Elementary Differential Equations	3
MTH 241	Linear Algebra	3	MATH 3108	Linear Algebra	3
EGR 251 or EGR 221,222	Data Structures or C++ Program Engineers and Lab	3-4	CS 1500 or CS 1971,1981	Computational Problem Solving or Intro to Programming Methodology and Lab (C++)	3
BIO 111	General Biology I and Lab (if required for AA degree)	5	BIO SCI 1113	General Biology (Transfers as free elective)	3
Total Hours					12
Total Hours					12

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.