

East Central College — Missouri S&T

Physics BS

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

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	
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 a degree requirement, transfers as general elective credit.	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

Humanities, Arts, and Social Sciences General Education Requirements

From the options listed in each group below, select 15 hours to include
6 hours Humanities and Fine Arts from at least two specific disciplines and
6 hours Behavioral and Social Sciences from at least two specific disciplines.

*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.

Humanities and Fine Arts

Select 6 hours from at least two specific disciplines and at least one literature course.

ENG 210 or ENG 211 or ENG 221 or ENG 222 or ENG 124	Survey British Lit: Beginnings - 1784 or Survey British Lit: Romantic-Present or Survey American Lit: Beginnings - 1865 or Survey American Lit: 1865-Present or World Literature I	3	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I	3
HST 101 or HST 102 or ART 101 or MUS 101 or THE 101	US History to 1877 or US History Since 1877 or Art Appreciation or Music Appreciation or Theatre Appreciation *Satisfies the State of Missouri government requirement.	3	HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	American History to 1877 or American History Since 1877 or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change *Satisfies the State of Missouri government requirement.	3

Behavioral and Social Sciences

Select 6 hours from at least two specific disciplines.

CIV 201 or CIV 202* or GRY 101 or PHL 101 or PHL 111 or PSC 102* or PSY 101 or ECO 102 or ECO 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography or Intro to Philosophy or Intro to Logic or US Government I: National and State* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6
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Humanities, Arts, and Social Sciences

Select 3 hours.

HASS Elective		Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective		Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
		Total Hours	15			Total Hours	15

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 Recommended but not required; satisfies a math/stat elective requirement.	3
EGR 251 or EGR 221,222	Data Structures or C++ Program Engineers and Lab	3	CS 1500	Computational Problem Solving	3
Electives	Maximum Free Electives	6	Electives	Maximum Free Electives	6

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

60

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.