

Metropolitan Community Colleges — Missouri S&T

Applied Mathematics BS
Transfer Guide Effective as of Fall 2025

Students are not required to complete all courses on this guide before transferring to Missouri S&T.

Metropolitan Community Colleges

Missouri S&T

English and Communication Skills

Take all courses.

ENGL 101	Composition and Reading I	3	ENGLISH 1120	Exposition and Argumentation	3
ENGL 102 or ENGL 215 or COMM 100	Composition and Reading II or Technical Writing or Fundamentals of Speech	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech	3
Total Hours 6			Total Hours 6		

Mathematics, Statistics, and Computer Science

Take all courses.

MATH 180	Analytic Geometry & Calculus I	5	MATH 1214	Calculus I	4
MATH 190	Analytic Geometry & Calculus II	5	MATH 1215	Calculus II	4
MATH 210	Analytic Geometry & Calculus III	4	MATH 2222	Calculus III	4
MATH 230	Differential Equations	3	MATH 3304	Elementary Differential Equations	3
ENGR 215	Engineering Statistics and Computation	3	STAT 3115	Engineering Statistics	3
CSIS 271	Data Structures	3	CS 1500	Computational Problem Solving	3
Total Hours 23			Total Hours 21		

Natural Sciences

Select PHYSICS 1135 and 1 additional course from the options below. A total of 7 hours will apply to this requirement.

PHYS 220	Engineering Physics I required	5	PHYSICS 1135	Engineering Physics I required	4
PHYS 221	Engineering Physics II	5	PHYSICS 2135	Engineering Physics II	4
CHEM 111	General College Chemistry I	5	CHEM 1301	Introductory Chemistry	3
CHEM 112	General College Chemistry II	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
BIOL 101 or BIOL 123	General Biology (5) or General Biology for Majors I (4)	4-5	BIO SCI 1113, 1219 or BIO SCI 1213, 1219	General Biology and Lab or Principles of Biology and Lab	4
BIOL 204	Genetics	3	BIO SCI 2223	Genetics	3
GEOL 101	Physical Geology	5	GEOLOGY 1110	Physical and Environmental Geology or higher geology	3
Total Hours 13			Total Hours 7		

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.

ENGL 220 or ENGL 221 or ENGL 222 or ENGL 223 or ENGL 254 or HIST 120* or HIST 121* or ART 108 or MUSI 108 or SPDR 106	British Literature to 1750 or British Literature 1750-Present or American Literature to 1860 or American Literature 1860-Present or World Literature I or United States History to 1865* or United States History since 1865* or Survey of Art or Music Appreciation or Theatre Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	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: Beginnings to the Renaissance or 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.	6
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Behavioral and Social Sciences

6 hours to include ECON 1100 or 1200 and from at least two specific disciplines.

ECON 211 or ECON 210	Microeconomics or Macroeconomics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3
HIST 133 or HIST 134* or GEOG 105 or PHIL 100 or PHIL 103 or PHIL 200 or POLS 136* or PSYC 140 or Foreign Language	Foundations of Western Civilization or Modern Western Civilization* or World Geography or Intro to Philosophy or Intro to Critical Thinking or Logic or Intro to US National Politics* or General Psychology or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 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 Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3

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
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Additional Degree Requirements

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

Technical Electives	Technical electives in biology, business, chemistry, computer science, economics, education, engineering, finance, geology, geophysics, information science and technology, marketing, mechanics, physics, or technical communication approved by advisor.		Technical Electives	Technical electives in biology, business, chemistry, computer science, economics, education, engineering, finance, geology, geophysics, information science and technology, marketing, mechanics, physics, or technical communication approved by advisor.	
Electives	Free Electives		Electives	Free Electives	

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.