

State Fair Community College — 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.

State Fair Community College

Missouri S&T

English and Communication Skills

Take all courses.

ENGL 101	English Composition I	3	ENGLISH 1120	Exposition and Argumentation	3
ENGL 102 or COM 101	English Composition II or Public Speaking	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
Total Hours 6			Total Hours 6		

Mathematics, Statistics, and Computer Science

Take all courses.

MATH 130	Calculus and Analytic Geometry I	5	MATH 1214	Calculus I	4
MATH 131	Calculus and Analytic Geometry II	5	MATH 1215	Calculus II	4
MATH 132	Calculus and Analytic Geometry III	5	MATH 2222	Calculus III	4
MATH 134	Differential Equations	3	MATH 3304	Elementary Differential Equations	3
CIS 120 or CIS 155	Programming in Python or Programming in C#	3	COMP SCI 1500	Computational Problem Solving	3
Total Hours 21			Total Hours 18		

Natural Sciences

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

PHYS 211	Engineering Physics I with Lab	5	PHYSICS 1135	Engineering Physics I required	4
PHYS 212	Engineering Physics II with Lab	5	PHYSICS 2135	Engineering Physics II	4
CHEM 123	General Chemistry I with Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHEM 124	General Chemistry II with 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
BIO 112 or BIO 125	Principles of Biology with Lab or General Biology	4	BIO SCI 1113, 1219 or BIO SCI 1213, 1219	General Biology and Lab or Principles of Biology and Lab	4
BIO 210	Principles of Genetics with Lab	4	BIO SCI 2223	Genetics	3
EASC 106 or EASC 118	Intro to Geology with Lab (4) MOTR GEOL 100L OR Environmental Geology (3) MOTR GEOL 100	3	GEOLOGY 1110	Physical and Environmental Geology MOTR GEOL 100 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.

LIT 109 or LIT 107 or LIT 112 or HIST 101* or HIST 102* or ART 101 or MUS 101 or THEA 107	British Literature or American Literature or World Literature or US History Before 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Intro to Theatre *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1221 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 American Literature: 1600 to 1865 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 102 or ECON 101	Principles of Microeconomics or Principles of Macroeconomics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3
HIST 108 or HIST 109* or GEOG 101 or PHL 101 or POLS 101* or PSY 101 or Foreign Language	World Civilization Before 1500 or World Civilization After 1500* or World Regional Geography or Intro to Philosophy or American/National Government* 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 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 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.
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