

# State Fair Community College — Missouri S&T

## Applied Mathematics BS

Transfer Guide Effective as of Fall 2024

### 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 ENGL 110	English Composition II or Communication for Business and Industry	3	ENGLISH 1160 or ENGLISH 1600	Writing and Research or Intro to Technical Communications	3
SPMS 1185	Principles of Speech	3	SPMS 1185	Principles of Speech	3
Total Hours			Total Hours		
9			9		

#### Humanities

Select 9 hours to include at least one literature.

LIT 109 or LIT 107 or LIT 112	British Literature or American Literature or World Literature or other literature	3	ENGLISH 1211 or ENGLISH 1221 or ENGLISH 1231	British Literature I: The Beginnings to 1800 or American Literature: 1600 to 1865 or World Literature I or other literature <small>At least one literature course is required.</small>	3
PSY 101	General Psychology	3	PSYCH 1101	General Psychology	3
PHIL 101	Introduction to Philosophy	3	PHILOS 1105	Self and World: Intro to Philosophy	3
ART 101	Art Appreciation	3	ART 118	Art Appreciation	3
MUS 101	Music Appreciation	3	MUS 1150	Music Understanding and Appreciation	3
THEA 107	Intro to Theatre	3	THEATRE 1190	Theatre via Video	3
Foreign Language	Any foreign language	3	Foreign Language	Any foreign language	3
Humanities	Any fine art, English, music, theatre, philosophy or speech.	3	Humanities	Any fine art, English, music, theatre, philosophy or speech.	3
Social Science	Any history, political science, or psychology.	3	Social Science	Any history, political science, or psychology.	3
Total Hours			Total Hours		
9			9		

#### Social Sciences

Take all courses.

HIST 109 or HIST 101 or HIST 102 or POLS 101	World Civilization After 1500 or US History Before 1877 or US History Since 1877 or American/National Government <small>At least one of these courses is required to satisfy state requirement.</small>	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History Since 1877 or American Government <small>At least one of these courses is required to satisfy state requirement.</small>	3
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* <small>*Students pursuing the Actuarial Science emphasis take BOTH ECON 1100 and 1200 (6 hours econ for a total of 9 hours social sciences).</small>	3
Total Hours			Total Hours		
6			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	CS 1500	Computational Problem Solving	3
Total Hours			Total Hours		
21			18		

#### Science

Select PHYSICS 1135 and 2 additional courses from the options below. A total of 13 hours will apply to this requirement.

PHYS 211	Engineering Physics I with Lab	5	PHYSICS 1135	Engineering Physics I <small>required</small>	4
PHYS 212	Engineering Physics II with Lab	5	PHYSICS 2135	Engineering Physics II	4
CHEM 123	General Chemistry I with Lab	5	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) <small>*CHEM 1510 is not an S&amp;T degree requirement. Will transfer as general credit.</small>	3
BIO 112 or BIO 125	Intro to Biology with Lab or Biology I with Lab	5	BIO SCI 1113, 1219	General Biology and Lab	4
Total Hours			Total Hours		
13			13		

#### Additional Degree Requirements

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

Technical Electives	Technical electives in biology, chemistry, computer science, economics, engineering, geology, mechanics, or physics approved by advisor.	3	Technical Electives	Technical electives in biology, chemistry, computer science, economics, engineering, geology, mechanics, or physics approved by advisor.	3
Electives	Maximum Free Electives	14	Electives	Maximum Free Electives	14

**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.