

Ozarks Technical 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.

Ozarks Technical Community College

Missouri S&T

English and Communication Skills

Take all courses.

ENG 101	Composition I	3	ENGLISH 1120	Exposition and Argumentation	3
ENG 102 or	Composition II or	3	ENGLISH 1160 or	Writing and Research or	3
ENG 150 or	Technical Writing or		ENGLISH 3560 or	Technical Writing or	
COM 105	Public Speaking		SPMS 1185	Principles of Speech	
		Total Hours	6		
			Total Hours	6	

Mathematics, Statistics, and Computer Science

Take all courses.

MTH 140	Analytical Geometry/Calculus I	5	MATH 1214	Calculus I	4	
MTH 141	Analytical Geometry/Calculus II	5	MATH 1215	Calculus II	4	
MTH 240	Analytical Geometry/Calculus III	5	MATH 2222	Calculus III	4	
MTH 241	Differential Equations	3	MATH 3304	Elementary Differential Equations	3	
MTH 230	Linear Algebra	3	MATH 3108	Linear Algebra	3	
CSC 160 or CSC 210	Python Programming I (3) or Data Structures (4)	3	CS 1500	Computational Problem Solving	3	
Total Hours			24	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.

PHY 220	Physics for Engineers and Scientists I	5	PHYSICS 1135	Engineering Physics I <i>required</i>	4
PHY 222	Physics for Engineers and Scientists II	5	PHYSICS 2135	Engineering Physics II	4
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 170	General Chemistry II	4	CHEM 1320	General Chemistry II	3
BIO 100 or BIO 160	Life Science or General Biology I	4	BIO SCI 1113, 1219	General Biology and Labb	4
BIO 250	Genetics	4	BIO SCI 2223	Genetics	3
PHY 110	Intro to Geology	5	GEOLOGY 1110	Physical and Environmental Geology <i>or higher geology</i>	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.

ENG 240 or ENG 241 or ENG 270 or ENG 271 or ENG 260 or HST 120* or HST 130* or ART 100 or MUS 105 or THR 101	Survey of English Literature I or Survey of English Literature II or Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or US History I: to 1865* or US History II: 1865-Present* or Art and Experience or Western Music Appreciation or Intro to Theater <small>*Satisfies the State of Missouri government requirement.</small>	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 <small>*Satisfies the State of Missouri government requirement.</small>	6
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Behavioral and Social Sciences

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

ECO 275 or ECO 270	Principles of Microeconomics or Principles of Macroeconomics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3
HST 105 or HST 106* or GRY 101 or PHL 101 or PLS 101 or PSY 110 or Foreign Language	Ancient and Medieval World History or Modern World History* or World Geography or Intro to Philosophy or American Government and Politics or Intro to Psychology or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	3	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or POL SCI 1200* or PSYCH 1101 or Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	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 <small>*Satisfies the State of Missouri government requirement.</small>	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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