

# Ozarks Technical Community College — Missouri S&T

## Applied Mathematics BS

Transfer Guide Effective as of Fall 2024

### 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	Technical Writing	3	ENGLISH 3560	Technical Writing	3
COM 105	Public Speaking	3	SPMS 1185	Principles of Speech	3
<b>Total Hours</b>					<b>9</b>
<b>Total Hours</b>					<b>9</b>

#### Humanities

Select 9 hours to include at least one literature.

ENG 240 or	Survey of English Literature I or	3	ENGLISH 1211 or	British Literature I: The Beginnings to 1800 or	3
ENG 270 or	Survey of American Literature I or	3	ENGLISH 1221 or	American Literature: 1600 to 1865 or	3
ENG 260	Survey of World Literature I or other literature	3	ENGLISH 1231	World Literature I or other literature	3
			<small>At least one literature course is required.</small>		
PSY 110	Intro to Psychology	3	PSYCH 1101	General Psychology	3
			<small>or other philosophy</small>		
PHL 101	Introduction to Philosophy	3	PHILOS 1105	Self and World: Intro to Philosophy	3
			<small>or other philosophy</small>		
ART 100	Art and Experience	3	ART 118	Art Appreciation	3
MUS 105	Western Music Appreciation	3	MUS 1150	Music Understanding and Appreciation	3
THR 101	Intro to Theater	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
<b>Total Hours</b>					<b>9</b>
<b>Total Hours</b>					<b>9</b>

#### Social Sciences

Take all courses.

HST 106 or	Modern World History or	3	HISTORY 1200 or	Modern Western Civilization or	3
HST 120 or	US History I: to 1865 or	3	HISTORY 1300 or	American History to 1877 or	3
HST 130 or	US History II: 1865-Present or	3	HISTORY 1310 or	American History Since 1877 or	3
PLS 101	American Government and Politics	3	POL SCI 1200	American Government	3
			<small>At least one of these courses is required to satisfy state requirement.</small>		
ECO 275 or	Principles of Microeconomics or	3	ECON 1100* or	Principles of Microeconomics* or	3
ECO 270	Principles of Macroeconomics	3	ECON 1200*	Principles of Macroeconomics*	3
			<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>		
<b>Total Hours</b>					<b>6</b>
<b>Total Hours</b>					<b>6</b>

#### 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	Python Programming I (3) or	3	CS 1500	Computational Problem Solving	3
CSC 210	Data Structures (4)	3			
<b>Total Hours</b>					<b>24</b>
<b>Total Hours</b>					<b>21</b>

#### Science

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

PHY 220	Physics for Engineers and Scientists I	5	PHYSICS 1135	Engineering Physics I <small>required</small>	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	Life Science or	4	BIO SCI 1113, 1219 or	General Biology and Lab or	4
BIO 160	General Biology I	4	BIO SCI 1213, 1219	Principles of Biology and Lab	4
<b>Total Hours</b>					<b>13</b>
<b>Total Hours</b>					<b>13</b>

#### 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.