

# Ozarks Technical College — Missouri S&T

## Applied Math BS with Secondary Education Teacher Certification Transfer Guide

Effective as of Fall 2020

### Ozarks Technical College

### Missouri S&T

#### Communication Skills (Take all courses)

ENG 101	Composition I	3	ENGLISH 1120	Exposition and Argumentation	3
ENG 102	Composition II	3	ENGLISH 1160	Writing and Research	3
COM 105	Public Speaking	3	SPMS 1185	Principles of Speech	3
Total Hours			Total Hours		
9			9		

#### Mathematics and Science (Take all courses)

MTH 130	College Algebra	3	MATH 1140*	College Algebra*	3
				<small>*Required for teacher certification; not a Mathematics BS requirement.</small>	
MTH 131	Trigonometry	3	MATH 1160*	Trigonometry*	2
				<small>*Required for teacher certification; not a Mathematics BS requirement.</small>	
MTH 140	Analytical Geometry/Calculus I	5	MATH 1214	Calculus for Engineers I	4
MTH 141	Analytical Geometry/Calculus II	5	MATH 1215	Calculus for Engineers II	4
MTH 240	Analytical Geometry/Calculus III	5	MATH 2222	Calculus with Analytic Geometry III	4
PHY 220	Physics for Engineers and Scientists I	5	PHYSICS 1135	Engineering Physics I	4
PHY 222	Physics for Engineers and Scientists II	5	PHYSICS 2135	Engineering Physics II	4
Total Hours			Total Hours		
31			25		

#### Social Sciences (Take all courses)

HST 106 or HST 120 or HST 130	World History II or US History I: to 1865 or US History II: 1865-Present or	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310	Modern Western Civilization or American History to 1877 or American History Since 1877	3
PLS 101	American Government and Politics	3	POL SCI 1200	American Government	3
PSY 110	Intro to Psychology	3	PSYCH 1101	General Psychology	3
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
Total Hours			Total Hours		
12			12		

#### Humanities (Take all courses)

ART 100 or MUS 105 or THR 101 or PHL 101	Art and Experience or Western Music Appreciation or Intro to Theater or Intro to Philosophy	3	ART 1180 or MUSIC 1150 or THEATRE 1190 or PHILOS 1105	Art Appreciation or Music Appreciation or Theatre Appreciation or Intro to Philosophy	3
ENG 340 or ENG 350 or ENG 260	Survey of English Literature I or Survey of American Literature I or Survey of World Literature I (or other literature elective)	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 elective)	3
Total Hours			Total Hours		
6			6		

#### Additional Degree Requirements (Select up to 10 hours)

MTH 241	Differential Equations	3	MATH 3304	Elementary Differential Equations	3
MHT 230	Linear Algebra	3	MATH 3108	Linear Algebra	3
CHM 160, 161 or BIO 160	General Chemistry or General Biology	4-5	CHEM 1310, 1319 or BIO SCI 1113, 1219	General Chemistry I and Lab or General Biology and Lab	5
CSC 210 or CSC 140	Data Structures or C++ Programming (4)	4	CS 1500 or CS 1971, 1981	Computational Problem Solving or Intro to Programming Method (C++) and Lab	3
Total Hours			Total Hours		
14			10		

#### Additional Courses for Teacher Certification Option (Take all courses)

EDU 220	Foundations of Education	3	EDUC 1040	Perspectives in Education	2
EDU 250	Educational Psychology	3	PSYCH 2300 (EDUC 2102)	Educational Psychology	3
PSY 130	Life Span Developmental Psychology	3	PSYCH 3310	Developmental Psychology	3
EDU 260	Education Exceptional Learner	3	PSYCH 4310	Psychology of the Exceptional Child	3
Total Hours			Total Hours		
12			11		

**\*Teacher certification notes:** An ACT of 22 or a 220 on the MoGEA is required for professional standing in the department. Students must pass the MoCA, maintain a 2.75 cumulative GPA, and a 3.0 content GPA to qualify for student teaching. Students completing this program will earn a BS in Applied Mathematics.

#### Maximum credit hours to be transferred to Missouri S&T degree requirements.

**68**

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.