

Ozarks Technical College — Missouri S&T

Applied Math BS with Secondary Education Teacher Certification Transfer Guide

Effective as of Fall 2023

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 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 |
| 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 via Video or Intro to Philosophy | 3 |
| ENG 240 or ENG 270 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 additional courses to total up to the maximum transfer credit hours shown below.

| | | | | | |
|--------------------------------------|-------------------------------------------------------------------------------|-----|------------------------------------------|------------------------------------------------------------------------------|---|
| 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 160 or CSC 210 or CSC 140* | Python Programming I (3) or Data Structures (4) or C++ Programming* (4) | 3 | CS 1500 or CS 1971,1981 | Computational Problem Solving or Intro to Programming Methodology and Lab | 3 |

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 | | |

Professional Requirements for Teacher Education Program: Please view all program requirements at <https://teachereducation.mst.edu/secondaryeducation/>.

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.