

Mineral Area College — Missouri S&T

Physics BS with Secondary Education Teacher Certification Transfer Guide

Effective as of Fall 2020

Mineral Area College

Missouri S&T

Communication Skills (Take all courses)

ENG 1330	English Composition I	3	ENGLISH 1120	Exposition and Argumentation	3
ENG 1340	English Composition	3	ENGLISH 1160	Writing and Research	3
ENG 1440	Public Speaking	3	SPMS 1185	Principles of Speech	3
Total Hours			Total Hours		
9			9		

Mathematics and Science (Take all courses)

MAT 1650	Analytical Geometry and Calculus I	5	MATH 1214	Calculus for Engineers I	4
MAT 2150	Analytical Geometry and Calculus II	5	MATH 1215	Calculus for Engineers II	4
MAT 2250	Analytical Geometry and Calculus III	5	MATH 2222	Calculus with Analytic Geometry III	4
PHS 2230	General Physics I	4	PHYSICS 1135	Engineering Physics I	4
PHS 2240	General Physics II	4	PHYSICS 2135	Engineering Physics II	4
PHS 1350	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5
PHS 1390	General Chemistry II	4	CHEM 1320	General Chemistry II	3
Total Hours			Total Hours		
32			28		

Social Sciences (Take all courses)

HIS 1230 or HIS 1240 or HIS 1140	American History I or American History II or Western Civilization II	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200	American History to 1877 or American History Since 1877 or Modern Western Civilization	3
POS 1180	American Political Systems	3	POL SCI 1200	American Government	3
PSY 1130	General Psychology I	3	PSYCH 1101	General Psychology	3
Total Hours			Total Hours		
9			9		

Humanities (Take all courses)

ART 1490 or MUS 1630 or THE 1000	History of Art I or Appreciation of Music or Intro to Theatre	3	ART 1180 or MUSIC 1150 or THEATRE 1190	Art Appreciation or Music Appreciation or Theatre Appreciation	3
ENG 2330 or ENG 2430 or ENG 2492	English Literature I or American Literature I or Women's Literature (or other literature elective)	3	ENGLISH 1211 or ENGLISH 1221 or ENGLISH 2242	British Literature I: The Beginnings to 1800 or American Literature: 1600 to 1865 or Literature by Women (or other literature elective)	3
Total Hours			Total Hours		
6			6		

Additional Degree Requirements (Select up to 10 credit hours)

MAT 2330	Differential Equations	3	MATH 3304	Elementary Differential Equations	3
BIO 1150	General Biology	5	BIO SCI 1113	General Biology	3
PHS 1200 or PHS 2410	Intro to Astronomy (3) or Physical Geology (5)	3-5	PHYSICS 1505 or GEOLOGY 1110	Introductory Astronomy or Physical and Environmental Geology	3
Total Hours			Total Hours		
11			9		

Additional Courses for Teacher Certification Option (Take all courses)

EDU 2040	Foundations of Education	3	EDUC 1040	Perspectives in Education	2
EDU 2320	Educational Psychology	3	PSYCH 2300 (EDUC 2102)	Educational Psychology	3
PSY 1250	Human Growth and Development	3	PSYCH 3310	Developmental Psychology	3
EDU 2500	Education of 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 Physics.

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

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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.