

# Johnson County Community College — Missouri S&T

## Physics BS

Transfer Guide Effective as of Fall 2024

### Johnson County Community College

### Missouri S&T

#### Communication Skills

Take all courses.

ENGL 121	Composition I	3	ENGLISH 1120	Exposition and Argumentation	3
ENGL 122	Composition II	3	ENGLISH 1160	Writing and Research	3
Total Hours		6	Total Hours		6

#### Mathematics and Science

Take all courses.

MATH 241 and MATH 242	Calculus I and Calculus II	10	MATH 1214 and MATH 1215	Calculus I and Calculus II	8
MATH 243	Calculus III	5	MATH 2222	Calculus III	4
CHEM 124, 125	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CHEM 131	General Chemistry II	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not an S&amp;T degree requirement. Will transfer as general credit.</small>	3
PHYS 220	Engineering Physics I	5	PHYSICS 1135	Engineering Physics I	4
PHYS 221	Engineering Physics II	5	PHYSICS 2135	Engineering Physics II	4
Total Hours		34	Total Hours		28

#### Social Sciences

Select 9 hours to include at least one course to satisfy the state requirement.

HIST 126 or HIST 140 or HIST 141 or POLS 124	Western Civ: Scientific Revolution to Modern Age or US History to 1877 or US History since 1877 or American National Government <small>At least one of these courses is required to satisfy state requirement.</small>	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History Since 1877 or American Government <small>At least one of these courses is required to satisfy state requirement.</small>	3
ECON 231 or ECON 230	Principles of Microeconomics or Principles of Macroeconomics or other economics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics or other economics	3
PSYC 130	Intro to Psychology or other psychology	3	PSYCH 1101	General Psychology or other psychology	3
Social Science	Any economics, history, political science, sociology, or psychology.	3	Social Science	Any economics, history, political science, sociology, or psychology.	3
Total Hours		9	Total Hours		9

#### Humanities

Select 6 credit hours to include at least one literature.

PHIL 121	Intro to Philosophy or other philosophy	3	PHILOS 1105	Self and World: Intro to Philosophy or other philosophy	3
MUS 121 or MUS 126	Intro to Music Listening or Intro to World Music or other music	3	MUS 1150	Music Understanding and Appreciation or other music	3
THEA 120	Intro to Theatre	3	THEATRE 1190	Theatre via Video or other theater	3
ENGL 236 or ENGL 246 or ENGL 251 or ENGL 217	British Literature to 1800 or American Literature I or World Literature to 1620 or Literature by Women or other literature	3	ENGLISH 1211 or ENGLISH 1221 or ENGLISH 1231 or ENGLISH 2242	British Literature I: The Beginnings to 1800 or American Literature: 1600 to 1865 or World Literature I or Literature by Women or other literature	3
Humanities	Other fine art, literature, or philosophy.	3	Humanities	Other fine art, literature, or philosophy.	3
Total Hours		6	Total Hours		6

#### Additional Degree Requirements

Select additional courses to total up to the maximum transfer credit hours shown below.

MATH 254	Differential Equations	4	MATH 3304	Elementary Differential Equations	3
MATH 246	Elementary Linear Algebra	3	MATH 3108	Linear Algebra <small>Recommended but not required; satisfies a math/stat elective requirement.</small>	3
CS 235 or CS 250	Object-Oriented Programming Using C++ or Basic Data Structures using C++	4	CS 1500	Computational Problem Solving	3
Electives	Maximum Free Electives	6	Electives	Maximum Free Electives	6

#### 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.