

Johnson County Community College — Missouri S&T

Education BS

Transfer Guide Effective as of Fall 2026

Complete Group 1 - Core Requirements and Group 2 - Major Requirements for major of choice.

Students are not required to complete all courses on this guide before transferring to Missouri S&T.

Group 1 - Core Requirements: All Emphasis/Focus Areas Take All Courses

Education students take all Group 1 - Core Requirements and Group 2 - Emphasis Area Requirements for major of choice.

Johnson County Community College			Semester	Missouri S&T		
ENGL 121 or ENGL 119	Composition I (3) or College Composition I with Review (5)	3		ENGLISH 1120	Exposition and Argumentation	3
ENGL 122 or COMS 121	Composition II or Public Speaking	3		ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
PHIL 121 or PHIL 124	Intro to Philosophy or Logic and Critical Thinking	3		PHILOS 1105 or PHILOS 1115	Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction	3
POLS 124 or HIST 126	American National Government or Western Civ: Scientific Revolution to Modern Age	3		POL SCI 1200 or HISTORY 1200	American Government or Modern Western Civilization	3
EDUC 121	Introduction to Teaching	3		EDUC 1074	Education in a Diverse Society	3
PSYC 225	Educational Psychology	3		EDUC 2102 or PSYCH 2300	Educational Psychology	3
PSYC 215	Child Development	3		PSYCH 3310	Developmental Psychology	3
		Total Hours	21			Total Hours
						21

Group 2 - Emphasis/Focus Area Requirements: Take All Courses for Emphasis/Focus of Choice

Middle School Teacher Education students take all Group 1 - Core Requirements (above) and Group 2 - Emphasis Area Requirements for chosen emphasis area from list below. See course requirements on following pages.

Early Childhood
Elementary Education STEM Focus
Middle School English Emphasis
Middle School Mathematics Emphasis
Middle School Science Emphasis
Middle School Social Sciences Emphasis
Secondary Teaching Art Emphasis
Secondary Teaching Computer Science Emphasis
Secondary Teaching General Science Emphasis
Secondary Teaching Spanish Emphasis

Emphasis Area Requirements are detailed on the following pages.

Early Childhood

Johnson County Community College

Semester

Missouri S&T

Degree Requirements

It is recommended that AAT-track students prioritize coursework in this section and the Group 1 - Core Requirements section before completing any courses from the Additional Degree Requirements section. Students should consult closely with their community college/transfer school advisor to select coursework to total no more than the maximum of 61 transferable credits.

BIOL 121* or CHEM 124, 125 or PHYS 130* or PHYS 220* or ASTR 120 or ASTR 122* or GEOS 130	Intro to Biology for Non-Majors* (4) or General Chemistry I and Lab (5) or College Physics I* (5) or Engineering Physics I* (5) or Fundamentals of Astronomy (3) or Astronomy* (4) or General Geology (5) or higher science lecture *Lab satisfies science lab requirement below.	6	Select 6 hours from at least 2 disciplines.	BIO SCI 1113, 1219* or CHEM 1310, 1319* or PHYSICS 1145* or PHYSICS 1135* or PHYSICS 1505 or PHYSICS 1505, 1509* or GEOLOGY 1110	General Biology (3) and Lab* (1) or General Chemistry I (4) and Lab* (1) or College Physics I* (4) or Engineering Physics* (4) or Introductory Astronomy (3) or Introductory Astronomy (3) and Lab* (1) or Physical and Environmental Geology (3) or higher science lecture *Lab satisfies science lab requirement below.	6
Science Lab	One lab course from any physical or biological science if not taken with lecture course above.	1		Science Lab	One lab course from any physical or biological science if not taken with lecture course above.	1
MATH 155 or MATH 171 or MATH 201	Contemporary Math or College Algebra or Statistics or higher math or statistics	3		MATH 1110 or MATH 1140 or STAT 1115	Mathematical Reasoning and Modeling or College Algebra or Statistics for the Social Sciences I or higher math or statistics	3
GEOS 145	World Regional Geography	3		HISTORY 2110	World Regional Geography	3
HIST 140 or HIST 141 or HIST 125 or HIST 151 or HIST 126	U.S. History to 1877 or U.S. History Since 1877 or Western Civ: Ancient World to the Renaissance or World History: Traditional or Western Civ: Scientific Revolution to Modern Age or	3		HISTORY 1300 or HISTORY 1310 or HISTORY 1100* or HISTORY 1200* or	American History to 1877 or American History since 1877 or Early Western Civilization or Modern Western Civilization or *Department will substitute HISTORY 1100 or 1200 for this requirement.	3
ENGL 232	Children's Literature	3		EDUC 3430	Diverse Literature for Children	3
Literature	Literature Elective	3		Literature	Literature Elective	3
PSYC 130	Intro to Psychology	3		PSYCH 1101	General Psychology	3
MUS 121 or MUS 126	Intro to Music Listening or Intro to World Music	3		MUSIC 1150	Music Appreciation	3

Additional Degree Requirements

It is recommended that AAS or Certificate Program students who have completed the coursework below work closely with their community college/transfer school advisor to complete selected courses from the Recommended Transfer Coursework section and the Group 1 - Core Requirements section to total no more than the maximum of 61 transferable credits.

EDUC 130	Foundations of Early Childhood Education	3	EDUC 1055	Intro to Early Childhood Education	3
EDUC 250	Child Health, Safety and Nutrition	3	EDUC 1221	Health, Nutrition, and Safety in Early Childhood Education	3
EDUC 260	Observing and Interacting with Young Children	3	EDUC 2440	Observation and Assessment of Young Children	3
EDUC 234	Families in Society	3	EDUC 2401	School, Family, and Community Partnerships	3
PSYC 215	Child Development	3	EDUC 2211	Child Development	3
	Group 2 Emphasis/Focus Area Requirements	40		Group 2 Emphasis/Focus Area Requirements	40
	Group 1 Core Requirements	21		Group 1 Core Requirements	21
	Total Hours	61		Total Hours*	61

*S&T advisor permission is required to transfer more than 61 credits toward the S&T degree for Early Childhood Emphasis Area.

Professional Requirements for Teacher Education Program:

Please view all program requirements at <https://teachereducation.mst.edu/secondaryeducation/>.

Elementary Education Focus

<u>Johnson County Community College</u>		<u>Semester</u>	<u>Missouri S&T</u>	
BIOL 121* or CHEM 124, 125 or PHYS 130* or PHYS 220* or ASTR 120 or ASTR 122* or GEOS 130	Intro to Biology for Non-Majors* (4) or General Chemistry I and Lab (5) or College Physics I* (5) or Engineering Physics I* (5) or Fundamentals of Astronomy (3) or Astronomy* (4) or General Geology (5) or higher science lecture *Lab satisfies science lab requirement below.	Select 6 hours from at least 2 disciplines.	BIO SCI 1113, 1219* or CHEM 1310, 1319* or PHYSICS 1145* or PHYSICS 1135* or PHYSICS 1505 or PHYSICS 1505, 1509* or GEOLOGY 1110	General Biology (3) and Lab* (1) or General Chemistry I (4) and Lab* (1) or College Physics I* (4) or Engineering Physics* (4) or Introductory Astronomy (3) or Introductory Astronomy (3) and Lab* (1) or Physical and Environmental Geology (3) or higher science lecture *Lab satisfies science lab requirement below.
6			6	
Science Lab	One lab course from any physical or biological science if not taken with lecture course above.		Science Lab	One lab course from any physical or biological science if not taken with lecture course above.
1			1	
MATH 155 or MATH 171 or MATH 201	Contemporary Math or College Algebra or Statistics or higher math or statistics		MATH 1110 or MATH 1140 or STAT 1115	Mathematical Reasoning and Modeling or College Algebra or Statistics for the Social Sciences I or higher math or statistics
3			3	
GEOS 145	World Regional Geography		HISTORY 2110	World Regional Geography
3			3	
HIST 125 or HIST 151	Western Civ: Ancient World to the Renaissance or World History: Traditional		HISTORY 1100	Early Western Civilization
3			3	
HIST 126	Western Civ: Scientific Revolution to Modern Age		HISTORY 1200	Modern Western Civilization
3			3	
HIST 140 or HIST 141	U.S. History to 1877 or U.S. History since 1877		HISTORY 1300 or HISTORY 1310	American History to 1877 or American History since 1877
3			3	
ECON 231 or ECON 230	Principles of Microeconomics or Principles of Macroeconomics		ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics
3			3	
ENGL 232	Children's Literature		EDUC 3430	Diverse Literature for Children
3			3	
PSYC 130	Intro to Psychology		PSYCH 1101	General Psychology
3			3	
MUS 121 or MUS 126	Intro to Music Listening or Intro to World Music		MUSIC 1150	Music Appreciation
3			3	
Group 2 Emphasis/Focus Area Requirements	34		Group 2 Emphasis/Focus Area Requirements	34
Group 1 Core Requirements	21		Group 1 Core Requirements	21
Total Hours	55		Total Hours*	55

*S&T advisor permission is required to transfer more than 63 credits toward
the S&T degree for the Elementary Emphasis Area.

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

Middle School Language Arts Emphasis

Johnson County Community College			Semester	Missouri S&T		
MATH 155 or MATH 171 or MATH 201	Contemporary Math or College Algebra or Statistics or higher math or statistics	3	Select 6 hours from at least 2 disciplines.	MATH 1110 or MATH 1140 or STAT 1115	Mathematical Reasoning and Modeling or College Algebra or Statistics for the Social Sciences I or higher math or statistics	3
BIOL 121* or CHEM 124, 125 or PHYS 130* or PHYS 220* or ASTR 120 or ASTR 122* or GEOS 130	Intro to Biology for Non-Majors* (4) or General Chemistry I and Lab (5) or College Physics I* (5) or Engineering Physics I* (5) or Fundamentals of Astronomy (3) or Astronomy* (4) or General Geology (5) or higher science lecture *Lab satisfies science lab requirement below.	6		BIO SCI 1113, 1219* or CHEM 1310, 1319* or PHYSICS 1145* or PHYSICS 1135* or PHYSICS 1505 or PHYSICS 1505, 1509* or GEOLOGY 1110	General Biology (3) and Lab* (1) or General Chemistry I (4) and Lab* (1) or College Physics I* (4) or Engineering Physics* (4) or Introductory Astronomy (3) or Introductory Astronomy (3) and Lab* (1) or Physical and Environmental Geology (3) or higher science lecture *Lab satisfies science lab requirement below.	6
Science Lab	One lab course from any physical or biological science if not taken with lecture course above.	1		Science Lab	One lab course from any physical or biological science if not taken with lecture course above.	1
CS 235 or CS 250 or CS 200	Object-Oriented Programming Using C++ or Basic Data Structures using C++ or Concepts of Programming Algorithms Using C++	4		COMP SCI 1500 or COMP SCI 1971/1981* or	Computational Problem Solving or Intro to Programming Methodology and Lab* *Department will substitute for this requirement.	3
MUS 121 or MUS 126 or THEA 120	Intro to Music Listening or Intro to World Music or Intro to Theatre	3		MUSIC 1150 or THEATRE 1190	Music Appreciation or Theatre via Video	3
HIST 125 or HIST 151 or HIST 126 or HIST 140 or HIST 141	Western Civ: Ancient World to the Renaissance or World History: Traditional or Western Civ: Scientific Revolution to Modern Age or U.S. History to 1877 or U.S. History since 1877	3		HISTORY 1100 or HISTORY 1200 or HISTORY 1300 or HISTORY 1310	Early Western Civilization or Modern Western Civilization or American History to 1877 or American History since 1877	3
ECON 231 or ECON 230	Principles of Microeconomics or Principles of Macroeconomics	3		ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3
Literature	Literature Elective Any literature with prerequisite of no more than English Composition I.	3		Literature	Literature Elective Any literature with prerequisite of no more than ENGLISH 1120.	3
UL Literature	Upper Level Literature Elective	3		UL Literature	Upper Level Literature Elective	3
Humanities	Any philosophy, fine art, literature, foreign language	3		Humanities	Any philosophy, fine art, literature, foreign language	3
	Group 2 Emphasis/Focus Area Requirements	32		Group 2 Emphasis/Focus Area Requirements	31	
	Group 1 Core Requirements	21		Group 1 Core Requirements	21	
	Total Hours	53			Total Hours* 52	
*S&T advisor permission is required to transfer more than 62 credits toward the S&T degree for Middle School English Emphasis Area.						
Professional Requirements for Teacher Education Program: Please view all program requirements at https://teachereducation.mst.edu/secondaryeducation/ .						

Middle School Mathematics Emphasis

Johnson County Community College		Semester	Missouri S&T	
BIOL 121* or CHEM 124, 125 or PHYS 130* or PHYS 220* or ASTR 120 or ASTR 122* or GEOS 130	Intro to Biology for Non-Majors* (4) or General Chemistry I and Lab (5) or College Physics I* (5) or Engineering Physics I* (5) or Fundamentals of Astronomy (3) or Astronomy* (4) or General Geology (5) or higher science lecture *Lab satisfies science lab requirement below.	6	BIO SCI 1113, 1219* or CHEM 1310, 1319* or PHYSICS 1145* or PHYSICS 1135* or PHYSICS 1505 or PHYSICS 1505, 1509* or GEOLOGY 1110	General Biology (3) and Lab* (1) or General Chemistry I (4) and Lab* (1) or College Physics I* (4) or Engineering Physics* (4) or Introductory Astronomy (3) or Introductory Astronomy (3) and Lab* (1) or Physical and Environmental Geology (3) or higher science lecture *Lab satisfies science lab requirement below.
Science Lab	One lab course from any physical or biological science if not taken with lecture course above.	1	Science Lab	One lab course from any physical or biological science if not taken with lecture course above.
MATH 116	Intermediate Algebra	3	MATH 1103	Fundamentals of Algebra
MATH 171	College Algebra	3	MATH 1140	College Algebra
MATH 241	Calculus I	5	MATH 1214	Calculus I (4)
MATH 242 or MATH 231 and 232	Calculus II or Business and Applied Calculus I and II (6)* *The combination of JCCC MATH 231 and 232 is equivalent to S&T MATH 1212.	5	MATH 1215 or MATH 1212*	Calculus II (4) or Survey of Calculus (4)* *The combination of MATH 231 and 232 is equivalent to S&T MATH 1212.
CS 235 or CS 250 or CS 200	Object-Oriented Programming Using C++ or Basic Data Structures using C++ or Concepts of Programming Algorithms Using C++	4	COMP SCI 1500 or COMP SCI 1971/1981* or	Computational Problem Solving or Intro to Programming Methodology and Lab* *Department will substitute for this requirement.
MATH 201	Statistics	3	STAT 1115	Statistics for the Social Sciences I
MUS 121 or MUS 126 or THEA 120	Intro to Music Listening or Intro to World Music or Intro to Theatre	3	MUSIC 1150 or THEATRE 1190	Music Appreciation or Theatre via Video
HIST 125 or HIST 151 or HIST 126 or HIST 140 or HIST 141	Western Civ: Ancient World to the Renaissance or World History: Traditional or Western Civ: Scientific Revolution to Modern Age or U.S. History to 1877 or U.S. History since 1877	3	HISTORY 1100 or HISTORY 1200 or HISTORY 1300 or HISTORY 1310	Early Western Civilization or Modern Western Civilization or American History to 1877 or American History since 1877
ECON 231 or ECON 230	Principles of Microeconomics or Principles of Macroeconomics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics
Humanities	Any philosophy, fine art, literature, foreign language	3	Humanities	Any philosophy, fine art, literature, foreign language
	Group 2 Emphasis/Focus Area Requirements	42		Group 2 Emphasis/Focus Area Requirements
	Group 1 Core Requirements	21		Group 1 Core Requirements
	Total Hours	63		Total Hours*
				60
*S&T advisor permission is required to transfer more than 60 credits toward the S&T degree for Middle School Math Emphasis Area.				
Professional Requirements for Teacher Education Program:				
Please view all program requirements at https://teachereducation.mst.edu/secondaryeducation/ .				

Middle School Science Emphasis

<u>Johnson County Community College</u>			<u>Semester</u>	<u>Missouri S&T</u>		
BIOL 121	Intro to Biology for Non-Majors	4		BIO SCI 1113, 1219	General Biology (3) and Lab (2)	4
EVNR 130	Environmental Science	3		BIO SCI 1173	Intro to Environmental Sciences	3
BIOL 205	General Genetics	3		BIO SCI 2223	General Genetics	3
GEOS 130	General Geology	5		GEOLOGY 1110	Physical and Environmental Geology	3
ASTR 120 or ASTR 122 or PHYS 130 or	Fundamentals of Astronomy (3) or Astronomy (4) or College Physics I (5) or	3		PHYSICS 1505 or PHYSICS 1505, 1509* or PHYSICS 1145	Introductory Astronomy (3) or Introductory Astronomy (3) and Lab* (1) or College Physics I (4) Satisfies the 3-hour science requirement. Any additional credit hours apply to degree totals as general elective credit. *PHYSICS 1509 is not a degree requirement; transfers as general elective credit.	3
CHEM 124, 125	General Chemistry I and Lab	5		CHEM 1310, 1319	General Chemistry I and Lab	5
MATH 155 or MATH 171 or MATH 201	Contemporary Math or College Algebra or Statistics or higher math or statistics	3		MATH 1110 or MATH 1140 or STAT 1115	Mathematical Reasoning and Modeling or College Algebra or Statistics for the Social Sciences I or higher math or statistics	3
MATH 201	Statistics	3		STAT 1115	Statistics for the Social Sciences I	3
MUS 121 or MUS 126 or THEA 120	Intro to Music Listening or Intro to World Music or Intro to Theatre	3		MUSIC 1150 or THEATRE 1190	Music Appreciation or Theatre via Video	3
HIST 125 or HIST 151 or HIST 126 or HIST 140 or HIST 141	Western Civ: Ancient World to the Renaissance or World History: Traditional or Western Civ: Scientific Revolution to Modern Age or U.S. History to 1877 or U.S. History since 1877	3		HISTORY 1100 or HISTORY 1200 or HISTORY 1300 or HISTORY 1310	Early Western Civilization or Modern Western Civilization or American History to 1877 or American History since 1877	3
ECON 231 or ECON 230	Principles of Microeconomics or Principles of Macroeconomics	3		ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3
Humanities	Any philosophy, fine art, literature, foreign language	3		Humanities	Any philosophy, fine art, literature, foreign language	3
	Group 2 Emphasis/Focus Area Requirements	41			Group 2 Emphasis/Focus Area Requirements	39
	Group 1 Core Requirements	21			Group 1 Core Requirements	21
	Total Hours	62			Total Hours*	60

*S&T advisor permission is required to transfer more than 61 credits toward the S&T degree for Middle School Science Emphasis Area.

Professional Requirements for Teacher Education Program:

Please view all program requirements at <https://teachereducation.mst.edu/secondaryeducation/>.

Middle School Social Sciences Emphasis

Johnson County Community College			Semester	Missouri S&T		
MATH 155 or MATH 171 or MATH 201	Contemporary Math or College Algebra or Statistics or higher math or statistics	3	Select 6 hours from at least 2 disciplines.	MATH 1110 or MATH 1140 or STAT 1115	Mathematical Reasoning and Modeling or College Algebra or Statistics for the Social Sciences I or higher math or statistics	3
BIOL 121* or CHEM 124, 125 or PHYS 130* or PHYS 220* or ASTR 120 or ASTR 122* or GEOS 130	Intro to Biology for Non-Majors* (4) or General Chemistry I and Lab (5) or College Physics I* (5) or Engineering Physics I* (5) or Fundamentals of Astronomy (3) or Astronomy* (4) or General Geology (5) or higher science lecture *Lab satisfies science lab requirement below.	6		BIO SCI 1113, 1219* or CHEM 1310, 1319* or PHYSICS 1145* or PHYSICS 1135* or PHYSICS 1505 or PHYSICS 1505, 1509* or GEOLOGY 1110	General Biology (3) and Lab* (1) or General Chemistry I (4) and Lab* (1) or College Physics I* (4) or Engineering Physics* (4) or Introductory Astronomy (3) or Introductory Astronomy (3) and Lab* (1) or Physical and Environmental Geology (3) or higher science lecture *Lab satisfies science lab requirement below.	6
Science Lab	One lab course from any physical or biological science if not taken with lecture course above.	1		Science Lab	One lab course from any physical or biological science if not taken with lecture course above.	1
CS 235 or CS 250 or CS 200	Object-Oriented Programming Using C++ or Basic Data Structures using C++ or Concepts of Programming Algorithms Using C++	4		COMP SCI 1500 or COMP SCI 1971/1981* or	Computational Problem Solving or Intro to Programming Methodology and Lab* *Department will substitute for this requirement.	3
GEOS 145	World Regional Geography	3		HISTORY 2110	World Regional Geography	3
HIST 125 or HIST 151 or HIST 126	Western Civ: Ancient World to the Renaissance or World History: Traditional or Western Civ: Scientific Revolution to Modern Age	3		HISTORY 1100 or HISTORY 1200	Early Western Civilization or Modern Western Civilization	3
HIST 140 or HIST 141	U.S. History to 1877 or U.S. History since 1877	3		HISTORY 1300 or HISTORY 1310	American History to 1877 or American History since 1877	3
MUS 121 or MUS 126 or THEA 120	Intro to Music Listening or Intro to World Music or Intro to Theatre	3		MUSIC 1150 or THEATRE 1190	Music Appreciation or Theatre via Video	3
ECON 231 or ECON 230	Principles of Microeconomics or Principles of Macroeconomics	3		ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3
Humanities	Any philosophy, fine art, literature, foreign language	3		Humanities	Any philosophy, fine art, literature, foreign language	3
	Group 2 Emphasis/Focus Area Requirements	32		Group 2 Emphasis/Focus Area Requirements	31	
	Group 1 Core Requirements	21		Group 1 Core Requirements	21	
	Total Hours	53		Total Hours*	52	
*S&T advisor permission is required to transfer more than 62 credits toward the S&T degree for Middle School Social Sciences Emphasis Area.						
Professional Requirements for Teacher Education Program: Please view all program requirements at https://teachereducation.mst.edu/secondaryeducation/ .						

Secondary Teaching Art Emphasis

<u>Johnson County Community College</u>			<u>Semester</u>	<u>Missouri S&T</u>		
ART 130	Drawing I	3	Select 6 hours from at least 2 disciplines.	ART 1120	Drawing I	3
ART 135	Painting I	3		ART 1140	Painting I	3
ART 145	Sculpture I	3		ART 1164	Sculpture	3
BIOL 121* or	Intro to Biology for Non-Majors* (4) or	6		BIO SCI 1113, 1219* or	General Biology (3) and Lab* (1) or	6
CHEM 124, 125 or	General Chemistry I and Lab (5) or			CHEM 1310, 1319* or	General Chemistry I (4) and Lab* (1) or	
PHYS 130* or	College Physics I* (5) or			PHYSICS 1145* or	College Physics I* (4) or	
PHYS 220* or	Engineering Physics I* (5) or			PHYSICS 1135* or	Engineering Physics* (4) or	
ASTR 120 or	Fundamentals of Astronomy (3) or			PHYSICS 1505 or	Introductory Astronomy (3) or	
ASTR 122* or	Astronomy* (4) or			PHYSICS 1505, 1509* or	Introductory Astronomy (3) and Lab* (1) or	
GEOS 130	General Geology (5) or higher science lecture *Lab satisfies science lab requirement below.			GEOLOGY 1110	Physical and Environmental Geology (3) or higher science lecture *Lab satisfies science lab requirement below.	
Science Lab	One lab course from any physical or biological science if not taken with lecture course above.	1	Science Lab	One lab course from any physical or biological science if not taken with lecture course above.	1	
ENGL 236 or	British Literature to 1800 or	3	ENGLISH 1211 or	British Literature I: The Beginnings to 1800 or	3	
ENGL 237 or	British Literature after 1800 or		ENGLISH 1212 or	British Literature II: 1800 to Present		
ENGL 246 or	American Literature I or		ENGLISH 1221 or	American Literature: 1600 to 1865 or		
ENGL 247 or	American Literature II or		ENGLISH 1222 or	American Literature: 1865 to Present or		
ENGL 251 or	World Literature to 1620 or		ENGLISH 1231 or	World Literature I: Beginnings to the Renaissance or		
HIST 140* or	US History to 1877* or		HISTORY 1300* or	American History to 1877* or		
HIST 141* or	US History since 1877* or	HISTORY 1310* or	American History Since 1877* or			
MUS 121 or	Intro to Music Listening or	MUSIC 1150 or	MUSIC 1150 or	Music Appreciation or		
MUS 126 or	Intro to World Music or	MUSIC 1150 or	MUSIC 1150 or	Music Appreciation or		
THEA 120 or	Intro to Theatre or		THEATRE 1190 or	Theatre via Video or		
Literature	Any literature with prerequisite of no more than English Composition I. *Satisfies the State of Missouri government requirement.		Literature	Any literature with prerequisite of no more than ENGLISH 1120. *Satisfies the State of Missouri government requirement.		
MATH 155 or	Contemporary Math or	3	MATH 1110 or	Mathematical Reasoning and Modeling or	3	
MATH 171 or	College Algebra or		MATH 1140 or	College Algebra or		
MATH 201	Statistics or higher math or statistics		STAT 1115	Statistics for the Social Sciences I or higher math or statistics		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	
	Group 2 Emphasis/Focus Area Requirements	25		Group 2 Emphasis/Focus Area Requirements	25	
	Group 1 Core Requirements	21		Group 1 Core Requirements	21	
	Total Hours	46		Total Hours*	46	
*S&T advisor permission is required to transfer more than 61 credits toward the S&T degree for Middle School Science Emphasis Area.						
Professional Requirements for Teacher Education Program: Please view all program requirements at https://teachereducation.mst.edu/secondaryeducation/ .						

Secondary Teaching Computer Science Emphasis

Johnson County Community College			Semester	Missouri S&T		
BUS 241	Principles of Management	3	Select 6 hours from at least 2 disciplines.	BUS 1110	Intro to Management and Entrepreneurship	3
BLAW 261	Business Law I	3		BUS 2910	Business Law	3
BIOL 121* or CHEM 124, 125 or PHYS 130* or PHYS 220* or ASTR 120 or ASTR 122* or GEOS 130	Intro to Biology for Non-Majors* (4) or General Chemistry I and Lab (5) or College Physics I* (5) or Engineering Physics I* (5) or Fundamentals of Astronomy (3) or Astronomy* (4) or General Geology (5) or higher science lecture *Lab satisfies science lab requirement below.	6		BIO SCI 1113, 1219* or CHEM 1310, 1319* or PHYSICS 1145* or PHYSICS 1135* or PHYSICS 1505 or PHYSICS 1505, 1509* or GEOLOGY 1110	General Biology (3) and Lab* (1) or General Chemistry I (4) and Lab* (1) or College Physics I* (4) or Engineering Physics* (4) or Introductory Astronomy (3) or Introductory Astronomy (3) and Lab* (1) or Physical and Environmental Geology (3) or higher science lecture *Lab satisfies science lab requirement below.	6
Science Lab	One lab course from any physical or biological science if not taken with lecture course above.	1		Science Lab	One lab course from any physical or biological science if not taken with lecture course above.	1
MATH 155 or MATH 171 or MATH 201	Contemporary Math or College Algebra or Statistics or higher math or statistics	3		MATH 1110 or MATH 1140 or STAT 1115	Mathematical Reasoning and Modeling or College Algebra or Statistics for the Social Sciences I or higher math or statistics	3
ENGL 236 or ENGL 237 or ENGL 246 or ENGL 247 or ENGL 251 or HIST 140* or HIST 141* or MUS 121 or MUS 126 or THEA 120 or Literature	British Literature to 1800 or British Literature after 1800 or American Literature I or American Literature II or World Literature to 1620 or US History to 1877* or US History since 1877* or Intro to Music Listening or Intro to World Music or Intro to Theatre or Any literature with prerequisite of no more than English Composition I. *Satisfies the State of Missouri government requirement.	3		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or MUSIC 1150 or MUSIC 1150 or THEATRE 1190 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Music Appreciation or Music Appreciation or Theatre via Video or Any literature with prerequisite of no more than ENGLISH 1120. *Satisfies the State of Missouri government requirement.	3
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3		HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
Group 2 Emphasis/Focus Area Requirements		22		Group 2 Emphasis/Focus Area Requirements		22
Group 1 Core Requirements		21		Group 1 Core Requirements		21
Total Hours		43		Total Hours*		43
*S&T advisor permission is required to transfer more than 61 credits toward the S&T degree for Middle School Science Emphasis Area.						

*S&T advisor permission is required to transfer more than 61 credits toward the S&T degree for Middle School Science Emphasis Area.

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

Secondary Teaching General Science Emphasis

<u>Johnson County Community College</u>			<u>Semester</u>	<u>Missouri S&T</u>		
BIOL 121	Intro to Biology for Non-Majors	4	BIO SCI 1113, 1219	General Biology (3) and Lab (2)	4	
EVNR 130	Environmental Science	3	BIO SCI 1173	Intro to Environmental Sciences	3	
BIOL 205	General Genetics	3	BIO SCI 2223	General Genetics	3	
CHEM 124, 125	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5	
GEOS 130	General Geology	5	GEOLOGY 1110	Physical and Environmental Geology	3	
ASTR 120 or ASTR 122	Fundamentals of Astronomy (3) or Astronomy (4)	3	PHYSICS 1505 or PHYSICS 1505, 1509*	Introductory Astronomy (3) or Introductory Astronomy (3) and Lab* (1) *PHYSICS 1509 is not a degree requirement; transfers as general elective credit.	3	
			PHYSICS 1145	College Physics I	4	
MATH 155 or MATH 171 or MATH 201	Contemporary Math or College Algebra or Statistics or higher math or statistics	3	MATH 1110 or MATH 1140 or STAT 1115	Mathematical Reasoning and Modeling or College Algebra or Statistics for the Social Sciences I or higher math or statistics	3	
ENGL 236 or ENGL 237 or ENGL 246 or ENGL 247 or ENGL 251 or HIST 140* or HIST 141* or MUS 121 or MUS 126 or THEA 120 or Literature	British Literature to 1800 or British Literature after 1800 or American Literature I or American Literature II or World Literature to 1620 or US History to 1877* or US History since 1877* or Intro to Music Listening or Intro to World Music or Intro to Theatre or Any literature with prerequisite of no more than English Composition I. *Satisfies the State of Missouri government requirement.	3	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or MUSIC 1150 or MUSIC 1150 or THEATRE 1190 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Music Appreciation or Music Appreciation or Theatre via Video or Any literature with prerequisite of no more than ENGLISH 1120. *Satisfies the State of Missouri government requirement.	3	
	Group 2 Emphasis/Focus Area Requirements	29		Group 2 Emphasis/Focus Area Requirements	31	
	Group 1 Core Requirements	21		Group 1 Core Requirements	21	
	Total Hours	50		Total Hours*	52	
Professional Requirements for Teacher Education Program: Please view all program requirements at https://teachereducation.mst.edu/secondaryeducation/ . *S&T advisor permission is required to transfer more than 61 credits toward the S&T degree for Middle School Science Emphasis Area.						

Secondary Teaching Spanish Emphasis

Johnson County Community College			Semester	Missouri S&T			
FL 130	Elementary Spanish I	5	Select 6 hours from at least 2 disciplines.	SPANISH 1101	Elementary Spanish I	3	
FL 131	Elementary Spanish II	5		SPANISH 1102	Elementary Spanish II	3	
FL 230	Intermediate Spanish I	3		SPANISH 1180	Intermediate Spanish	3	
MATH 155 or MATH 171 or MATH 201	Contemporary Math or College Algebra or Statistics or higher math or statistics	3		MATH 1110 or MATH 1140 or STAT 1115	Mathematical Reasoning and Modeling or College Algebra or Statistics for the Social Sciences I or higher math or statistics	3	
BIOL 121* or CHEM 124, 125 or PHYS 130* or PHYS 220* or ASTR 120 or ASTR 122* or GEOS 130	Intro to Biology for Non-Majors* (4) or General Chemistry I and Lab (5) or College Physics I* (5) or Engineering Physics I* (5) or Fundamentals of Astronomy (3) or Astronomy* (4) or General Geology (5) or higher science lecture *Lab satisfies science lab requirement below.	6		BIO SCI 1113, 1219* or CHEM 1310, 1319* or PHYSICS 1145* or PHYSICS 1135* or PHYSICS 1505 or PHYSICS 1505, 1509* or GEOLOGY 1110	General Biology (3) and Lab* (1) or General Chemistry I (4) and Lab* (1) or College Physics I* (4) or Engineering Physics* (4) or Introductory Astronomy (3) or Introductory Astronomy (3) and Lab* (1) or Physical and Environmental Geology (3) or higher science lecture *Lab satisfies science lab requirement below.	6	
Science Lab	One lab course from any physical or biological science if not taken with lecture course above.	1		Science Lab	One lab course from any physical or biological science if not taken with lecture course above.	1	
ENGL 236 or ENGL 237 or ENGL 246 or ENGL 247 or ENGL 251 or HIST 140* or HIST 141* or MUS 121 or MUS 126 or THEA 120 or Literature	British Literature to 1800 or British Literature after 1800 or American Literature I or American Literature II or World Literature to 1620 or US History to 1877* or US History since 1877* or Intro to Music Listening or Intro to World Music or Intro to Theatre or Any literature with prerequisite of no more than English Composition I. *Satisfies the State of Missouri government requirement.	3		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or MUSIC 1150 or MUSIC 1150 or THEATRE 1190 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Music Appreciation or Music Appreciation or Theatre via Video or Any literature with prerequisite of no more than ENGLISH 1120. *Satisfies the State of Missouri government requirement.	3	
	Group 2 Emphasis/Focus Area Requirements	26			Group 2 Emphasis/Focus Area Requirements	22	
	Group 1 Core Requirements	21			Group 1 Core Requirements	21	
	Total Hours	21				Total Hours* 21	
*S&T advisor permission is required to transfer more than 61 credits toward the S&T degree for Middle School Science Emphasis Area.							
Professional Requirements for Teacher Education Program: Please view all program requirements at https://teachereducation.mst.edu/secondaryeducation/ .							