

Crowder 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.

Crowder College			Semester	Missouri S&T		
ENGL 101	English Composition	3		ENGLISH 1120	Exposition and Argumentation	3
ENGL 102 or COMM 104	Advanced English Composition or Fundamentals of Speech	3		ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
PHIL 101 or PHIL 201	Intro to Western Philosophy or Logic	3		PHILOS 1105 or PHILOS 1115	Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction	3
PLSC 103 or HIST 102	National, State, Local Government or Western Civilization II	3		POL SCI 1200 or HISTORY 1200	American Government or Modern Western Civilization	3
EDUC 125	Intro to Education	3		EDUC 1074	Education in a Diverse Society	3
EDUC 251	Teaching Profession with Field Experience	3		EDUC 1104	Teacher Field Experience I	1
EDUC 231	Educational Psychology	3		EDUC 2102 or PSYCH 2300	Educational Psychology	3
PSYC 211	Lifespan Development	3		PSYCH 3310	Developmental Psychology	3
EDUC 240	Education of Exceptional Learners	3		EDUC 2310 or PSYCH 4310	Education of the Exceptional Child or Psychology of the Exceptional Child	3
			Total Hours	27		
					Total Hours	25

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

Early Childhood						
Crowder 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 101* or CHEM 111* or PHYS 190* or PHYS 105 or GEOL 115	General Biology* (4) or General Chemistry I* (5) or General Physics* (5) or Descriptive Astronomy (3) or Intro to Geology (4) 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 1135* or PHYSICS 1505 or GEOLOGY 1110	General Biology (3) and Lab* (1) or General Chemistry I (4) and Lab* (1) or Engineering Physics* (4) or Introductory Astronomy (3) 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 125 or MATH 135 or BSAD 236 or MATH 130	Quantitative Reasoning or Algebra for Calculus or Business Statistics or Elementary 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
GEOG 111	World Regional Geography	3		HISTORY 2110	World Regional Geography	3
HIST 106 or HIST 107 or HIST 101 or HIST 102	US History I or US History II or Western Civilization I or Western Civilization II	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
EDUC 206	Literature for Children	3		EDUC 3430	Diverse Literature for Children	3
Literature	Literature Elective	3		Literature	Literature Elective	3
PSYC 101	General Psychology	3		PSYCH 1101	General Psychology	3
ART 101 or MUSC 101	Art Appreciation or Music Appreciation	3		ART 1180 or MUSIC 1150	Art Appreciation or 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.						
ECD 101	Foundations and Theories in Early Childhood Education	3	EDUC 1055	Intro to Early Childhood Education	3	
ECD 103	Health, Safety, and Nutrition of Young Children	3	EDUC 1221	Health, Nutrition, and Safety in Early Childhood Education	3	
	Group 2 Emphasis/Focus Area Requirements	34		Group 2 Emphasis/Focus Area Requirements	36	
	Group 1 Core Requirements	27		Group 1 Core Requirements	25	
	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

Crowder College		Semester	Missouri S&T	
BIOL 101* or CHEM 111* or PHYS 190* or PHYS 105 or GEOL 115	General Biology* (4) or General Chemistry I* (5) or General Physics* (5) or Descriptive Astronomy (3) or Intro to Geology (4) or higher science lecture *Lab satisfies science lab requirement below.	6	BIO SCI 1113, 1219* or CHEM 1310, 1319* or PHYSICS 1135* or PHYSICS 1505 or GEOLOGY 1110	General Biology (3) and Lab* (1) or General Chemistry I (4) and Lab* (1) or Engineering Physics* (4) or Introductory Astronomy (3) 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 125 or MATH 135 or BSAD 236 or MATH 130	Quantitative Reasoning or Algebra for Calculus or Business Statistics or Elementary 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
GEOG 111	World Regional Geography	3	HISTORY 2110	World Regional Geography
HIST 101	Western Civilization I	3	HISTORY 1100	Early Western Civilization
HIST 102	Western Civilization II	3	HISTORY 1200	Modern Western Civilization
HIST 106 or HIST 107	US History I or US History II	3	HISTORY 1300 or HISTORY 1310	American History to 1877 or American History since 1877
ECON 202 or ECON 201	Principles of Microeconomics or Principles of Macroeconomics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics
EDUC 206	Literature for Children	3	EDUC 3430	Diverse Literature for Children
PSYC 101	General Psychology	3	PSYCH 1101	General Psychology
ART 101 or MUSC 101	Art Appreciation or Music Appreciation	3	ART 1180 or MUSIC 1150	Art Appreciation or Music Appreciation
	Group 2 Emphasis/Focus Area Requirements	34		Group 2 Emphasis/Focus Area Requirements
	Group 1 Core Requirements	27		Group 1 Core Requirements
	Total Hours	61		Total Hours*
				59
*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

Crowder College		Semester	Missouri S&T		
MATH 125 or MATH 135 or BSAD 236 or MATH 130	Quantitative Reasoning or Algebra for Calculus or Business Statistics or Elementary 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 101* or CHEM 111* or PHYS 190* or PHYS 105 or GEOL 115	General Biology* (4) or General Chemistry I* (5) or General Physics* (5) or Descriptive Astronomy (3) or Intro to Geology (4) or higher science lecture *Lab satisfies science lab requirement below.	6	BIO SCI 1113, 1219* or CHEM 1310, 1319* or PHYSICS 1135* or PHYSICS 1505 or GEOLOGY 1110	General Biology (3) and Lab* (1) or General Chemistry I (4) and Lab* (1) or Engineering Physics* (4) or Introductory Astronomy (3) 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
COMP 111	Intro to Computer Science	4	COMP SCI 1971/1981*	Intro to Programming Methodology and Lab* *Department will substitute for this requirement.	3
ART 101 or MUSC 101 or TA 205	Art Appreciation or Music Appreciation or Intro to Theatre	3	ART 1180 or MUSIC 1150 or THEATRE 1190	Art Appreciation or Music Appreciation or Theatre via Video	3
HIST 101 or HIST 102 or HIST 106 or HIST 107	Western Civilization I or Western Civilization II or US History I or US History II	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 202 or ECON 201	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	27		Group 1 Core Requirements	25
	Total Hours	59		Total Hours*	56
			*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

<u>Crowder College</u>		<u>Semester</u>	<u>Missouri S&T</u>	
BIOL 101* or CHEM 111* or PHYS 190* or PHYS 105 or GEOL 115	General Biology* (4) or General Chemistry I* (5) or General Physics* (5) or Descriptive Astronomy (3) or Intro to Geology (4) or higher science lecture *Lab satisfies science lab requirement below.	6	BIO SCI 1113, 1219* or CHEM 1310, 1319* or PHYSICS 1135* or PHYSICS 1505 or GEOLOGY 1110	General Biology (3) and Lab* (1) or General Chemistry I (4) and Lab* (1) or Engineering Physics* (4) or Introductory Astronomy (3) 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 100	Intermediate Algebra	3	MATH 1103	Fundamentals of Algebra
MATH 135	Algebra for Calculus	3	MATH 1140	College Algebra
MATH 150, 160	Calculus Part 1 and 2	5	MATH 1214	Calculus I
MATH 201	Calculus II	5	MATH 1215	Calculus II
COMP 111	Intro to Computer Science	4	COMP SCI 1971/1981*	Intro to Programming Methodology and Lab* *Department will substitute for this requirement.
MATH 130 or BSAD 236	Elementary Statistics or Business Statistics	3	STAT 1115	Statistics for the Social Sciences I
ART 101 or MUSC 101 or TA 205	Art Appreciation or Music Appreciation or Intro to Theatre	3	ART 1180 or MUSIC 1150 or THEATRE 1190	Art Appreciation or Music Appreciation or Theatre via Video
HIST 101 or HIST 102 or HIST 106 or HIST 107	Western Civilization I or Western Civilization II or US History I or US History II	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 202 or ECON 201	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	27		Group 1 Core Requirements
	Total Hours	69		Total Hours*
				64
*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>Crowder College</u>			<u>Semester</u>	<u>Missouri S&T</u>	
BIOL 101	General Biology	5	BIO SCI 1113 or BIO SCI 1213	General Biology or Principles of Biology	4
GEOL 115	Geology	5	GEOLOGY 1110	Physical and Environmental Geology	3
PHYS 105	Descriptive Astronomy	3	PHYSICS 1505	Introductory Astronomy Satisfies the 3-hour science requirement. Any additional credit hours apply to degree totals as general elective credit.	3
CHEM 111	General Chemistry	5	CHEM 1310, 1319	General Chemistry I and Lab	5
MATH 125 or MATH 135 or BSAD 236 or MATH 130	Quantitative Reasoning or Algebra for Calculus or Business Statistics or Elementary 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 130 or BSAD 236	Elementary Statistics or Business Statistics	3	STAT 1115	Statistics for the Social Sciences I	3
ART 101 or MUSC 101 or TA 205	Art Appreciation or Music Appreciation or Intro to Theatre	3	ART 1180 or MUSIC 1150 or THEATRE 1190	Art Appreciation or Music Appreciation or Theatre via Video	3
HIST 101 or HIST 102 or HIST 106 or HIST 107	Western Civilization I or Western Civilization II or US History I or US History II	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 202 or ECON 201	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	36		Group 2 Emphasis/Focus Area Requirements	33
	Group 1 Core Requirements	27		Group 1 Core Requirements	25
	Total Hours	63		Total Hours*	58

*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/>.

Middle School Social Sciences Emphasis

Crowder College		Semester	Missouri S&T		
MATH 125 or MATH 135 or BSAD 236 or MATH 130	Quantitative Reasoning or Algebra for Calculus or Business Statistics or Elementary 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 101* or CHEM 111* or PHYS 190* or PHYS 105 or GEOL 115	General Biology* (4) or General Chemistry I* (5) or General Physics* (5) or Descriptive Astronomy (3) or Intro to Geology (4) or higher science lecture *Lab satisfies science lab requirement below.	6	BIO SCI 1113, 1219* or CHEM 1310, 1319* or PHYSICS 1135* or PHYSICS 1505 or GEOLOGY 1110	General Biology (3) and Lab* (1) or General Chemistry I (4) and Lab* (1) or Engineering Physics* (4) or Introductory Astronomy (3) 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
COMP 111	Intro to Computer Science	4	COMP SCI 1971/1981*	Intro to Programming Methodology and Lab* *Department will substitute for this requirement.	3
GEOG 111	World Regional Geography	3	HISTORY 2110	World Regional Geography	3
HIST 101 or HIST 102	Western Civilization I or Western Civilization II	3	HISTORY 1100 or HISTORY 1200	Early Western Civilization or Modern Western Civilization	3
HIST 106 or HIST 107	US History I or US History II	3	HISTORY 1300 or HISTORY 1310	American History to 1877 or American History since 1877	3
ART 101 or MUSC 101 or TA 205	Art Appreciation or Music Appreciation or Intro to Theatre	3	ART 1180 or MUSIC 1150 or THEATRE 1190	Art Appreciation or Music Appreciation or Theatre via Video	3
ECON 202 or ECON 201	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	29		Group 2 Emphasis/Focus Area Requirements	28
	Group 1 Core Requirements	27		Group 1 Core Requirements	25
	Total Hours	56		Total Hours*	53
*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

Crowder College			Semester	Missouri S&T		
ART 106	Drawing I	3		ART 1120	Drawing I	3
ART 107	Painting I	3		ART 1140	Painting I	3
ART 1164	Sculpture I	3		ART 1164	Sculpture	3
ART 101	Art Appreciation	3		ART 1180	Art Appreciation	3
BIOL 101* or CHEM 111* or PHYS 190* or PHYS 105 or GEOL 115	General Biology* (4) or General Chemistry I* (5) or General Physics* (5) or Descriptive Astronomy (3) or Intro to Geology (4) 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 1135* or PHYSICS 1505 or GEOLOGY 1110	General Biology (3) and Lab* (1) or General Chemistry I (4) and Lab* (1) or Engineering Physics* (4) or Introductory Astronomy (3) 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 125 or MATH 135 or BSAD 236 or MATH 130	Quantitative Reasoning or Algebra for Calculus or Business Statistics or Elementary 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 240 or ENGL 245 or ENGL 230 or ENGL 235 or ENGL 222 or HIST 106* or HIST 107* or MUSC 101 or TA 205 or Literature	British Literature I or British Literature II or Survey of American Literature I or Survey of American Literature II or World Literature I or U.S. History I* or U.S. History II* or Music Appreciation or Intro to Theatre or Any literature with prerequisite of no more than English Composition I. *Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* 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 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	19		Group 2 Emphasis/Focus Area Requirements	16	
	Group 1 Core Requirements	27		Group 1 Core Requirements	25	
	Total Hours	46		Total Hours*	41	
*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

Crowder College			Semester	Missouri S&T		
BSAD 230	Business Law	3	Select 6 hours from at least 2 disciplines.	BUS 2910	Business Law	3
ENGL 240 or ENGL 245 or ENGL 230 or ENGL 235 or ENGL 222 or HIST 106* or HIST 107* or ART 101 or MUSC 101 or TA 205 or Literature	British Literature I or British Literature II or Survey of American Literature I or Survey of American Literature II or World Literature I or U.S. History I* or U.S. History II* or Art Appreciation or Music Appreciation or Intro to Theatre or Any literature with prerequisite of no more than English Composition I. *Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or ART 3203 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 Art Appreciation or Architectural Design I 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.	6
MATH 125 or MATH 135 or BSAD 236 or MATH 130	Quantitative Reasoning or Algebra for Calculus or Business Statistics or Elementary 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 101* or CHEM 111* or PHYS 190* or PHYS 105 or GEOL 115	General Biology* (4) or General Chemistry I* (5) or General Physics* (5) or Descriptive Astronomy (3) or Intro to Geology (4) or higher science lecture *Lab satisfies science lab requirement below.	6		BIO SCI 1113, 1219* or CHEM 1310, 1319* or PHYSICS 1135* or PHYSICS 1505 or GEOLOGY 1110	General Biology (3) and Lab* (1) or General Chemistry I (4) and Lab* (1) or Engineering Physics* (4) or Introductory Astronomy (3) 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
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		27	Group 1 Core Requirements		25	
Total Hours		49	Total Hours*		47	
*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>Crowder College</u>			<u>Semester</u>	<u>Missouri S&T</u>		
BIOL 101	General Biology	4		BIO SCI 1113, 1219	General Biology and Lab	4
CHEM 111	General Chemistry I	5		CHEM 1310, 1319	General Chemistry I and Lab	5
GEOL 115	Geology	4		GEOLOGY 1110	Physical and Environmental Geology	3
PHYS 105	Descriptive Astronomy	3		PHYSICS 1505	Introductory Astronomy	3
MATH 125 or MATH 135 or BSAD 236 or MATH 130	Quantitative Reasoning or Algebra for Calculus or Business Statistics or Elementary 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 240 or ENGL 245 or ENGL 230 or ENGL 235 or ENGL 222 or HIST 106* or HIST 107* or ART 101 or MUSC 101 or TA 205 or Literature	British Literature I or British Literature II or Survey of American Literature I or Survey of American Literature II or World Literature I or U.S. History I* or U.S. History II* or Art Appreciation or Music Appreciation or Intro to Theatre or Any literature with prerequisite of no more than English Composition I. *Satisfies the State of Missouri government requirement.	6	Select 6 hours from at least 2 disciplines.	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 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 Art 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.	6
Group 2 Emphasis/Focus Area Requirements		25		Group 2 Emphasis/Focus Area Requirements		24
Group 1 Core Requirements		27		Group 1 Core Requirements		25
Total Hours		52		Total Hours* 49		
*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 Spanish Emphasis

Crowder College			Semester	Missouri S&T		
SPAN 101	Beginning Spanish I	3	Select 6 hours from at least 2 disciplines.	SPANISH 1101	Elementary Spanish I	3
SPAN 102	Beginning Spanish II	3		SPANISH 1102	Elementary Spanish II	3
SPAN 201	Intermediate Spanish I	3		SPANISH 1180	Intermediate Spanish	3
MATH 125 or MATH 135 or BSAD 236 or MATH 130	Quantitative Reasoning or Algebra for Calculus or Business Statistics or Elementary 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 101* or CHEM 111* or PHYS 190* or PHYS 105 or GEOL 115	General Biology* (4) or General Chemistry I* (5) or General Physics* (5) or Descriptive Astronomy (3) or Intro to Geology (4) 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 1135* or PHYSICS 1505 or GEOLOGY 1110	General Biology (3) and Lab* (1) or General Chemistry I (4) and Lab* (1) or Engineering Physics* (4) or Introductory Astronomy (3) 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 240 or ENGL 245 or ENGL 230 or ENGL 235 or ENGL 222 or HIST 106* or HIST 107* or ART 101 or MUSC 101 or TA 205 or Literature	British Literature I or British Literature II or Survey of American Literature I or Survey of American Literature II or World Literature I or U.S. History I* or U.S. History II* or Art Appreciation or Music Appreciation or Intro to Theatre or Any literature with prerequisite of no more than English Composition I. *Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 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 Art 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.	6
Group 2 Emphasis/Focus Area Requirements		25		Group 2 Emphasis/Focus Area Requirements		25
Group 1 Core Requirements		27	Group 1 Core Requirements		25	
Total Hours		27			Total Hours*	25
*S&T advisor permission is required to transfer more than 61 credits toward the S&T degree for Middle School Science Emphasis Area.						

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