

St. Charles 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.

St. Charles Community College			Semester	Missouri S&T		
ENG 101	English Composition I	3		ENGLISH 1120	Exposition and Argumentation	3
ENG 102 or COM 106	English Composition II or Public Speaking	3		ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
PHL 101 or PHL 102	Intro to Philosophy or Intro to Logic	3		PHILOS 1105 or PHILOS 1115	Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction	3
POL 101 or HIS 146	American Government or Western Civ: Modern European Heritage	3		POL SCI 1200 or HISTORY 1200	American Government or Modern Western Civilization	3
EDU 212	Foundations of Education in a Diverse Society	3		EDUC 1074	Education in a Diverse Society	3
EDU 285	Teaching Profession with Field Experience	3		EDUC 1104	Teacher Field Experience I	1
EDU 240	Educational Psychology	3		EDUC 2102 or PSYCH 2300	Educational Psychology	3
PSY 110	Human Growth and Development	3		PSYCH 3310	Developmental Psychology	3
EDU 250	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		

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

St. Charles 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.

BIO 105, 106* or BIO 150* or CHM 115* or PHY 150* or PHY 250* or PHY 130, 131* or PHY 125	Essentials of Biology and Lab* (4) or General Biology: Cells to Organisms* (5) or General Chemistry I* (5) or General Physics I* or Engineering Physics I* (5) or Astronomy (3) and Lab* (1) or Intro to Physical Geology (3) or higher science lecture *Lab satisfies science lab requirement below.	6	Select 6 hours from at least 2 disciplines.	BIO SCI 1113, 1219* or BIO SCI 1213, 1219* CHEM 1310, 1319* or PHYSICS 1145* or PHYSICS 1135* or PHYSICS 1505, 1509* or GEOLOGY 1110*	General Biology (3) and Lab* (1) or Principles of Biology (3) and Lab* (1) General Chemistry I (4) and Lab* (1) or College Physics I* (4) or Engineering Physics* (4) 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
MAT 105 or MAT 155 or MAT 158 or MAT 157 or MAT 175	Applied Mathematics (3) or Contemporary College Math (4) or College Algebra-General Education or College Statistics-General Education (4) or Introductory Statistics (3) or higher math or statistics	4		MATH 1110 or MATH 1110 or MATH 1140 or STAT 1115 or STAT 1115	Mathematical Reasoning and Modeling or Mathematical Reasoning and Modeling or College Algebra or Statistics for the Social Sciences or Statistics for the Social Sciences or higher math or statistics	3
GEO 110	Geography for Educators	3		HISTORY 2110	World Regional Geography	3
HIS 101 or HIS 102 or HIS 145 or HIS 146	US History to 1877 or US History Since 1877 or Western Civ: Ancient and Medieval Heritage or Western Civ: Modern European Heritage			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
EDU 225	Literature for Children	3		EDUC 3430	Diverse Literature for Children	3
Literature	Literature Elective	3		Literature	Literature Elective	3
PSY 101	Intro to Psychology	3		PSYCH 1101	General Psychology	3
ART 1001 or MUS 111	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.

EDU 208	Nutrition, Health, & Safety of Children	3	EDUC 1221	Health, Nutrition, and Safety in Early Childhood Education	3
EDU 205	Children, Families & Communities	3	EDUC 2401	School, Family, and Community Partnerships	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

St. Charles Community College		Semester	Missouri S&T	
BIO 105, 106* or BIO 150* or CHM 115* or PHY 150* or PHY 250* or PHY 130, 131* or PHY 125	Essentials of Biology and Lab* (4) or General Biology: Cells to Organisms* (5) or General Chemistry I* (5) or General Physics I* or Engineering Physics I* (5) or Astronomy (3) and Lab* (1) or Intro to Physical Geology (3) or higher science lecture *Lab satisfies science lab requirement below.	6	BIO SCI 1113, 1219* or BIO SCI 1213, 1219* CHEM 1310, 1319* or PHYSICS 1145* or PHYSICS 1135* or PHYSICS 1505, 1509* or GEOLOGY 1110*	General Biology (3) and Lab* (1) or Principles of Biology (3) and Lab* (1) General Chemistry I (4) and Lab* (1) or College Physics I* (4) or Engineering Physics*(4) 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.
MAT 105 or MAT 155 or MAT 158 or MAT 157 or MAT 175	Applied Mathematics (3) or Contemporary College Math (4) or College Algebra-General Education or College Statistics-General Education (4) or Introductory Statistics (3) or higher math or statistics	4	MATH 1110 or MATH 1110 or MATH 1140 or STAT 1115 or STAT 1115	Mathematical Reasoning and Modeling or Mathematical Reasoning and Modeling or College Algebra or Statistics for the Social Sciences or Statistics for the Social Sciences or higher math or statistics
GEO 110	Geography for Educators	3	HISTORY 2110	World Regional Geography
HIS 145	Western Civ: Ancient and Medieval Heritage	3	HISTORY 1100	Early Western Civilization
HIS 146	Western Civ: Modern European Heritage	3	HISTORY 1200	Modern Western Civilization
HIS 101 or HIS 102	US History to 1877 or US History Since 1877	3	HISTORY 1300 or HISTORY 1310	American History to 1877 or American History since 1877
ECO 120 or ECO 110	Principles of Microeconomics or Principles of Macroeconomics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics
EDU 225	Literature for Children	3	EDUC 3430	Diverse Literature for Children
PSY 101	Intro to Psychology	3	PSYCH 1101	General Psychology
ART 1001 or MUS 111	Art Appreciation or Music Appreciation	3	ART 1180 or MUSIC 1150	Art Appreciation or Music Appreciation
	Group 2 Emphasis/Focus Area Requirements	35		Group 2 Emphasis/Focus Area Requirements
	Group 1 Core Requirements	27		Group 1 Core Requirements
	Total Hours	62		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

<u>St. Charles Community College</u>		<u>Semester</u>	<u>Missouri S&T</u>
MAT 105 or MAT 155 or MAT 158 or MAT 157 or MAT 175	Applied Mathematics (3) or Contemporary College Math (4) or College Algebra-General Education or College Statistics-General Education (4) or Introductory Statistics (3) or higher math or statistics	4	MATH 1110 or MATH 1110 or MATH 1140 or STAT 1115 or STAT 1115
BIO 105, 106* or BIO 150* or CHM 115* or PHY 150* or PHY 250* or PHY 130, 131* or PHY 125	Essentials of Biology and Lab* (4) or General Biology: Cells to Organisms* (5) or General Chemistry I* (5) or General Physics I* or Engineering Physics I* (5) or Astronomy (3) and Lab* (1) or Intro to Physical Geology (3) or higher science lecture *Lab satisfies science lab requirement below.	6	BIO SCI 1113, 1219* or BIO SCI 1213, 1219* CHEM 1310, 1319* or PHYSICS 1145* or PHYSICS 1135* or PHYSICS 1505, 1509* or GEOLOGY 1110*
Science Lab	One lab course from any physical or biological science if not taken with lecture course above.	1	Science Lab
CPT 185 or CPT 189 or CPT 182	C# Programming (3) or Computer Science II with Java (3) or Computer Science II with C++ (3)	3	CS 1500 or CS 1500 or CS 1570*
ART 1001 or MUS 111 or THE 122	Art Appreciation or Music Appreciation or Intro to the Theatre	3	ART 1180 or MUSIC 1150 or THEATRE 1190
HIS 145 or HIS 146 or HIS 101 or HIS 102	Western Civ: Ancient and Medieval Heritage or Western Civ: Modern European Heritage or US History to 1877 or US History Since 1877	3	HISTORY 1100 or HISTORY 1200 or HISTORY 1300 or HISTORY 1310
ECO 120 or ECO 110	Principles of Microeconomics or Principles of Macroeconomics	3	ECON 1100 or ECON 1200
Literature	Literature Elective Any literature with prerequisite of no more than English Composition I.	3	Literature
UL Literature	Upper Level Literature Elective	3	UL Literature
Humanities	Any philosophy, fine art, literature, foreign language	3	Humanities
	Group 2 Emphasis/Focus Area Requirements	35	Group 2 Emphasis/Focus Area Requirements
	Group 1 Core Requirements	27	Group 1 Core Requirements
	Total Hours	62	Total Hours*
			59
*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

St. Charles Community College		Semester	Missouri S&T	
BIO 105, 106* or BIO 150* or CHM 115* or PHY 150* or PHY 250* or PHY 130, 131* or PHY 125	Essentials of Biology and Lab* (4) or General Biology: Cells to Organisms* (5) or General Chemistry I* (5) or General Physics I* or Engineering Physics I* (5) or Astronomy (3) and Lab* (1) or Intro to Physical Geology (3) or higher science lecture *Lab satisfies science lab requirement below.	6	BIO SCI 1113, 1219* or BIO SCI 1213, 1219* CHEM 1310, 1319* or PHYSICS 1145* or PHYSICS 1135* or PHYSICS 1505, 1509* or GEOLOGY 1110*	General Biology (3) and Lab* (1) or Principles of Biology (3) and Lab* (1) General Chemistry I (4) and Lab* (1) or College Physics I* (4) or Engineering Physics* (4) 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.
MAT 121	Intermediate Algebra	4	MATH 1103	Fundamentals of Algebra
MAT 158	College Algebra	4	MATH 1140	College Algebra
MAT 180	Calculus and Analytic Geometry I	5	MATH 1214	Calculus I
MAT 230 or MAT 210	Calculus and Analytic Geometry II (5) or Survey Calculus (4)	4	MATH 1215 or MATH 1212	Calculus II (4) or Survey of Calculus (4)
CPT 185 or CPT 189 or CPT 182	C# Programming (3) or Computer Science II with Java (3) or Computer Science II with C++ (3)	3	CS 1500 or CS 1500 or CS 1570*	Computational Problem Solving or Computational Problem Solving or Intro to Programming (C++)* *Department will substitute for this requirement.
MAT 157 or MAT 175	College Statistics-General Education or Introductory Statistics	3	STAT 1115	Statistics for the Social Sciences I
ART 1001 or MUS 111 or THE 122	Art Appreciation or Music Appreciation or Intro to the Theatre	3	ART 1180 or MUSIC 1150 or THEATRE 1190	Art Appreciation or Music Appreciation or Theatre via Video
HIS 145 or HIS 146 or HIS 101 or HIS 102	Western Civ: Ancient and Medieval Heritage or Western Civ: Modern European Heritage or US History to 1877 or US 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
ECO 120 or ECO 110	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	45		Group 2 Emphasis/Focus Area Requirements
	Group 1 Core Requirements	27		Group 1 Core Requirements
	Total Hours	72		Total Hours*
				67
*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

St. Charles Community College			Semester	Missouri S&T	
BIO 105, 106 or BIO 150	Essentials of Biology and Lab (4) or General Biology: Cells to Organisms (5)	4	BIO SCI 1113, 1219 or BIO SCI 1213*, 1219	General Biology and Lab or Principles of Biology and Lab *BIO SCI 1213 will be substituted for 1113.	4
BIO 122	Environmental Science	3	BIO SCI 1173	Intro to Environmental Sciences	3
PHY 125	Intro to Physical Geology	3	GEOLOGY 1110	Physical and Environmental Geology	3
PHY 130 or PHY 150	Astronomy or General Physics I	3	PHYSICS 1505 or PHYSICS 1145	Introductory Astronomy (3) or College Physics I (4) Satisfies the 3-hour science requirement. Any additional credit hours apply to degree totals as general elective credit.	3
CHM 115	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5
MAT 105 or MAT 155 or MAT 158 or MAT 157 or MAT 175	Applied Mathematics (3) or Contemporary College Math (4) or College Algebra-General Education or College Statistics-General Education (4) or Introductory Statistics (3) or higher math or statistics	4	MATH 1110 or MATH 1110 or MATH 1140 or STAT 1115 or STAT 1115	Mathematical Reasoning and Modeling or Mathematical Reasoning and Modeling or College Algebra or Statistics for the Social Sciences or Statistics for the Social Sciences or higher math or statistics	3
MAT 157 or MAT 175	College Statistics-General Education or Introductory Statistics	3	STAT 1115	Statistics for the Social Sciences I	3
ART 1001 or MUS 111 or THE 122	Art Appreciation or Music Appreciation or Intro to the Theatre	3	ART 1180 or MUSIC 1150 or THEATRE 1190	Art Appreciation or Music Appreciation or Theatre via Video	3
HIS 145 or HIS 146 or HIS 101 or HIS 102	Western Civ: Ancient and Medieval Heritage or Western Civ: Modern European Heritage or US History to 1877 or US 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
ECO 120 or ECO 110	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	37		Group 2 Emphasis/Focus Area Requirements	36
	Group 1 Core Requirements	27		Group 1 Core Requirements	25
	Total Hours	64		Total Hours*	61
*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

<u>St. Charles Community College</u>		<u>Semester</u>	<u>Missouri S&T</u>	
MAT 105 or MAT 155 or MAT 158 or MAT 157 or MAT 175	Applied Mathematics (3) or Contemporary College Math (4) or College Algebra-General Education or College Statistics-General Education (4) or Introductory Statistics (3) or higher math or statistics	4	MATH 1110 or MATH 1110 or MATH 1140 or STAT 1115 or STAT 1115	Mathematical Reasoning and Modeling or Mathematical Reasoning and Modeling or College Algebra or Statistics for the Social Sciences or Statistics for the Social Sciences or higher math or statistics
BIO 105, 106* or BIO 150* or CHM 115* or PHY 150* or PHY 250* or PHY 130, 131* or PHY 125	Essentials of Biology and Lab* (4) or General Biology: Cells to Organisms* (5) or General Chemistry I* (5) or General Physics I* or Engineering Physics I* (5) or Astronomy (3) and Lab* (1) or Intro to Physical Geology (3) or higher science lecture *Lab satisfies science lab requirement below.	6	BIO SCI 1113, 1219* or BIO SCI 1213, 1219* CHEM 1310, 1319* or PHYSICS 1145* or PHYSICS 1135* or PHYSICS 1505, 1509* or GEOLOGY 1110*	General Biology (3) and Lab* (1) or Principles of Biology (3) and Lab* (1) General Chemistry I (4) and Lab* (1) or College Physics I* (4) or Engineering Physics*(4) 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.
CPT 185 or CPT 189 or CPT 182	C# Programming (3) or Computer Science II with Java (3) or Computer Science II with C++ (3)	3	CS 1500 or CS 1500 or CS 1570*	Computational Problem Solving or Computational Problem Solving or Intro to Programming (C++)* *Department will substitute for this requirement.
GEO 110	Geography for Educators	3	HISTORY 2110	World Regional Geography
HIS 145 or HIS 146	Western Civ: Ancient and Medieval Heritage or Western Civ: Modern European Heritage	3	HISTORY 1100 or HISTORY 1200	Early Western Civilization or Modern Western Civilization
HIS 101 or HIS 102	US History to 1877 or US History Since 1877	3	HISTORY 1300 or HISTORY 1310	American History to 1877 or American History since 1877
ART 1001 or MUS 111 or THE 122	Art Appreciation or Music Appreciation or Intro to the Theatre	3	ART 1180 or MUSIC 1150 or THEATRE 1190	Art Appreciation or Music Appreciation or Theatre via Video
ECO 120 or ECO 110	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	31		Group 2 Emphasis/Focus Area Requirements
	Group 1 Core Requirements	27		Group 1 Core Requirements
	Total Hours	58		Total Hours*
				56
*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

St. Charles Community College			Semester	Missouri S&T		
ART 1400	Drawing I	3	Select 6 hours from at least 2 disciplines.	ART 1120	Drawing I	3
Art 2400	Painting I	3		ART 1140	Painting I	3
ART 2600	Sculpture I	3		ART 1164	Sculpture	3
ART 1001	Art Appreciation	3		ART 1180	Art Appreciation	3
BIO 105, 106* or	Essentials of Biology and Lab* (4) or	6		BIO SCI 1113, 1219* or	General Biology (3) and Lab* (1) or	6
BIO 150* or	General Biology: Cells to Organisms* (5) or			BIO SCI 1213, 1219*	Principles of Biology (3) and Lab* (1)	
CHM 115* or	General Chemistry I* (5) or			CHEM 1310, 1319* or	General Chemistry I (4) and Lab* (1) or	
PHY 150* or	General Physics I* or			PHYSICS 1145* or	College Physics I* (4) or	
PHY 250* or	Engineering Physics I* (5) or			PHYSICS 1135* or	Engineering Physics*(4) or	
PHY 130, 131* or	Astronomy (3) and Lab* (1) or			PHYSICS 1505, 1509* or	Introductory Astronomy (3) and Lab* (1) or	
PHY 125	Intro to Physical Geology (3) or higher science lecture		GEOLOGY 1110*	Physical and Environmental Geology* (3) or higher science lecture		
	*Lab satisfies science lab requirement below.			*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	
MAT 105 or	Applied Mathematics (3) or	4	MATH 1110 or	Mathematical Reasoning and Modeling or	3	
MAT 155 or	Contemporary College Math (4) or		MATH 1110 or	Mathematical Reasoning and Modeling or		
MAT 158 or	College Algebra-General Education or		MATH 1140 or	College Algebra or		
MAT 157 or	College Statistics-General Education (4) or		STAT 1115 or	Statistics for the Social Sciences or		
MAT 175	Introductory Statistics (3) or higher math or statistics		STAT 1115	Statistics for the Social Sciences or higher math or statistics		
LIT 250 or	English Literature Before 1800 or	3	ENGLISH 1211 or	British Literature I: The Beginnings to 1800 or	3	
LIT 260 or	English Literature After 1800 or		ENGLISH 1212 or	British Literature II: 1800 to Present		
LIT 210 or	American Literature From Beginnings-1865 or		ENGLISH 1221 or	American Literature: 1600 to 1865 or		
LIT 220 or	American Literature From 1865-Present or		ENGLISH 1222 or	American Literature: 1865 to Present or		
LIT 272 or	World Literature-Ancient World thru Renaissance or		ENGLISH 1231 or	World Literature I: Beginnings to the Renaissance or		
HIS 101* or	US History to 1877* or		HISTORY 1300* or	American History to 1877* or		
HIS 102* or	US History Since 1877* or		HISTORY 1310* or	American History Since 1877* or		
MUS 111 or	Music Appreciation or		MUSIC 1150 or	Music Appreciation or		
THE 122 or	Intro to the Theatre or	THEATRE 1190 or	Theatre via Video or			
Literature	Any literature with prerequisite of no more than English Composition I		Literature	Any literature with prerequisite of no more than ENGLISH 1120.		
	*Satisfies the State of Missouri government requirement.			*Satisfies the State of Missouri government requirement.		
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	17		Group 2 Emphasis/Focus Area Requirements	16	
	Group 1 Core Requirements	27		Group 1 Core Requirements	25	
	Total Hours	44		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

St. Charles Community College			Semester	Missouri S&T		
BUS 201	Principles of Management	3	Select 6 hours from at least 2 disciplines.	BUS 1110	Intro to Management and Entrepreneurship	3
BUS 246	Legal Environment of Business	3		BUS 2910	Business Law	3
CPT 185	C# Programming	3		IST 1551	Implement Info Systems: User Perspective	3
IT 170	Security Fundamentals	3		IST 3333	Data Networks and Information Security	3
BIO 105, 106* or BIO 150* or CHM 115* or PHY 150* or PHY 250* or PHY 130, 131* or PHY 125	Essentials of Biology and Lab* (4) or General Biology: Cells to Organisms* (5) or General Chemistry I* (5) or General Physics I* or Engineering Physics I* (5) or Astronomy (3) and Lab* (1) or Intro to Physical Geology (3) or higher science lecture *Lab satisfies science lab requirement below.	6		BIO SCI 1113, 1219* or BIO SCI 1213, 1219* CHEM 1310, 1319* or PHYSICS 1145* or PHYSICS 1135* or PHYSICS 1505, 1509* or GEOLOGY 1110*	General Biology (3) and Lab* (1) or Principles of Biology (3) and Lab* (1) General Chemistry I (4) and Lab* (1) or College Physics I* (4) or Engineering Physics*(4) 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
LIT 250 or LIT 260 or LIT 210 or LIT 220 or LIT 272 or HIS 101* or HIS 102* or ART 1001 or MUS 111 or THE 122 or Literature	English Literature Before 1800 or English Literature After 1800 or American Literature From Beginnings-1865 or American Literature From 1865-Present or World Literature-Ancient World thru Renaissance or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Intro to the 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
MAT 105 or MAT 155 or MAT 158 or MAT 157 or MAT 175	Applied Mathematics (3) or Contemporary College Math (4) or College Algebra-General Education or College Statistics-General Education (4) or Introductory Statistics (3) or higher math or statistics	4		MATH 1110 or MATH 1110 or MATH 1140 or STAT 1115 or STAT 1115	Mathematical Reasoning and Modeling or Mathematical Reasoning and Modeling or College Algebra or Statistics for the Social Sciences or Statistics for the Social Sciences or higher math or statistics	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		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 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

St. Charles Community College			Semester	Missouri S&T		
BIO 105, 106 or BIO 150	Essentials of Biology and Lab (4) or General Biology: Cells to Organisms (5)	4		BIO SCI 1113, 1219 or BIO SCI 1213*, 1219	General Biology and Lab or Principles of Biology and Lab *BIO SCI 1213 will be substituted for 1113.	4
BIO 151	General Biology: Organisms to Environment	5		BIO SCI 1223, 1229	Biodiversity and Lab	4
BIO 122	Environmental Science	3		BIO SCI 1173	Intro to Environmental Sciences	3
CHM 115	General Chemistry I and Lab	5		CHEM 1310, 1319	General Chemistry I and Lab	5
PHY 125	Intro to Physical Geology	3		GEOLOGY 1110	Physical and Environmental Geology	3
PHY 130	Astronomy	3		PHYSICS 1505	Introductory Astronomy	3
PHY 150	General Physics I	5		PHYSICS 1145	College Physics I	4
MAT 105 or MAT 155 or MAT 158 or MAT 157 or MAT 175	Applied Mathematics (3) or Contemporary College Math (4) or College Algebra-General Education or College Statistics-General Education (4) or Introductory Statistics (3) or higher math or statistics	4		MATH 1110 or MATH 1110 or MATH 1140 or STAT 1115 or STAT 1115	Mathematical Reasoning and Modeling or Mathematical Reasoning and Modeling or College Algebra or Statistics for the Social Sciences or Statistics for the Social Sciences or higher math or statistics	3
LIT 250 or LIT 260 or LIT 210 or LIT 220 or LIT 272 or HIS 101* or HIS 102* or ART 1001 or MUS 111 or THE 122 or Literature	English Literature Before 1800 or English Literature After 1800 or American Literature From Beginnings-1865 or American Literature From 1865-Present or World Literature-Ancient World thru Renaissance or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Intro to the 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	38			Group 2 Emphasis/Focus Area Requirements	35
	Group 1 Core Requirements	27			Group 1 Core Requirements	25
	Total Hours	65				Total Hours*
						*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

<u>St. Charles Community College</u>			<u>Semester</u>	<u>Missouri S&T</u>		
SPN 101	Spanish Language and Culture I	4	Select 6 hours from at least 2 disciplines.	SPANISH 1101	Elementary Spanish I	3
SPN 102	Spanish Language and Culture II	4		SPANISH 1102	Elementary Spanish II	3
SP 202	Spanish Conversation and Composition	4		SPANISH 2110	Basic Spanish Conversation	3
MAT 105 or	Applied Mathematics (3) or	4		MATH 1110 or	Mathematical Reasoning and Modeling or	3
MAT 155 or	Contemporary College Math (4) or			MATH 1110 or	Mathematical Reasoning and Modeling or	
MAT 158 or	College Algebra-General Education or			MATH 1140 or	College Algebra or	
MAT 157 or	College Statistics-General Education (4) or			STAT 1115 or	Statistics for the Social Sciences or	
MAT 175	Introductory Statistics (3) or higher math or statistics			STAT 1115	Statistics for the Social Sciences or higher math or statistics	
BIO 105, 106* or	Essentials of Biology and Lab* (4) or	6		BIO SCI 1113, 1219* or	General Biology (3) and Lab* (1) or	6
BIO 150* or	General Biology: Cells to Organisms* (5) or			BIO SCI 1213, 1219*	Principles of Biology (3) and Lab* (1)	
CHM 115* or	General Chemistry I* (5) or		CHEM 1310, 1319* or	General Chemistry I (4) and Lab* (1) or		
PHY 150* or	General Physics I* or		PHYSICS 1145* or	College Physics I* (4) or		
PHY 250* or	Engineering Physics I* (5) or		PHYSICS 1135* or	Engineering Physics*(4) or		
PHY 130, 131* or	Astronomy (3) and Lab* (1) or		PHYSICS 1505, 1509* or	Introductory Astronomy (3) and Lab* (1) or		
PHY 125	Intro to Physical Geology (3) 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	
LIT 250 or	English Literature Before 1800 or	Select 6 hours from at least 2 disciplines.	ENGLISH 1211 or	British Literature I: The Beginnings to 1800 or	6	
LIT 260 or	English Literature After 1800 or		ENGLISH 1212 or	British Literature II: 1800 to Present		
LIT 210 or	American Literature From Beginnings-1865 or		ENGLISH 1221 or	American Literature: 1600 to 1865 or		
LIT 220 or	American Literature From 1865-Present or		ENGLISH 1222 or	American Literature: 1865 to Present or		
LIT 272 or	World Literature-Ancient World thru Renaissance or		ENGLISH 1231 or	World Literature I: Beginnings to the Renaissance or		
HIS 101* or	US History to 1877* or		HISTORY 1300* or	American History to 1877* or		
HIS 102* or	US History Since 1877* or		HISTORY 1310* or	American History Since 1877* or		
ART 1001 or	Art Appreciation or		ART 1180 or	Art Appreciation or		
MUS 111 or	Music Appreciation or		MUSIC 1150 or	Music Appreciation or		
THE 122 or	Intro to the 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.		
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.						
Professional Requirements for Teacher Education Program: Please view all program requirements at https://teachereducation.mst.edu/secondaryeducation/ .						