

# State Fair Community College — Missouri S&T

## General Engineering Transfer Guide

Effective as of Fall 2023

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

### Group 1 - Core Requirements: All Majors Take All Courses

Engineering students take all Group 1 - Core Requirements and Group 2 - Major Requirements for major of choice. Math prerequisites: While they are not part of Missouri S&T engineering degree requirements, algebra and trigonometry skills are critical to success in calculus. To prepare for entry into calculus, students should follow math placement testing and advising recommendations at their college.

<u>State Fair Community College</u>			<u>Semester</u>	<u>Missouri S&amp;T</u>			
MATH 130	Calculus and Analytic Geometry I	5		MATH 1214	Calculus I	4	
MATH 131	Calculus and Analytic Geometry II	5		MATH 1215	Calculus II	4	
MATH 132	Calculus and Analytic Geometry III	5		MATH 2222	Calculus III	4	
MATH 134	Differential Equations	3		MATH 3304	Elementary Differential Equations	3	
PHYS 118	General Physics I with Lab	5		PHYSICS 1135	Engineering Physics I	4	
PHYS 119	General Physics II with Lab	5		PHYSICS 2135	Engineering Physics II	4	
CHEM 123	General Chemistry I with Lab	5		CHEM 1310, 1319	General Chemistry I and Lab	5	
ENGL 101	English Composition I	3		ENGLISH 1120	Exposition and Argumentation	3	
ECON 102 or	Principles of Microeconomics or	3		ECON 1100 or	Principles of Microeconomics or	3	
ECON 101	Principles of Macroeconomics	3		ECON 1200	Principles of Macroeconomics	3	
Total Hours			39	Total Hours			34

### Group 2 - Major Requirements: Take All Courses for Major of Choice

Engineering students take all Group 1 - Core Requirements (above) and Group 2 - Major Requirements for chosen major from list below. See course requirements on following pages.

**Aerospace Engineering**  
**Architectural Engineering**  
**Ceramic Engineering**  
**Chemical Engineering**  
**Chemical Engineering/Biochemistry Emphasis**  
**Civil Engineering**  
**Computer Engineering**  
**Electrical Engineering**

**Engineering Management**  
**Environmental Engineering**  
**Geological Engineering**  
**Mechanical Engineering**  
**Metallurgical Engineering**  
**Mining Engineering**  
**Nuclear Engineering**  
**Petroleum Engineering**

Engineering Major Requirements are detailed on the following pages.

**Free Electives:** Some programs allow Free Electives as indicated within each major. Free Electives should be selected in consultation with your advisor and may not include remedial/deficiency courses, algebra, trigonometry, pre-calculus, or extra credits in required courses.

**Humanities/Social Science (HSS) Electives:** HSS electives may include any art, English and technical communication, etymology, foreign language, music, philosophy, speech and media studies, or theatre. Your campus may have additional acceptable options. Consult with your advisor or email [transfer@mst.edu](mailto:transfer@mst.edu) with questions. See Missouri S&T online catalog at <https://catalog.mst.edu/undergraduate/degreeprogramsandcourses/> for more information.

## Aerospace Engineering Group 2 Major Requirements

<u>State Fair Community College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>	
HIST 109 or HIST 101 or HIST 102 or POLS 101	World Civilization After 1500 or US History Before 1877 or US History Since 1877 or American/National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government
ENGL 102 or COM 101 or ENGL 112	English Composition II or Public Speaking or Technical Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Principles of Speech or Technical Writing
PHYS 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics
LIT 112 or LIT 107 or LIT 109	World Literature or American Literature or British Literature (or other literature elective)	3	ENGLISH 1231 or ENGLISH 1221 or ENGLISH 1211	World Literature I or American Literature: 1600 to 1865 or British Literature I: The Beginnings to 1800 (or other literature elective)
	Ethics Elective Engineering, business, bio, social or other ethics approved by advisor.	3		Ethics Elective Engineering, business, bio, social or other ethics approved by advisor.
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives
	Group 2 Major Requirements	15		Group 2 Major Requirements
	Group 1 Core Requirements	39		Group 1 Core Requirements
	Total Hours	54		Total Hours*
				49

\*S&T advisor permission is required to transfer more than 68 credits toward the S&T Aerospace Engineering degree.

## Architectural Engineering Group 2 Major Requirements

<u>State Fair Community College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>	
HIST 109 (or HIST 101 or HIST 102)	World Civilization After 1500 (or US History Before 1877 or US History Since 1877) <small>*HIST 109 is preferred; 101 or 102 will also be accepted.</small>	3	HISTORY 1200* (or HISTORY 1300 or HISTORY 1310)	Modern Western Civilization* (or American History to 1877 or American History since 1877) <small>*HISTORY 1200 is preferred; 1300 or 1310 will also be accepted.</small>
PHYS 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics
HSS Elective	Humanities/Social Science Elective: history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language	3	HSS Elective	Humanities/Social Science Elective: history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language
EASC 118	Environmental Geology	3	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives
	Group 2 Major Requirements	12		Group 2 Major Requirements
	Group 1 Core Requirements	39		Group 1 Core Requirements
	Total Hours	51		Total Hours*
				46

\*S&T advisor permission is required to transfer more than 69 credits toward the S&T Architectural Engineering degree.

## Ceramic Engineering Group 2 Major Requirements

<u>State Fair Community College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>	
HIST 109 or HIST 101 or HIST 102 or POLS 101	World Civilization After 1500 or US History Before 1877 or US History Since 1877 or American/National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government
PHYS 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics
CHEM 221	Organic Chemistry I with Lab	5	CHEM 2310	Organic Chemistry I <small>(Will satisfy the advanced chemistry elective requirement.)</small>
CHEM 124	General Chemistry II with Lab	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2)* <small>Note: CHEM 1510 is not an S&amp;T degree requirement; course will transfer as elective credit.</small>
ENGL 102 or COM 101 or HSS Elective	English Composition II or Public Speaking or Humanities/Social Science Elective: history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language	3	ENGLISH 1160 or SPMS 1185 or HSS Elective	Writing and Research or Public Speaking or Humanities/Social Science Elective: history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language
	Humanities/Social Science Elective	3		Humanities/Social Science Elective
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives
	Group 2 Major Requirements	22		Group 2 Major Requirements
	Group 1 Core Requirements	39		Group 1 Core Requirements
	Total Hours	61		Total Hours*
				52

\*S&T advisor permission is required to transfer more than 68 credits toward the S&T Ceramic Engineering degree.

## Chemical Engineering Group 2 Major Requirements

<u>State Fair Community College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>	
ENGL 112	Technical Writing	3	ENGLISH 3560	Technical Writing
HIST 109 or HIST 101 or HIST 102 or POLS 101	World Civilization After 1500 or US History Before 1877 or US History Since 1877 or American/National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government
CHEM 124	General Chemistry II with Lab	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2)* <small>Note: CHEM 1510 is not an S&amp;T degree requirement; course will transfer as elective credit.</small>
CHEM 221	Organic Chemistry I with Lab	5	CHEM 2210, 2219*	Organic Chemistry I and Lab* <small>*The lab is not required for the degree, will transfer as 1 of the 9 required science elective credits /</small>
CHEM 222	Organic Chemistry II with Lab	5	CHEM 2220	Organic Chemistry II (3) <small>Will transfer as 3 of the 9 required science elective credits.</small>
CIS 120 or CIS155	Programming in Python or Programming in C#	3	CS 1500	Computational Problem Solving
COM 101	Public Speaking	3	SP&MS 1185	Principles of Speech
	Humanities/Social Science Elective	3		Humanities/Social Science Elective
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives
	Group 2 Major Requirements	30		Group 2 Major Requirements
	Group 1 Core Requirements	39		Group 1 Core Requirements
	Total Hours	69		Total Hours*
				59

\*S&T advisor permission is required to transfer more than 68 credits toward the S&T Chemical Engineering degree.

## Chemical Engineering - Biochemical Engineering Emphasis Group 2 Major Requirements

<u>State Fair Community College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 112	Technical Writing	3	ENGLISH 3560	Technical Writing	3
HIST 109 or HIST 101 or HIST 102 or POLS 101	World Civilization After 1500 or US History Before 1877 or US History Since 1877 or American/National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
CHEM 124	General Chemistry II with Lab	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2)* Note: CHEM 1510 is not an S&T degree requirement; course will transfer as elective credit.	3
CHEM 221	Organic Chemistry I with Lab	5	CHEM 2210, 2219*	Organic Chemistry I and Lab* *The lab is not required for the degree, will transfer as 1 of the 9 required science elective credits /	4
CHEM 222	Organic Chemistry II with Lab	5	CHEM 2220	Organic Chemistry II (3) Will transfer as 3 of the 9 required science elective credits.	3
CIS 120 or CIS155	Programming in Python or Programming in C#	3	CS 1500	Computational Problem Solving	3
COM 101	Public Speaking	3	SP&MS 1185	Principles of Speech	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	30		Group 2 Major Requirements	25
	Group 1 Core Requirements	39		Group 1 Core Requirements	34
	Total Hours	69		Total Hours*	59

\*S&T advisor permission is required to transfer more than 70 credits toward the S&T Chemical/Biochemical Engineering degree.

## Civil Engineering Group 2 Major Requirements

<u>State Fair Community College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 102 or COM 101 or ENGL 112	English Composition II or Public Speaking or Technical Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Public Speaking or Technical Writing	3
HIST 109 or HIST 101 or HIST 102 or POLS 101	World Civilization After 1500 or US History Before 1877 or US History Since 1877 or American/National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
EASC 118	Environmental Geology	3	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
PHYS 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	15		Group 2 Major Requirements	15
	Group 1 Core Requirements	39		Group 1 Core Requirements	34
	Total Hours	54		Total Hours*	49

\*S&T advisor permission is required to transfer more than 69 credits toward the S&T Civil Engineering degree.

## Computer Engineering Group 2 Major Requirements

<u>State Fair Community College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
COM 101	Public Speaking	3	SPMS 1185	Public Speaking	3
ENGL 102 or	English Composition II or		ENGLISH 1160 or	Writing and Research or	
ENGL 112	Technical Writing	3	ENGLISH 3560	Technical Writing	3
HIST 109 or	World Civilization After 1500 or		HISTORY 1200 or	Modern Western Civilization or	
HIST 101 or	US History Before 1877 or		HISTORY 1300 or	American History to 1877 or	
HIST 102 or	US History Since 1877 or	3	HISTORY 1310 or	American History since 1877 or	3
POLS 101	American/National Government		POL SCI 1200	American Government	
CIS 120 or	Programming in Python or		CS 1500	Computational Problem Solving	
CIS155	Programming in C#	3			3
PHYS 203 or	Statics or		CIV ENG 2200 or	Engineering Mechanics-Statics (3) or	
CHEM 221 or	Organic Chemistry I with Lab or	5	CHEM 2210 or	Organic Chemistry I (3) or	3
BIO 210	Principles of Genetics w/ Lab		BIO SCI 2223	General Genetics (3)	
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	Maximum Free Electives	3		Maximum Free Electives	3
	Group 2 Major Requirements	23		Group 2 Major Requirements	21
	Group 1 Core Requirements	39		Group 1 Core Requirements	34
	Total Hours	62		Total Hours*	55

\*S&T advisor permission is required to transfer more than 68 credits toward the S&T Computer Engineering degree.

## Electrical Engineering Group 2 Major Requirements

<u>State Fair Community College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
COM 101	Public Speaking	3	SPMS 1185	Public Speaking	3
ENGL 102 or	English Composition II or		ENGLISH 1160 or	Writing and Research or	
ENGL 112	Technical Writing	3	ENGLISH 3560	Technical Writing	3
HIST 109 or	World Civilization After 1500 or		HISTORY 1200 or	Modern Western Civilization or	
HIST 101 or	US History Before 1877 or		HISTORY 1300 or	American History to 1877 or	
HIST 102 or	US History Since 1877 or	3	HISTORY 1310 or	American History since 1877 or	3
POLS 101	American/National Government		POL SCI 1200	American Government	
CIS 120 or	Programming in Python or		CS 1500	Computational Problem Solving	
CIS155	Programming in C#	3			3
CHEM 221 or	Organic Chemistry I with Lab or		CHEM 2210 or	Organic Chemistry I (3) or	
BIO 210 or	Principles of Genetics w/ Lab or		BIO SCI 2223 or	General Genetics (3) or	
PHYS 203*	Statics* AND Dynamics (see note below)	5	CIV ENG 2200*	Engineering Mechanics-Statics* (see note below)	3
	*PHYS 250 combined with S&T MECH ENG 2350 will satisfy an Engineering Science Elective requirement. BOTH courses are required to satisfy this requirement.			*PHYS 250 combined with S&T MECH ENG 2350 will satisfy an Engineering Science Elective requirement. BOTH courses are required to satisfy this requirement.	
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	Maximum Free Electives	3		Maximum Free Electives	3
	Group 2 Major Requirements	23		Group 2 Major Requirements	21
	Group 1 Core Requirements	39		Group 1 Core Requirements	34
	Total Hours	62		Total Hours*	55

\*S&T advisor permission is required to transfer more than 68 credits toward the S&T Electrical Engineering degree.

## Engineering Management Group 2 Major Requirements

<u>State Fair Community College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
PSY 101	General Psychology	3	PSYCH 1101	General Psychology	3
HIST 109 or	World Civilization After 1500 or		HISTORY 1200 or	Modern Western Civilization or	
HIST 101 or	US History Before 1877 or	3	HISTORY 1300 or	American History to 1877 or	3
HIST 102 or	US History Since 1877 or		HISTORY 1310 or	American History since 1877 or	
POLS 101	American/National Government		POL SCI 1200	American Government	
COM 101	Public Speaking		SPMS 1185	Principles of Speech	3
ENGL 102 or	English Composition II or	3	ENGLISH 1160 or	Writing and Research or	3
ENGL 112	Technical Writing		ENGLISH 3560	Technical Writing	3
PHYS 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	Maximum Free Electives	3		Maximum Free Electives	3
	Group 2 Major Requirements	18		Group 2 Major Requirements	21
	Group 1 Core Requirements	39		Group 1 Core Requirements	34
	Total Hours	57		Total Hours*	55

\*S&T advisor permission is required to transfer more than 68 credits toward the S&T Engineering Management degree.

## Environmental Engineering Group 2 Major Requirements

<u>State Fair Community College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 102 or	English Composition II or		ENGLISH 1160 or	Writing and Research or	
COM 101 or	Public Speaking or	3	SPMS 1185 or	Public Speaking or	3
ENGL 112	Technical Writing		ENGLISH 3560	Technical Writing	
HIST 109 or	World Civilization After 1500 or		HISTORY 1200 or	Modern Western Civilization or	
HIST 101 or	US History Before 1877 or	3	HISTORY 1300 or	American History to 1877 or	3
HIST 102	US History Since 1877		HISTORY 1310	American History since 1877	
EASC 118	Environmental Geology	3	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
CHEM 124	General Chemistry II with Lab	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2)* <small>Note: CHEM 1510 is not an S&amp;T degree requirement; course will transfer as elective credit.</small>	3
BIO 112 or	Intro to Biology with Lab or			General Biology (3) and Lab* (1)	
BIO 125	Biology I with Lab	5	BIO SCI 1113, 1219*	<small>*BIO SCI 1219 is not an S&amp;T degree requirement; course will transfer as elective credit.</small>	3
PHYS 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	25		Group 2 Major Requirements	21
	Group 1 Core Requirements	39		Group 1 Core Requirements	34
	Total Hours	64		Total Hours*	55

\*S&T advisor permission is required to transfer more than 69 credits toward the S&T Environmental Engineering degree.

## Geological Engineering Group 2 Major Requirements

<u>State Fair Community College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 112	Technical Writing	3	ENGLISH 3560	Technical Writing	3
HIST 109 or HIST 101 or HIST 102 or POLS 101	World Civilization After 1500 or US History Before 1877 or US History Since 1877 or American/National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
EASC 118	Environmental Geology	3	GEO ENG 1150 (GEOLOGY 1110)	Physical and Environmental Geology	3
PHYS 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
BIO 112 or BIO 125 or CHEM 124 or CHEM 221	Intro to Biology with Lab or Biology I with Lab or General Chemistry II with Lab or Organic Chemistry I with Lab or any 3-hour course in chemistry, geochemistry, or biology.	5	BIO SCI 1113 or CHEM 1320 or CHEM 2210	General Biology or General Chemistry II or Organic Chemistry I or any 3-hour course in chemistry, geochemistry, or biology. Satisfies chemistry/geochemistry elective requirement.	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	23		Group 2 Major Requirements	21
	Group 1 Core Requirements	39		Group 1 Core Requirements	34
	Total Hours	62		Total Hours*	55

\*S&T advisor permission is required to transfer more than 68 credits toward the S&T Geological Engineering degree.

## Mechanical Engineering Group 2 Major Requirements

<u>State Fair Community College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
HIST 109 or HIST 101 or HIST 102 or POLS 101	World Civilization After 1500 or US History Before 1877 or US History Since 1877 or American/National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
ENGL 102 or COM 101 or ENGL 112	English Composition II or Public Speaking or Technical Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Principles of Speech or Technical Writing	3
PHYS 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
LIT 112 or LIT 107 or LIT 109	World Literature or American Literature or British Literature (or other literature elective)	3	ENGLISH 1231 or ENGLISH 1221 or ENGLISH 1211 or	World Literature I or American Literature: 1600 to 1865 or British Literature I: The Beginnings to 1800 (or other literature elective)	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	15		Group 2 Major Requirements	15
	Group 1 Core Requirements	39		Group 1 Core Requirements	34
	Total Hours	54		Total Hours*	49

\*S&T advisor permission is required to transfer more than 68 credits toward the S&T Mechanical Engineering degree.

## Metallurgical Engineering Group 2 Major Requirements

<u>State Fair Community College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>	
ENGL 102 or COM 101 or ENGL 112	English Composition II or Public Speaking or Technical Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Public Speaking or Technical Writing
HIST 109 or HIST 101 or HIST 102 or POLS 101	World Civilization After 1500 or US History Before 1877 or US History Since 1877 or American/National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government
PHYS 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics
CHEM 124	General Chemistry II with Lab	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2)* <small>Note: CHEM 1510 is not an S&amp;T degree requirement; course will transfer as elective credit.</small>
CHEM 221	Organic Chemistry I with Lab	5	CHEM 2210, 2219*	Organic Chemistry I (3) and Lab* (1) <small>CHEM 2210 is not specifically required for the degree but will satisfy Out-of-Department Technical Elective Requirement. *CHEM 2219 is not a degree requirement, transfers as general credit.</small>
	Humanities/Social Science Elective	3		Humanities/Social Science Elective
	Humanities/Social Science Elective	3		Humanities/Social Science Elective
	Maximum Free Electives	5		Maximum Free Electives
	Group 2 Major Requirements	30		Group 2 Major Requirements
	Group 1 Core Requirements	39		Group 1 Core Requirements
	Total Hours	69		Total Hours*
				59

\*S&T advisor permission is required to transfer more than 68 credits toward the S&T Metallurgical Engineering degree.

## Mining Engineering Group 2 Major Requirements

<u>State Fair Community College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>	
ENGL 102 or ENGL 112 or ENGL 110	English Composition II or Technical Writing or Communication for Business and Industry	3	ENGLISH 1160 or ENGLISH 3560 or ENGLISH 1600	Writing and Research or Technical Writing or Intro to Technical Communications
HIST 109 or HIST 101 or HIST 102 or POLS 101	World Civilization After 1500 or US History Before 1877 or US History Since 1877 or American/National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government
PHYS 203	Statics	3	CIV ENG 2200*	Engineering Mechanics-Statics
EASC 118	Environmental Geology	3	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology
	Humanities/Social Science Elective	3		Humanities/Social Science Elective
	Humanities/Social Science Elective	3		Humanities/Social Science Elective
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives
	Group 2 Major Requirements	18		Group 2 Major Requirements
	Group 1 Core Requirements	39		Group 1 Core Requirements
	Total Hours	57		Total Hours*
				52

\*S&T advisor permission is required to transfer more than 68 credits toward the S&T Mining Engineering degree.



## Nuclear Engineering Group 2 Major Requirements

<u>State Fair Community College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 102 or ENGL 112 or ENGL 110	English Composition II or Technical Writing or Communication for Business and Industry	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Public Speaking or Technical Writing	3
HIST 109 or HIST 101 or HIST 102 or POLS 101	World Civilization After 1500 or US History Before 1877 or US History Since 1877 or American/National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
PHYS 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	Maximum Free Electives	6		Maximum Free Electives	6
	Group 2 Major Requirements	21		Group 2 Major Requirements	21
	Group 1 Core Requirements	39		Group 1 Core Requirements	34
	Total Hours	60		Total Hours*	55

\*S&T advisor permission is required to transfer more than 68 credits toward the S&T Nuclear Engineering degree.

## Petroleum Engineering Group 2 Major Requirements

<u>State Fair Community College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 102 or ENGL 112 or ENGL 110	English Composition II or Technical Writing or Communication for Business and Industry	3	ENGLISH 3560 or ENGLISH 1160 or ENGLISH 1600	Technical Writing (preferred) or Writing and Research or Intro to Technical Communications	3
HIST 109 or HIST 101 or HIST 102 or POLS 101	World Civilization After 1500 or US History Before 1877 or US History Since 1877 or American/National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
EASC 118	Environmental Geology	3	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
PHYS 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	18		Group 2 Major Requirements	18
	Group 1 Core Requirements	39		Group 1 Core Requirements	34
	Total Hours	57		Total Hours*	52

\*S&T advisor permission is required to transfer more than 69 credits toward the S&T Petroleum Engineering degree.