

# Kaskaskia College — Missouri S&T

## General Engineering Transfer Guide

Effective as of Fall 2017

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>Kaskaskia College</u>			<u>Semester</u>	<u>Missouri S&amp;T</u>		
MATH 166	Calculus and Analytical Geometry I	5	MATH 1214	Calculus for Engineers I	Grade of C or better is required.	4
MATH 267	Calculus and Analytical Geometry II	4	MATH 1215	Calculus for Engineers II	Grade of C or better is required.	4
MATH 268	Calculus and Analytical Geometry III	4	MATH 2222	Calculus with Analytic Geometry III	Grade of C or better is required.	4
MATH 269	Differential Equations	3	MATH 3304	Elementary Differential Equations		3
PHYS 201	University Physics I	5	PHYSICS 1135	Engineering Physics I	Grade of C or better is required.	4
PHYS 202	University Physics II	5	PHYSICS 2135	Engineering Physics II	Grade of C or better is required.	4
CHEM 111	Chemistry I (Inorganic)	5	CHEM 1310, 1319	General Chemistry I and Lab		5
GEDR 103	General Engineering Drawing	4	MECH ENG 1720	Engineering Design with Computer Appl		3
ENGL 101	English Composition	3	ENGLISH 1120	Exposition and Argumentation		3
ECON 206 or ECON 205	Principles of Economics (Micro) or Principles of Economics (Macro)	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics		3
Total Hours			41			Total Hours 37

### 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 history, economics, political science, sociology, psychology, philosophy, fine art, literature, or foreign language. Missouri S&T approved HSS courses are listed at [ugs.mst.edu](http://ugs.mst.edu). Your campus may have additional acceptable options. Consult with your advisor or email [transfer@mst.edu](mailto:transfer@mst.edu) with questions.

## Aerospace Engineering Group 2 Major Requirements

<u>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
HIST 103 or HIST 104 or HIST 102 or POLS 101	History of the United States or History of the United States or Western Civilization or Political Science	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
ENGL 102 or SPCH 103 or TECR 137	English Composition II or Speech or Technical Report Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Principles of Speech or Technical Writing	3
MATH 210	Computer Programming for Engineers	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
PHYS 210	Electrical Circuit Analysis	4	EE 2800	Circuit Analysis I	3
PSCI 203	Analytical Mechanics (Statics)	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PSCI 205	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
MATH 236	Linear Algebra	3	MATH 3108	Linear Algebra I <small>(Will satisfy the Advanced Math/Comp Sci elective requirement.)</small>	3
	<i>See your advisor for course options.</i>			Literature Elective	3
	<i>See your advisor for course options.</i>			Ethics Elective	3
	<i>No free electives applied to the degree.</i>			Maximum Free Electives	0
	Group 2 Major Requirements	22		Group 2 Major Requirements	27
	Group 1 Core Requirements	41		Group 1 Core Requirements	37
	Total Hours	63		Total Hours*	64

\*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>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
HIST 102 or HIST 103 or HIST 104	Western Civilization or History of the United States or History of the United States	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>	3
PSCI 203	Analytical Mechanics (Statics)	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PSCI 204	Analytical Mechanics (Dynamics)	3	MECH ENG 2350	Engineering Mechanics-Dynamics	3
PSCI 205	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
ENGL 102 or SPCH 103	English Composition II or Speech	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	3
	Geology	4	GEOLOGY 1111	Intro to Physical Geology (or other chemistry, geology, biology, physics, or astronomy course that is not otherwise required for the degree) <span style="float: right;">Applies to</span>	3
PSCI 103				the degree as a basic science elective	
	<i>No free electives applied to the degree.</i>			Maximum Free Electives	0
	Group 2 Major Requirements	19		Group 2 Major Requirements	18
	Group 1 Core Requirements	41		Group 1 Core Requirements	37
	Total Hours	60		Total Hours*	55

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

## Ceramic Engineering Group 2 Major Requirements

<u>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
HIST 103 or HIST 104 or HIST 102 or POLS 101	History of the United States or History of the United States or Western Civilization or Political Science	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
PSCI 203	Analytical Mechanics (Statics)	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PSCI 205	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
CHEM 208	Organic Chemistry I	5	CHEM 2210/2219	Organic Chemistry I and Lab (Not a specific requirement. Will satisfy technical elective requirement.)	5
CHEM 112	Chemistry II (Physical and Analytical)	5	CHEM 1320	General Chemistry II	3
ENGL 102 or SPCH 103	English Composition II or Speech	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, Humanities/Social Science Elective	3
<i>See your advisor for course options.</i>				Maximum Free Electives	0
<i>No free electives applied to the degree.</i>					
Group 2 Major Requirements		22	Group 2 Major Requirements		23
Group 1 Core Requirements		41	Group 1 Core Requirements		37
Total Hours		63	Total Hours*		60

\*S&T advisor permission is required to transfer more than 60 credits toward the S&T Ceramic Engineering degree.

## Chemical Engineering Group 2 Major Requirements

<u>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 102 or TECR 137	English Composition II or Technical Report Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
HIST 103 or HIST 104 or HIST 102 or POLS 101	History of the United States or History of the United States or Western Civilization or Political Science	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
CHEM 112	Chemistry II (Physical and Analytical)	5	CHEM 1320	General Chemistry II	5
CHEM 208	Organic Chemistry I	5	CHEM 2210	Organic Chemistry I	3
CHEM 209	Organic Chemistry II	5	CHEM 2220	Organic Chemistry II (Will satisfy science elective requirement.)	3
MATH 210	Computer Programming for Engineers	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
<i>See your advisor for course options.</i>				Humanities/Social Science Elective	3
<i>See your advisor for course options.</i>				Humanities/Social Science Elective	3
<i>No free electives applied to the degree.</i>				Maximum Free Electives	0
Group 2 Major Requirements		24	Group 2 Major Requirements		26
Group 1 Core Requirements		41	Group 1 Core Requirements		37
Total Hours		65	Total Hours*		63

\*S&T advisor permission is required to transfer more than 63 credits toward the S&T Chemical Engineering degree.

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

<u>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 102 or TECR 137	English Composition II or Technical Report Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
HIST 103 or HIST 104 or HIST 102 or POLS 101	History of the United States or History of the United States or Western Civilization or Political Science	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
CHEM 112	Chemistry II (Physical and Analytical)	5	CHEM 1320	General Chemistry II	5
CHEM 208	Organic Chemistry I	5	CHEM 2210	Organic Chemistry I	3
CHEM 209	Organic Chemistry II	5	CHEM 2220	Organic Chemistry II (Will satisfy science elective requirement.)	3
MATH 210	Computer Programming for Engineers	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
<i>See your advisor for course options.</i>				Humanities/Social Science Elective	3
<i>See your advisor for course options.</i>				Humanities/Social Science Elective	3
<i>No free electives applied to the degree.</i>				Maximum Free Electives	0
Group 2 Major Requirements		24	Group 2 Major Requirements		26
Group 1 Core Requirements		41	Group 1 Core Requirements		37
Total Hours		65	Total Hours*		63

\*S&T advisor permission is required to transfer more than 71 credits toward the S&T Chemical/Biochemical Engineering degree.



## Civil Engineering Group 2 Major Requirements

<u>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 102 or SPCH 103 or TECR 137	English Composition II or Speech or Technical Report Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Public Speaking or Technical Writing	3
HIST 103 or HIST 104 or HIST 102 or POLS 101	History of the United States or History of the United States or Western Civilization or Political Science	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
PSCI 203	Analytical Mechanics (Statics)	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PSCI 204	Analytical Mechanics (Dynamics)	3	MECH ENG 2350	Engineering Mechanics-Dynamics	3
PSCI 205	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
<i>See your advisor for course options.</i>			Humanities/Social Science Elective		3
<i>No free electives applied to the degree.</i>			Maximum Free Electives		0
Group 2 Major Requirements		15	Group 2 Major Requirements		18
Group 1 Core Requirements		41	Group 1 Core Requirements		37
Total Hours		56	Total Hours*		55

\*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>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
SPCH 103	Speech	3	SPMS 1185	Public Speaking	3
ENGL 102 or TECR 137	English Composition II or Technical Report Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
HIST 103 or HIST 104 or HIST 102 or POLS 101	History of the United States or History of the United States or Western Civilization or Political Science	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
PSCI 203 and PSCI 204	Analytical Mechanics (Statics) and Analytical Mechanics (Dynamics)	3	CIV ENG 2200 and MECH ENG 2350	Engineering Mechanics-Statics and Engineering Mechanics-Dynamics <small>(Both courses combined will satisfy a required engineering science elective.)</small>	6
PHYS 210	Electrical Circuit Analysis	4	EE 2100**	Circuits I <small>**A passing grade on the Missouri S&amp;T EE Advancement Exam I is required to receive credit for EE 2100.</small>	3
MATH 236	Linear Algebra	3	MATH 3108	Linear Algebra <small>(Will satisfy a required math elective.)</small>	3
<i>See your advisor for course options.</i>			Humanities/Social Science Elective		3
<i>See your advisor for course options.</i>			Maximum Free Electives		3
Group 2 Major Requirements		19	Group 2 Major Requirements		27
Group 1 Core Requirements		41	Group 1 Core Requirements		37
Total Hours		60	Total Hours*		64

\*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>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
SPCH 103	Speech	3	SPMS 1185	Public Speaking	3
ENGL 102 or TECR 137	English Composition II or Technical Report Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
HIST 103 or HIST 104 or HIST 102 or POLS 101	History of the United States or History of the United States or Western Civilization or Political Science	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
PSCI 203 and PSCI 204	Analytical Mechanics (Statics) and Analytical Mechanics (Dynamics)	3	CIV ENG 2200 and MECH ENG 2350	Engineering Mechanics-Statics and Engineering Mechanics-Dynamics <small>(Both courses combined will satisfy a required engineering science elective.)</small>	6
PHYS 210	Electrical Circuit Analysis	4	EE 2100**	Circuits I <small>**A passing grade on the Missouri S&amp;T EE Advancement Exam I is required to receive credit for EE 2100.</small>	3
MATH 236	Linear Algebra	3	MATH 3108	Linear Algebra	3
<i>See your advisor for course options.</i>			Humanities/Social Science Elective		3
<i>See your advisor for course options.</i>			Maximum Free Electives		3
Group 2 Major Requirements		19	Group 2 Major Requirements		27
Group 1 Core Requirements		41	Group 1 Core Requirements		37
Total Hours		60	Total Hours*		64

\*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>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
PSYH 101	Psychology	3	PSYCH 1101	General Psychology	3
HIST 103 or	History of the United States or		HISTORY 1300 or	American History to 1877 or	
HIST 104 or	History of the United States or	3	HISTORY 1310 or	American History since 1877 or	3
HIST 102 or	Western Civilization or		HISTORY 1200 or	Modern Western Civilization or	
POLS 101	Political Science		POL SCI 1200	American Government	
ENGL 102 or	English Composition II or		ENGLISH 1160 or	Writing and Research or	
SPCH 103 or	Speech or	3	SPMS 1185 or	Principles of Speech or	3
TECR 137	Technical Report Writing		ENGLISH 3560	Technical Writing	
PHYS 210	Electrical Circuit Analysis	4	EE 2800	Circuit Analysis I	3
PSCI 203	Analytical Mechanics (Statics)	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PSCI 204	Analytical Mechanics (Dynamics)	3	MECH ENG 2350	Engineering Mechanics-Dynamics	3
PSCI 205	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
	<i>See your advisor for course options.</i>			Humanities/Social Science Elective	3
	<i>See your advisor for course options.</i>			Maximum Free Electives	3
Group 2 Major Requirements		22	Group 2 Major Requirements		27
Group 1 Core Requirements		41	Group 1 Core Requirements		37
Total Hours		63	Total Hours*		64

\*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>Kaskaskia 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	
SPCH 103 or	Speech or	3	SPMS 1185 or	Public Speaking or	3
TECR 137	Technical Report Writing		ENGLISH 3560	Technical Writing	
HIST 103 or	History of the United States or		HISTORY 1300 or	American History to 1877 (preferred) or	
HIST 104 or	History of the United States or	3	HISTORY 1310 or	American History since 1877 (preferred) or	3
HIST 102	Western Civilization		HISTORY 1200	Modern Western Civilization	
CHEM 112	Chemistry II (Physical and Analytical)	5	CHEM 1320	General Chemistry II	3
BIOL 101	Biology	4	BIO SCI 1113	General Biology	4
PSCI 203	Analytical Mechanics (Statics)	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PSCI 204	Analytical Mechanics (Dynamics)	3	MECH ENG 2350	Engineering Mechanics-Dynamics	3
PSCI 205	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
	<i>See your advisor for course options.</i>			Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>			Maximum Free Electives	0
Group 2 Major Requirements		24	Group 2 Major Requirements		25
Group 1 Core Requirements		41	Group 1 Core Requirements		37
Total Hours		65	Total Hours*		62

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

## Geological Engineering Group 2 Major Requirements

<u>Kaskaskia 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	
SPCH 103 or	Speech or	3	SPMS 1185 or	Public Speaking or	3
TECR 137	Technical Report Writing		ENGLISH 3560	Technical Writing	
HIST 103 or	History of the United States or		HISTORY 1300 or	American History to 1877 or	
HIST 104 or	History of the United States or	3	HISTORY 1310 or	American History since 1877 or	3
HIST 102 or	Western Civilization or		HISTORY 1200 or	Modern Western Civilization or	
POLS 101	Political Science		POL SCI 1200	American Government	
PSCI 203	Analytical Mechanics (Statics)	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PSCI 204	Analytical Mechanics (Dynamics)	3	MECH ENG 2350	Engineering Mechanics-Dynamics	3
PSCI 205	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
BIOL 101 or	Biology or		BIO SCI 1113 or	General Biology or	
CHEM 112 or	Chemistry II (Physical and Analytical) or	4	CHEM 1320 or	General Chemistry II or	
CHEM 208	Organic Chemistry I		CHEM 2210	Organic Chemistry I	
	<i>See your advisor for course options.</i>			<i>or any 3-hour course in chemistrv. geochemistrv. or biologv</i>	
	<i>See your advisor for course options.</i>			Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>			Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>			Maximum Free Electives	0
Group 2 Major Requirements		19	Group 2 Major Requirements		21
Group 1 Core Requirements		41	Group 1 Core Requirements		37
Total Hours		60	Total Hours*		58

\*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>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
HIST 103 or HIST 104 or HIST 102 or POL S 101	History of the United States or History of the United States or Western Civilization or Political Science	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
ENGL 102 or SPCH 103 or TECR 137	English Composition II or Speech or Technical Report Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Principles of Speech or Technical Writing	3
				Literature Elective	3
				Humanities/Social Science Elective	3
				Maximum Free Electives	0
MATH 210	Computer Programming for Engineers	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	4
PHYS 210	Electrical Circuit Analysis	4	EE 2800	Circuit Analysis I	3
PSCI 203	Analytical Mechanics (Statics)	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PSCI 205	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
MATH 236	Linear Algebra	3	MATH 3108	Linear Algebra I <small>(Will satisfy the Advanced Math/Comp Sci elective requirement.)</small>	3
				Group 2 Major Requirements	18
				Group 1 Core Requirements	37
		Total Hours		Total Hours*	55
		13			
		41			
		54			

\*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>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 102 or SPCH 103 or TECR 137	English Composition II or Speech or Technical Report Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Public Speaking or Technical Writing	3
HIST 103 or HIST 104 or HIST 102 or POL S 101	History of the United States or History of the United States or Western Civilization or Political Science	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
PSCI 203	Analytical Mechanics (Statics)	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PSCI 205	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
CHEM 112	Chemistry II (Physical and Analytical)	5	CHEM 1320 CHEM 2210 or EE 2800	General Chemistry II Organic Chemistry I or Electrical Circuits <small>Not specifically required for the degree but will satisfy Out-of-Department Technical Elective Requirement</small>	3
CHEM 208 or PHYS 210	Organic Chemistry I or Electrical Circuit Analysis	4		Humanities/Social Science Elective	3
				Humanities/Social Science Elective	3
				Maximum Free Electives	5
				Group 2 Major Requirements	29
				Group 1 Core Requirements	37
		Total Hours		Total Hours*	66
		21			
		41			
		62			

\*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>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 102 or TECR 137	English Composition II or Technical Report Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
HIST 103 or HIST 104 or HIST 102 or POLS 101	History of the United States or History of the United States or Western Civilization or Political Science	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
PSCI 203	Analytical Mechanics (Statics)	3	CIV ENG 2200*	Engineering Mechanics-Statics	3
PSCI 204	Analytical Mechanics (Dynamics)	3	MECH ENG 2350*	Engineering Mechanics-Dynamics	3
PSCI 205	Mechanics of Materials	3	CIV ENG 2210*	Mechanics of Materials	3
			*The combination of CIV ENG 2200 and MECH ENG 2350 will be substituted for MECH ENG 2340. The Combination of CIV ENG 22000 and 2210 and MECH ENG 2350 will be substituted for MI ENG 3812		
				Humanities/Social Science Elective	3
				Humanities/Social Science Elective	3
				Maximum Free Electives	0
Group 2 Major Requirements		15	Group 2 Major Requirements		21
Group 1 Core Requirements		41	Group 1 Core Requirements		37
Total Hours		56	Total Hours*		58

\*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>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 102 or TECR 137	English Composition II or Technical Report Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
HIST 103 or HIST 104 or HIST 102 or POLS 101	History of the United States or History of the United States or Western Civilization or Political Science	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
					3
MATH 210	Computer Programming for Engineers	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	4
PSCI 203	Analytical Mechanics (Statics)	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PSCI 205	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
				Humanities/Social Science Elective	3
				Humanities/Social Science Elective	3
				Maximum Free Electives	6
Group 2 Major Requirements		15	Group 2 Major Requirements		24
Group 1 Core Requirements		41	Group 1 Core Requirements		37
Total Hours		56	Total Hours*		61

\*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>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 102 or TECR 137	English Composition II or Technical Report Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
HIST 103 or HIST 104 or HIST 102 or POLS 101	History of the United States or History of the United States or Western Civilization or Political Science	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
PSCI 203	Analytical Mechanics (Statics)	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PSCI 204	Analytical Mechanics (Dynamics)	3	MECH ENG 2350	Engineering Mechanics-Dynamics	3
PSCI 205	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
				Humanities/Social Science Elective	3
				Humanities/Social Science Elective	3
				Maximum Free Electives	0
Group 2 Major Requirements		9	Group 2 Major Requirements		15
Group 1 Core Requirements		41	Group 1 Core Requirements		37
Total Hours		50	Total Hours*		52

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