

# Kaskaskia College — Missouri S&T

## General Engineering Transfer Guide

Effective as of Fall 2021

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	
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			37	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 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>		
GEDR 103	General Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	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
ENGL 102 or SPCH 103	English Composition or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
MATH 210	Computer Programming for Engineers	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
PHYS 210	Electrical Circuit Analysis	3	EE 2800	Circuit Analysis I	3
PSCI 203	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
	Literature Elective	3		Literature Elective	3
	Ethics Elective	3		Ethics 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	30
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	67		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>		
GEDR 103	General Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
HIST 102 (or HIST 103 or HIST 104)	Western Civilization (or History of the United States or History of the United States) <small>*HIST 102 is preferred; 103 or 104 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>	3
PSCI 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PSCI 204	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 or HSS Elective	English Composition or Fundamentals of Speech 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	3
PSCI 103	Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	22		Group 2 Major Requirements	21
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	59		Total Hours*	55

\*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>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
GEDR 103	General Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	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	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	Organic Chemistry I (Not a specific requirement. Will satisfy the advanced chemistry elective requirement.)	3
CHEM 112	Chemistry II (Physical and Analytical)	5	CHEM 1320	General Chemistry II	3
ENGL 102 or SPCH 103 or HSS Elective	English Composition or Fundamentals of Speech 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	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	28		Group 2 Major Requirements	24
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	65		Total Hours*	58

\*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>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
GEDR 103	General Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENGL 102	English Composition	3	ENGLISH 1160	Writing and Research	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	3
CHEM 208	Organic Chemistry I	5	CHEM 2210, 2219	Organic Chemistry I and Lab	4
CHEM 209 or BIOL 215 or CHEM 210	Organic Chemistry II (5) or Microbiology (4) or Biochemistry (5) (Will satisfy science elective requirement. Select up to 8 hours from these options.)	8	CHEM 2220 or BIO SCI 3313, 3319 or CHEM 4610	Organic Chemistry II (3) or Microbiology and Lab (5) or General Biochemistry (Will satisfy science elective requirement. Select up to 8 hours from these options.)	8
MATH 210	Computer Programming for Engineers	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
SPCH 103	Fundamentals of Speech	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	36		Group 2 Major Requirements	33
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	73		Total Hours*	67

\*S&T advisor permission is required to transfer more than 69 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>		
GEDR 103	General Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENGL 102	English Composition	3	ENGLISH 1160	Writing and Research	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	3
CHEM 208	Organic Chemistry I	5	CHEM 2210, 2219	Organic Chemistry I and Lab	4
CHEM 209 or BIOL 215 or CHEM 210	Organic Chemistry II (5) or Microbiology (4) or Biochemistry (5) <small>(Will satisfy science elective requirement. Select up to 8 hours from these options.)</small>	8	CHEM 2220 or BIO SCI 3313, 3319 or CHEM 4610	Organic Chemistry II (3) or Microbiology and Lab (5) or General Biochemistry <small>(Will satisfy science elective requirement. Select up to 8 hours from these options.)</small>	8
MATH 210	Computer Programming for Engineers	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
SPCH 103	Fundamentals of Speech	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	36		Group 2 Major Requirements	33
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	73		Total Hours*	67

\*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>		
GEDR 103	General Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENGL 102 or SPCH 103	English Composition or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	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 103	Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
PSCI 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PSCI 204	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
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	25		Group 2 Major Requirements	24
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	62		Total Hours*	58

\*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	Fundamentals of Speech	3	SPMS 1185	Public Speaking	3
ENGL 102	English Composition	3	ENGLISH 1160	Writing and Research	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
MATH 210	Computer Programming for Engineers	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
PSCI 203 and PSCI 204 (BOTH of the courses above or ONE course below.) OR CHEM 208	Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (3) (Both courses above combined or the following course will satisfy a required engineering science elective.) OR Organic Chemistry I (5)	6	CIV ENG 2200 and MECH ENG 2350 (BOTH of the courses above or ONE course below.) OR CHEM 2210	Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (3) (Both courses above combined or the following course will satisfy a required engineering science elective.) OR Organic Chemistry I (4) o	3
PHYS 210	Electrical Circuit Analysis	4	EE 2100**	Circuits I **A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for EE 2100.	3
MATH 236	Linear Algebra	3	MATH 3108	Linear Algebra (Will satisfy a required math elective.)	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>See your advisor for course options.</i>	0		Maximum Free Electives	3
	Group 2 Major Requirements	28		Group 2 Major Requirements	27
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	65		Total Hours*	61

\*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>		
GEDR 103	General Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
SPCH 103	Fundamentals of Speech	3	SPMS 1185	Public Speaking	3
ENGL 102	English Composition	3	ENGLISH 1160	Writing and Research	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 (BOTH of the courses above or ONE course below.) OR CHEM 208	Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (3) (Both courses above combined or the following course will satisfy a required engineering science elective.) OR Organic Chemistry I (5)	6	CIV ENG 2200 and MECH ENG 2350 (BOTH of the courses above or ONE course below.) OR CHEM 2210	Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (3) (Both courses above combined or the following course will satisfy a required engineering science elective.) OR Organic Chemistry I (4) o	3
PHYS 210	Electrical Circuit Analysis	4	EE 2100**	Circuits I **A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for EE 2100.	3
MATH 236	Linear Algebra	3	MATH 3108	Linear Algebra	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>See your advisor for course options.</i>	3		Maximum Free Electives	3
	Group 2 Major Requirements	31		Group 2 Major Requirements	27
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	68		Total Hours*	61

\*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

Kaskaskia College		Semester	Missouri S&T		
GEDR 103	General Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
PSYH 101	Psychology	3	PSYCH 1101	General Psychology	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
ENGL 102 or SPCH 103	English Composition or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	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	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PSCI 204	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
	<i>See your advisor for course options.</i>	3		Maximum Free Electives	3
	Group 2 Major Requirements	34		Group 2 Major Requirements	33
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	71		Total Hours*	67

\*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

Kaskaskia College		Semester	Missouri S&T		
GEDR 103	General Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENGL 102 or SPCH 103	English Composition or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
HIST 103 or HIST 104 or HIST 102	History of the United States or History of the United States or Western Civilization	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200	American History to 1877 or American History since 1877 or Modern Western Civilization	3
PSCI 103	Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
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	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PSCI 204	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
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	34		Group 2 Major Requirements	31
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	71		Total Hours*	65

\*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>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
GEDR 103	General Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENGL 102 or SPCH 103	English Composition or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	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 103	Geology	4	GEO ENG 1150 (GEOLOGY 1110)	Physical and Environmental Geology	3
PSCI 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PSCI 204	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 CHEM 112 or CHEM 208	Biology or Chemistry II (Physical and Analytical) or Organic Chemistry I	4	BIO SCI 1113 or CHEM 1320 or CHEM 2210	General Biology or General Chemistry II or Organic Chemistry I <small>or any 3-hour course in chemistry, geochemistry, or biology. Satisfies chemistry/geochemistry elective requirement.</small>	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	32		Group 2 Major Requirements	30
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	69		Total Hours*	64

\*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>		
GEDR 103	General Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	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
ENGL 102 or SPCH 103	English Composition or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
MATH 210	Computer Programming for Engineers	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
PHYS 210	Electrical Circuit Analysis	3	EE 2800	Circuit Analysis I	3
PSCI 203	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
	Literature Elective	3		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	30		Group 2 Major Requirements	30
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	67		Total Hours*	64

\*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>		
GEDR 103	General Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENGL 102 or SPCH 103	English Composition or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	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	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	General Chemistry II	3
CHEM 208 or PHYS 210	Organic Chemistry I or Electrical Circuit Analysis	4	CHEM 2210 or EE 2800	Organic Chemistry I (4) or Electrical Circuits (3)	3
	Humanities/Social Science Elective	3		<i>Not specifically required for the degree but will satisfy Out-of-Department Technical Elective Requirement.</i>	
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>See your advisor for course options.</i>	5		Maximum Free Electives	5
	Group 2 Major Requirements	35		Group 2 Major Requirements	32
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	72		Total Hours*	66

\*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>		
GEDR 103	General Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENGL 102	English Composition	3	ENGLISH 1160	Writing and Research	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	Statics	3	CIV ENG 2200*	Engineering Mechanics-Statics	3
PSCI 204	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	3
PSCI 205	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
PSCI 103	Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	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	28		Group 2 Major Requirements	27
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	65		Total Hours*	61

\*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>		
GEDR 103	General Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENGL 102	English Composition	3	ENGLISH 1160	Writing and Research	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
MATH 236	Linear Algebra	3	MATH 3108	Linear Algebra	3
PSCI 203	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
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>See your advisor for course options.</i>	6		Maximum Free Electives	6
	Group 2 Major Requirements	30		Group 2 Major Requirements	30
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	67		Total Hours*	64

\*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>		
GEDR 103	General Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENGL 102	English Composition	3	ENGLISH 1160	Writing and Research	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 103	Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
PSCI 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PSCI 204	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
	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	28		Group 2 Major Requirements	27
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	65		Total Hours*	61

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