

Kaskaskia College — Missouri S&T

General Engineering

Transfer Guide Effective as of Fall 2024

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.

Kaskaskia College		Semester	Missouri S&T			
MATH 166	Calculus and Analytical Geometry I	5	MATH 1214	Calculus I <small>Grade of C or better is required.</small>	4	
MATH 267	Calculus and Analytical Geometry II	4	MATH 1215	Calculus II <small>Grade of C or better is required.</small>	4	
MATH 268	Calculus and Analytical Geometry III	4	MATH 2222	Calculus III <small>Grade of C or better is required.</small>	4	
MATH 269	Differential Equations	3	MATH 3304	Elementary Differential Equations	3	
PHYS 201	University Physics I	5	PHYSICS 1135	Engineering Physics I <small>Grade of C or better is required.</small>	4	
PHYS 202	University Physics II	5	PHYSICS 2135	Engineering Physics II <small>Grade of C or better is required.</small>	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
Biomedical Engineering/Biomanufacturing or Biomaterials
Ceramic Engineering
Chemical Engineering and 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 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>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
HIST 102 or HIST 103 or HIST 104 or POLS 101	History of Western Civilization or History of the United States or History of the United States or American 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 SPCH 103	English Composition II or Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
ENGR 210	Electrical Circuits	3	EE 2800	Electrical Circuits	3
ENGR 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
ENGR 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
PHLE 201	Professional Ethics for Engineers <small>or other engineering, business, bio, social ethics approved by advisor</small>	3	PHILOS 3225	Engineering Ethics <small>or other engineering, business, bio, social ethics approved by advisor</small>	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	24		Group 2 Major Requirements	24
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	61		Total Hours*	58

*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&T</u>		
HIST 102 (or HIST 103 or HIST 104)	History of 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
ENGR 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
ENGR 204	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
ENGR 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 or Social Science or Communication	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language or one communication course from this list: ENG 102 or SPCH 103	3	Humanities or Social Science or Communication	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language or one communication course from this list: ENGLISH 1160, 1600, 3560 or SPMS 1185.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	19		Group 2 Major Requirements	17
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	56		Total Hours*	51

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

Biomedical Engineering-Biomanufacturing Group 2 Major Requirements

<u>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
SPCH 103	Speech	3	SP&MS 1185	Principles of Speech	3
HIST 102 or HIST 103 or HIST 104 or POLS 101	History of Western Civilization or History of the United States or History of the United States or American 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 112	Chemistry II (Physical and Analytical)	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not an S&T degree requirement. Will transfer as general credit.</small>	3
CHEM 208	Organic Chemistry I	5	CHEM 2210, 2219	Organic Chemistry I and Lab	4
CHM 209 or BIOL 101	Organic Chemistry II (5) or Biology (4)	4	CHEM 2220, 2229 or BIO SCI 1113, 1219	Organic Chemistry II and Lab or General Biology and Lab <small>Applies to degree as Track Elective.</small>	4
CIPT 155	Programming I	3	CS 1500	Computational Problem Solving <small>*Will be substituted for CS 1500.</small>	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	23		Group 2 Major Requirements	23
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	60		Total Hours*	57

*S&T advisor permission is required to transfer more than 68 credit hours toward the degree.

Biomedical Engineering-Biomaterials Group 2 Major Requirements

<u>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
SPCH 103	Speech	3	SP&MS 1185	Principles of Speech	3
HIST 102 or HIST 103 or HIST 104 or POLS 101	History of Western Civilization or History of the United States or History of the United States or American 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 112	Chemistry II (Physical and Analytical)	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not an S&T degree requirement. Will transfer as general credit.</small>	3
CHEM 208	Organic Chemistry I	5	CHEM 2210, 2219*	Organic Chemistry I and Lab* <small>*CHEM 2219 Lab applies to the degree as a Track Elective (non-engineering).</small>	4
CHEM 209	Organic Chemistry II	5	CHEM 2220, 2229*	Organic Chemistry II and Lab* <small>CHEM 2229 Lab applies to the degree as a Track Elective (non-engineering).</small>	4
BIOL 101	Biology	4	BIO SCI 1113*, 1219*	General General Biology* and Lab* <small>*Applies to degree as Track Elective (Non-engineering).</small>	4
CIPT 155	Programming I	3	CS 1500	Computational Problem Solving <small>*Will be substituted for CS 1500.</small>	3
ENGR 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
ENGR 210	Electrical Circuits	3	EE 2100*	Circuits I *A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for EE 2100. Applies to the degree as a Track Elective (Engineering).	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	34		Group 2 Major Requirements	30
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	71		Total Hours*	64

*S&T advisor permission is required to transfer more than 65 credits toward the S&T Biomedical Engineering degree.

Ceramic Engineering Group 2 Major Requirements

<u>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
HIST 102 or HIST 103 or HIST 104 or POLS 101	History of Western Civilization or History of the United States or History of the United States or American 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
ENGR 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
ENGR 205	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
CHEM 208	Organic Chemistry I	5	CHEM 2210	Organic Chemistry I <i>Will satisfy the advanced chemistry elective requirement.</i>	3
CHEM 112	Chemistry II (Physical and Analytical)	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <i>*CHEM 1510 is not an S&T degree requirement. Will transfer as general credit.</i>	3
ENGL 102 or SPCH 103 or HSS Elective	English Composition II or Speech or Any 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 Principles of Speech or Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	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 or Chemical Engineering - Biochemical Engineering Emphasis Group 2 Major Requirements

<u>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
SPCH 103	Speech	3	SP&MS 1185	Principles of Speech	3
HIST 102 or HIST 103 or HIST 104 or POLS 101	History of Western Civilization or History of the United States or History of the United States or American 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 112	Chemistry II (Physical and Analytical)	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <i>*CHEM 1510 is not an S&T degree requirement. Will transfer as general credit.</i>	3
CHEM 208	Organic Chemistry I	5	CHEM 2210, 2219*	Organic Chemistry I and Lab* <i>*The lab will apply to the degree as 1 of the 9 science elective credits (below) .</i>	4
CHEM 209 or BIOL 215 or CHEM 210	Organic Chemistry II (5) or Microbiology (4) or Biochemistry (5)	4	CHEM 2220 or BIO SCI 3313, 3319 or CHEM 4610, 4619	Organic Chemistry II (3) or Microbiology and Lab (5) or General Biochemistry and Lab (5) <i>Will satisfy science elective requirement. Select up to 9 hours from these options or CHEM 2219 Organic Chemistry Lab.</i>	8
CIPT 155	Programming I	3	CS 1500	Computational Problem Solving <i>*Will be substituted for CS 1500.</i>	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	26		Group 2 Major Requirements	27
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	63		Total Hours*	61

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

Civil Engineering Group 2 Major Requirements

<u>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
ENGL 102 or SPCH 103	English Composition II or Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
HIST 102 or HIST 103 or HIST 104 or POLS 101	History of Western Civilization or History of the United States or History of the United States or American 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
PSCI 103	Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
ENGR 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
ENGR 204	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
ENGR 205	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	22		Group 2 Major Requirements	20
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	59		Total Hours*	54

*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

Kaskaskia College		Semester	Missouri S&T		
SPCH 103	Speech	3	SPMS 1185	Principles of Speech	3
ENGL 102	English Composition II	3	ENGLISH 1160	Writing and Research	3
HIST 102 or HIST 103 or HIST 104 or POLS 101	History of Western Civilization or History of the United States or History of the United States or American 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
CIPT 155	Programming I	3	CS 1500	Computational Problem Solving <small>*Will be substituted for CS 1500.</small>	3
ENGR 203 or ENGR 204 or CHEM 208	Statics and Dynamics or Organic Chemistry I (5)	3	CIV ENG 2200 or MECH ENG 2350 or CHEM 2210, 2219	Engineering Mechanics-Statics (3) or Engineering Mechanics-Dynamics (2) or Organic Chemistry I and Lab (4) <small>Satisfies a required engineering/science elective.</small>	3
ENGR 210	Electrical Circuits	3	EE 2100**	Circuits I <small>**A passing grade on the Missouri S&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
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Electives	Maximum Free Electives	3	Electives	Maximum Free Electives	3
	Group 2 Major Requirements	27		Group 2 Major Requirements	27
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	64		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

Kaskaskia College		Semester	Missouri S&T		
SPCH 103	Speech	3	SPMS 1185	Principles of Speech	3
ENGL 102	English Composition II	3	ENGLISH 1160	Writing and Research	3
HIST 102 or HIST 103 or HIST 104 or POLS 101	History of Western Civilization or History of the United States or History of the United States or American 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
CIPT 155	Programming I	3	CS 1500	Computational Problem Solving <small>*Will be substituted for CS 1500.</small>	3
ENGR 203 and ENGR 204 BOTH of the courses above or ONE of the courses below. OR CHEM 208	Statics and Dynamics Both courses above combined or any one of the following courses will satisfy a required engineering science elective. OR Organic Chemistry I (5)	3	CIV ENG 2200 and MECH ENG 2350 BOTH of the courses above or ONE of the courses below. OR CHEM 2210	Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (2) Both courses above combined or any one of the following courses will satisfy a required engineering science elective. OR Organic Chemistry I and Lab (3) or	3
ENGR 210	Electrical Circuits	3	EE 2100**	Circuits I <small>**A passing grade on the Missouri S&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
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Electives	Maximum Free Electives	3	Electives	Maximum Free Electives	3
	Group 2 Major Requirements	27		Group 2 Major Requirements	27
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	64		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

<u>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
PSYH 101	Psychology	3	PSYCH 1101	General Psychology	3
HIST 102 or HIST 103 or HIST 104 or	History of Western Civilization or History of the United States or History of the United States or	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or	Modern Western Civilization or American History to 1877 or American History since 1877 or	3
POLS 101	American Government		POL SCI 1200	American Government	
SPCH 103	Speech	3	SPMS 1185	Principles of Speech	3
ENGL 102	English Composition II	3	ENGLISH 1160	Writing and Research	3
ENGR 210	Electrical Circuits	3	EE 2800	Electrical Circuits	3
ENGR 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
ENGR 204	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
ENGR 205	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	3	Electives	Maximum Free Electives	0
	Group 2 Major Requirements	30		Group 2 Major Requirements	26
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	67		Total Hours*	61

*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&T</u>		
ENGL 102 or SPCH 103	English Composition II or Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
HIST 102 or HIST 103 or HIST 104	History of 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	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, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not an S&T degree requirement. Will transfer as general credit.</small>	3
BIOL 101	Biology	4	BIO SCI 1113	General Biology	3
ENGR 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
ENGR 204	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
ENGR 205	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	31		Group 2 Major Requirements	26
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	68		Total Hours*	60

*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&T</u>		
HIST 102 or HIST 103 or HIST 104 or POLS 101	History of Western Civilization or History of the United States or History of the United States or American 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
CITP 155	Programming I	3	CS 1500	Computational Problem Solving	3
PSCI 103	Geology	4	GEO ENG 1150 (GEOLOGY 1110)	Physical and Environmental Geology	3
ENGR 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
ENGR 204	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
ENGR 205	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	25		Group 2 Major Requirements	23
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	62		Total Hours*	57

*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&T</u>		
HIST 102 or HIST 103 or HIST 104 or POLS 101	History of Western Civilization or History of the United States or History of the United States or American 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 SPCH 103	English Composition II or Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
ENGR 210	Electrical Circuits	3	EE 2800	Electrical Circuits	3
ENGR 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
ENGR 205	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
MATH 236	Linear Algebra	3	MATH 3108	Linear Algebra I	3
	Literature Elective	3		<i>Will satisfy the Advanced Math/Statistics elective requirement.</i> Literature Elective	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	24		Group 2 Major Requirements	24
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	61		Total Hours*	58

*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&T</u>		
ENGL 102 or SPCH 103	English Composition II or Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
HIST 102 or HIST 103 or HIST 104 or POLS 101	History of Western Civilization or History of the United States or History of the United States or American 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
ENGR 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
ENGR 205	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
CHEM 112	Chemistry II (Physical and Analytical)	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not an S&T degree requirement. Will transfer as general credit.</small>	3
CHEM 208 or ENGR 210	Organic Chemistry I or Electrical Circuits	3	CHEM 2210 or EE 2800	Organic Chemistry I or Electrical Circuits <small>Not specifically required for the degree but will satisfy Out-of-Department Technical Elective Requirement.</small>	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Electives	Maximum Free Electives	5	Electives	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 Metallurgical Engineering degree.

Mining Engineering Group 2 Major Requirements

<u>Kaskaskia College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
ENGL 102	English Composition II	3	ENGLISH 1160	Writing and Research	3
HIST 102 or HIST 103 or HIST 104 or POLS 101	History of Western Civilization or History of the United States or History of the United States or American 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
ENGR 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
ENGR 204	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
ENGR 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 or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	25		Group 2 Major Requirements	23
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	62		Total Hours*	57

*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&T</u>		
ENGL 102 or SPCH 103	English Composition II or Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
HIST 102 or HIST 103 or HIST 104 or POLS 101	History of Western Civilization or History of the United States or History of the United States or American 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
MATH 236	Linear Algebra	3	MATH 3108	Linear Algebra I	3
ENGR 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
ENGR 205	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
ENGR 210	Electrical Circuits	3	EE 2800	Electrical Circuits	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Electives	Maximum Free Electives	6	Electives	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&T</u>		
ENGL 102	English Composition II	3	ENGLISH 1160	Writing and Research	3
HIST 102 or HIST 103 or HIST 104 or POLS 101	History of Western Civilization or History of the United States or History of the United States or American 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
PSCI 103	Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
ENGR 203	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
ENGR 204	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
ENGR 205	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	25		Group 2 Major Requirements	23
	Group 1 Core Requirements	37		Group 1 Core Requirements	34
	Total Hours	62		Total Hours*	57

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