

# Rend Lake 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>Rend Lake College</u>			<u>Semester</u>	<u>Missouri S&amp;T</u>			
MATH 1121	Calculus and Analytical Geometry I	5		MATH 1214	Calculus I	4	
MATH 2122	Calculus and Analytical Geometry II	5		MATH 1215	Calculus II	4	
MATH 2123	Calculus and Analytical Geometry III	4		MATH 2222	Calculus III	4	
MATH 2130	Differential Equations	3		MATH 3304	Elementary Differential Equations	3	
PHY 1103	University Physics I	5		PHYSICS 1135	Engineering Physics I	4	
PHY 1104	University Physics II	5		PHYSICS 2135	Engineering Physics II	4	
CHE 1103	Inorganic Chemistry	5		CHEM 1310, 1319	General Chemistry I and Lab	5	
ENGL 1101	Rhetoric and Composition	3		ENGLISH 1120	Exposition and Argumentation	3	
ECON 2102 or	Principles of Economics II or	3		ECON 1100 or	Principles of Microeconomics or	3	
ECON 2101	Principles of Economics I	3		ECON 1200	Principles of Macroeconomics	3	
Total Hours			38	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>Rend Lake College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
HIST 1102 or HIST 2101 or HIST 2102 or POLI 2101	Western Civilization II or American History I or American History II 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 1102 or COMM 1101	Rhetoric and Composition II or Principles of Effective Public Speaking	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
PHY 2121	Electrical Engineering Circuits	4	EE 2800	Electrical Circuits	3
PHY 2101	Statics	3	CIV ENG 2200	Engineering Mechanics - Statics	3
MATH 2108	Linear Algebra	3	MATH 3108	Linear Algebra I (Will satisfy the Advanced Math/Comp Sci elective requirement.)	3
	Literature Elective	3		Literature Elective	3
	Ethics Elective	3		Ethics Elective Engineering, business, bio, social or other ethics approved by advisor.	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	38		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 Aerospace Engineering degree.

## Architectural Engineering Group 2 Major Requirements

<u>Rend Lake College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
HIST 1102 or HIST 2101 or HIST 2102	Western Civilization II or American History I or American History II	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
PHY 2101	Statics	3	CIV ENG 2200	Engineering Mechanics - Statics	3
PHY 2102	Dynamics	3	MECH ENG 2350	Engineering Mechanics - Dynamics	2
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	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	12		Group 2 Major Requirements	11
	Group 1 Core Requirements	38		Group 1 Core Requirements	34
	Total Hours	50		Total Hours*	45

\*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>Rend Lake College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
HIST 1102 or HIST 2101 or HIST 2102 or POLI 2101	Western Civilization II or American History I or American History II 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
PHY 2101	Statics	3	CIV ENG 2200	Engineering Mechanics - Statics	3
CHE 2120	Organic Chemistry I	5	CHEM 2210, 2219*	Organic Chemistry I and Lab* <small>(Will satisfy the advanced chemistry elective requirement.)</small>	3
CHE 1104	Qualitative Analysis and Inorganic Chemistry	5	CHEM 1320	General Chemistry II	3
ENGL 1102 or COMM 1101 or HSS Elective	Rhetoric and Composition II or Principles of Effective 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 Principles of Speech 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	19		Group 2 Major Requirements	18
	Group 1 Core Requirements	38		Group 1 Core Requirements	34
	Total Hours	57		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>Rend Lake College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
HIST 1102 or HIST 2101 or HIST 2102 or POLI 2101	Western Civilization II or American History I or American History II 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
CHE 1104	Qualitative Analysis and Inorganic Chemistry	5	CHEM 1320	General Chemistry II	3
CHE 2120	Organic Chemistry I	5	CHEM 2210, 2219*	Organic Chemistry I and Lab* <small>*The lab is not required for the degree, will partially satisfy the 9-credit-hour science elective requirement.</small>	4
CHE 2121	Organic Chemistry II	5	CHEM 2220	Organic Chemistry II <small>(Will partially satisfy the 9-credit-hour science elective requirement.)</small>	3
COM 1101	Principles of Effective 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	24		Group 2 Major Requirements	19
	Group 1 Core Requirements	38		Group 1 Core Requirements	34
	Total Hours	62		Total Hours*	53

\*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>Rend Lake College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
HIST 1102 or HIST 2101 or HIST 2102 or POLI 2101	Western Civilization II or American History I or American History II 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
CHE 1104	Qualitative Analysis and Inorganic Chemistry	5	CHEM 1320	General Chemistry II	3
CHE 2120	Organic Chemistry I	5	CHEM 2210, 2219*	Organic Chemistry I and Lab* <small>*The lab is not required for the degree, will partially satisfy the 9-credit-hour science elective requirement.</small>	4
CHE 2121	Organic Chemistry II	5	CHEM 2220	Organic Chemistry II <small>(Will partially satisfy the 9-credit-hour science elective requirement.)</small>	3
COM 1101	Principles of Effective 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	24		Group 2 Major Requirements	19
	Group 1 Core Requirements	38		Group 1 Core Requirements	34
	Total Hours	62		Total Hours*	53

\*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>Rend Lake College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 1102 or COMM 1101	Rhetoric and Composition II or Principles of Effective Public Speaking	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
HIST 1102 or HIST 2101 or HIST 2102 or POLI 2101	Western Civilization II or American History I or American History II 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
PHY 2101	Statics	3	CIV ENG 2200	Engineering Mechanics - Statics	3
PHY 2102	Dynamics	3	MECH ENG 2350	Engineering Mechanics - Dynamics	2
	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	14
	Group 1 Core Requirements	38		Group 1 Core Requirements	34
	Total Hours	53		Total Hours*	48

\*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>Rend Lake College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
COMM 1101	Principles of Effective Public Speaking	3	SPMS 1185	Principles of Speech	3
ENGL 1102	Rhetoric and Composition II	3	ENGLISH 1160	Writing and Research	3
HIST 1102 or HIST 2101 or HIST 2102 or POLI 2101	Western Civilization II or American History I or American History II 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
PHY 2101 or PHY 2102 or CHEM 2210	Statics or Dynamics or Organic Chemistry I	3	CIV ENG 2200 or MECH ENG 2350 or CHEM 2210	Engineering Mechanics-Statics (3) or Engineering Mechanics-Dynamics (2) or Organic Chemistry I (3) <small>Satisfies a required engineering/science elective.</small>	3
PHY 2121	Electrical Engineering Circuits		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 2108	Linear Algebra	3	MATH 3108	Linear Algebra <small>(Will satisfy a required math elective.)</small>	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	Maximum Free Electives	3		Maximum Free Electives	3
	Group 2 Major Requirements	21		Group 2 Major Requirements	24
	Group 1 Core Requirements	38		Group 1 Core Requirements	34
	Total Hours	59		Total Hours*	58

\*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>Rend Lake College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
COMM 1101	Principles of Effective Public Speaking	3	SPMS 1185	Principles of Speech	3
ENGL 1102	Rhetoric and Composition II	3	ENGLISH 1160	Writing and Research	3
HIST 1102 or HIST 2101 or HIST 2102 or POLI 2101	Western Civilization II or American History I or American History II 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
PHY 2101 and PHY 2102 <small>(BOTH of the courses above or ONE of the courses below.)</small>	Statics and Dynamics <small>(Both courses above combined or any one of the following courses will satisfy a required engineering science elective.)</small>	3	CIV ENG 2200 and MECH ENG 2350 <small>(BOTH of the courses above or ONE of the courses below.)</small>	Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (2) <small>(Both courses above combined or any one of the following courses will satisfy a required engineering science elective.)</small>	3
OR CHEM 2120	OR Organic Chemistry I		OR CHEM 2210	OR Organic Chemistry I (3)	
PHY 2121	Electrical Engineering Circuits	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 2108	Linear Algebra	3	MATH 3108	Linear Algebra	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	Maximum Free Electives	3		Maximum Free Electives	3
	Group 2 Major Requirements	25		Group 2 Major Requirements	24
	Group 1 Core Requirements	38		Group 1 Core Requirements	34
	Total Hours	63		Total Hours*	58

\*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>Rend Lake College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
PSYC 2101	Intro to Psychology	3	PSYCH 1101	General Psychology	3
HIST 1102 or	Western Civilization II or		HISTORY 1200 or	Modern Western Civilization or	
HIST 2101 or	American History I or	3	HISTORY 1300 or	American History to 1877 or	3
HIST 2102 or	American History II or		HISTORY 1310 or	American History since 1877 or	
POLI 2101	American Government		POL SCI 1200	American Government	
COMM 1101	Principles of Effective Public Speaking	3	SPMS 1185	Principles of Speech	3
ENGL 1102	Rhetoric and Composition II	3	ENGLISH 1160	Writing and Research	3
PHY 2121	Electrical Engineering Circuits	4	EE 2800	Electrical Circuits	3
PHY 2101	Statics	3	CIV ENG 2200	Engineering Mechanics - Statics	3
PHY 2102	Dynamics	3	MECH ENG 2350	Engineering Mechanics - Dynamics	2
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	Maximum Free Electives	3		Maximum Free Electives	3
	Group 2 Major Requirements	28		Group 2 Major Requirements	26
	Group 1 Core Requirements	38		Group 1 Core Requirements	34
	Total Hours	66		Total Hours*	60

\*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>Rend Lake College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 1102 or	Rhetoric and Composition II or		ENGLISH 1160 or	Writing and Research or	
COMM 1101	Principles of Effective Public Speaking	3	SPMS 1185	Principles of Speech	3
HIST 1102 or	Western Civilization II or		HISTORY 1200 or	Modern Western Civilization or	
HIST 2101 or	American History I or	3	HISTORY 1300 or	American History to 1877 or	3
HIST 2102	American History II		HISTORY 1310	American History since 1877	
CHE 1104	Qualitative Analysis and Inorganic Chemistry	5	CHEM 1320	General Chemistry II	3
BIO 1101	College Biology	5	BIO SCI 1113	General Biology	3
PHY 2101	Statics	3	CIV ENG 2200	Engineering Mechanics - Statics	3
PHY 2102	Dynamics	3	MECH ENG 2350	Engineering Mechanics - Dynamics	2
	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	20
	Group 1 Core Requirements	38		Group 1 Core Requirements	34
	Total Hours	63		Total Hours*	54

\*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>Rend Lake College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
HIST 1102 or HIST 2101 or HIST 2102 or POLI 2101	Western Civilization II or American History I or American History II 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
PHY 2101	Statics	3	CIV ENG 2200	Engineering Mechanics - Statics	3
PHY 2102	Dynamics	3	MECH ENG 2350	Engineering Mechanics - Dynamics	2
BIO 1101 or CHE 1104 or CHE 2120	College Biology or Qualitative Analysis and Inorganic Chemistry or Organic Chemistry I <small>or any 3-hour course in chemistry, geochemistry, or biology.</small>	5	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	20		Group 2 Major Requirements	17
	Group 1 Core Requirements	38		Group 1 Core Requirements	34
	Total Hours	58		Total Hours*	51

\*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>Rend Lake College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
HIST 1102 or HIST 2101 or HIST 2102 or POLI 2101	Western Civilization II or American History I or American History II 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 1102 or COMM 1101	Rhetoric and Composition II or Principles of Effective Public Speaking	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
PHY 2121	Electrical Engineering Circuits	4	EE 2800	Electrical Circuits	3
PHY 2101	Statics	3	CIV ENG 2200	Engineering Mechanics - Statics	3
MATH 2108	Linear Algebra	3	MATH 3108	Linear Algebra I <small>(Will satisfy the Advanced Math/Computer Science 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	22		Group 2 Major Requirements	21
	Group 1 Core Requirements	38		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 Mechanical Engineering degree.

## Metallurgical Engineering Group 2 Major Requirements

<u>Rend Lake College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 1102 or COMM 1101	Rhetoric and Composition II or Principles of Effective Public Speaking	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
HIST 1102 or HIST 2101 or HIST 2102 or POLI 2101	Western Civilization II or American History I or American History II 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
PHY 2101	Statics	3	CIV ENG 2200	Engineering Mechanics - Statics	3
CHE 1104	Qualitative Analysis and Inorganic Chemistry	5	CHEM 1320	General Chemistry II	3
CHE 2120 or PHY 2121	Organic Chemistry I (5) or Electrical Engineering Circuits (4)	5	CHEM 2210 or EE 2800	Organic Chemistry I or Electrical Circuits	3
	Humanities/Social Science Elective	3		Not specifically required for the degree but will satisfy Out-of-Department Technical Elective Requirement.	
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	Maximum Free Electives	5		Maximum Free Electives	3
	Group 2 Major Requirements	30		Group 2 Major Requirements	24
	Group 1 Core Requirements	38		Group 1 Core Requirements	34
	Total Hours	68		Total Hours*	58

\*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>Rend Lake College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 1102	Rhetoric and Composition II	3	ENGLISH 1160	Writing and Research	3
HIST 1102 or HIST 2101 or HIST 2102 or POLI 2101	Western Civilization II or American History I or American History II 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
PHY 2101	Statics	3	CIV ENG 2200*	Engineering Mechanics - Statics	3
PHY 2102	Dynamics	3	MECH ENG 2350	Engineering Mechanics - Dynamics	2
	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	17
	Group 1 Core Requirements	38		Group 1 Core Requirements	34
	Total Hours	56		Total Hours*	51

\*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>Rend Lake College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 1102 or COMM 1101	Rhetoric and Composition II or Principles of Effective Public Speaking	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
HIST 1102 or HIST 2101 or HIST 2102 or POLI 2101	Western Civilization II or American History I or American History II 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 2108	Linear Algebra	3	MATH 3108	Linear Algebra	3
PHY 2101	Statics	3	CIV ENG 2200	Engineering Mechanics - Statics	3
PHY 2121	Electrical Engineering Circuits	4	EE 2800	Electrical Circuits	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	28		Group 2 Major Requirements	27
	Group 1 Core Requirements	38		Group 1 Core Requirements	34
	Total Hours	66		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>Rend Lake College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 1102	Rhetoric and Composition II	3	ENGLISH 1160	Writing and Research	3
HIST 2101 or HIST 2102 or HIST 1102 or POLI 2101	American History I or American History II or Western Civilization II 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
PHY 2101	Statics	3	CIV ENG 2200	Engineering Mechanics - Statics	3
PHY 2102	Dynamics	3	MECH ENG 2350	Engineering Mechanics - Dynamics	2
	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	17
	Group 1 Core Requirements	38		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 Petroleum Engineering degree.