

# Columbia 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>Columbia College</u>	<u>Semester</u>	<u>Missouri S&amp;T</u>	
MATH 215 and MATH 226 and MATH 235	Differential Calculus and Integral Calculus, Part I and Integral Calculus, Part II	9	MATH 1214 & MATH 1215
			Calculus for Engineers I & II Grade of C or better is required. Calculus with Analytic Geometry III
MATH 300	Multivariate Calculus	3	MATH 2222
MATH 370	Differential Equations	3	MATH 3304
PHYS 211	Calculus-Based Physics I	5	PHYSICS 1135
PHYS 212	Calculus-Based Physics II	5	PHYSICS 2135
CHEM 110, 111L	Chemistry I and Lab	5	CHEM 1310, 1319
ENGL 111	English Composition I	3	ENGLISH 1120
ECON 294 or ECON 293	Microeconomics or Macroeconomics	3	ECON 1100 or ECON 1200
	Total Hours	36	
			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

Columbia College		Semester	Missouri S&T	
HIST 121 or HIST 122 or HIST 102 or GOVT 112	American History to 1877 or American History since 1877 or Western Civilization II or American Government II	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
ENGL 112 or COMM 110 or ENGL 204	English Composition II or Introduction to Speech or Technical Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Principles of Speech or Technical Writing
CISS 242	Programming II	3	CS 1570, 1580 STAT 3115	Intro to Programming and Lab (C++) Engineering Statistics <small>(Will satisfy the Advanced Math/Comp Sci elective requirement.)</small>
MATH 338	Mathematical Statistics and Probability	3		Literature Elective Ethics Elective
	<i>See your advisor for course options.</i>			Maximum Free Electives
	<i>See your advisor for course options.</i>			Group 2 Major Requirements
	<i>No free electives applied to the degree.</i>			Group 1 Core Requirements
	Group 2 Major Requirements	12		18
	Group 1 Core Requirements	36		34
	Total Hours	48		Total Hours* 52

\*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

Columbia College		Semester	Missouri S&T	
HIST 102 or HIST 121 or HIST 122	Western Civilization II or American History to 1877 or American History since 1877	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>
MATH 338	Mathematical Statistics and Probability	3	STAT 3115	Engineering Statistics <small>(Will be substituted for STAT 3113.)</small> Writing and Research or Public Speaking or
ENGL 112 or COMM 110	English Composition II or Introduction to Speech	3	ENGLISH 1160 or SPMS 1185 or HSS Elective	Humanities/Social Science Elective: history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language Intro to Physical Geology or
GEOL 110,10L or BIOL 102 or ASTR 108	Intro to Physical Geology and Lab or Introduction to Anatomy and Physiology or Intro to Astronomy	5	GEOLOGY 1111 or BIO SCI 1213 or BIO SCI 1943	Intro to Human Anatomy and Physiology I or Introductory Astronomy (or other chemistry, geology, biology, physics, or astronomy course that is not otherwise required for the degree) <span style="float: right;"><small>Applies to the degree as a basic science elective</small></span>
	<i>No free electives applied to the degree.</i>			Maximum Free Electives
	Group 2 Major Requirements	14		12
	Group 1 Core Requirements	36		34
	Total Hours	50		Total Hours* 46

\*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>Columbia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
HIST 121 or HIST 122 or HIST 102 or GOVT 112	American History to 1877 or American History since 1877 or Western Civilization II or American Government II	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, 112L	Chemistry II and Lab	5	CHEM 1320	General Chemistry II	3
MATH 338	Mathematical Statistics and Probability	3	STAT 3115	Engineering Statistics	3
ENGL 112 or COMM 110	English Composition II or Introduction to 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 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		14	Group 2 Major Requirements		15
Group 1 Core Requirements		36	Group 1 Core Requirements		34
Total Hours		50	Total Hours*		49

\*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>Columbia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 112 or ENGL 204	English Composition II or Technical Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
HIST 121 or HIST 122 or HIST 102 or GOVT 112	American History to 1877 or American History since 1877 or Western Civilization II or American Government II	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 1320	General Chemistry II	5
			CHEM 2210	Organic Chemistry I	3
			CHEM 2220	Organic Chemistry II (Will satisfy science elective requirement.)	3
CISS 242	Programming II	3	CS 1570, 1580	Intro to Programming and Lab (C++)	3
MATH 338	Mathematical Statistics and Probability	3	STAT 3115	Engineering Statistics (Will be substituted for STAT 3113.)	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		12	Group 2 Major Requirements		29
Group 1 Core Requirements		36	Group 1 Core Requirements		34
Total Hours		48	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>Columbia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 112 or ENGL 204	English Composition II or Technical Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
HIST 121 or HIST 122 or HIST 102 or GOVT 112	American History to 1877 or American History since 1877 or Western Civilization II or American Government II	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, 112L	Chemistry II and Lab	5	CHEM 1320	General Chemistry II	5
CISS 242	Programming II	3	CS 1570, 1580	Intro to Programming and Lab (C++)	3
MATH 338	Mathematical Statistics and Probability	3	STAT 3115	Engineering Statistics (Will be substituted for STAT 3113.)	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		17	Group 2 Major Requirements		23
Group 1 Core Requirements		36	Group 1 Core Requirements		34
Total Hours		53	Total Hours*		57

\*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>Columbia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>	
ENGL 112 or COMM 110 or ENGL 204	English Composition II or Introduction to Speech or Technical Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Public Speaking or Technical Writing
HISI 121 or HIST 122 or HIST 102 or GOVT 112	American History to 1877 or American History since 1877 or Western Civilization II or American Government II	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
GEOL 110, 110L	Intro to Physical Geology and Lab	5	GEO 1110/GE 1150	Intro to Physical Geology
MATH 338	Mathematical Statistics and Probability	3	STAT 3115	Engineering Statistics (Will be substituted for STAT 3113.)
	<i>See your advisor for course options.</i>			Humanities/Social Science Elective
	<i>No free electives applied to the degree.</i>			Maximum Free Electives
	Group 2 Major Requirements	14		Group 2 Major Requirements
	Group 1 Core Requirements	36		Group 1 Core Requirements
	Total Hours	50		Total Hours*
				49

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

## Computer Engineering Group 2 Major Requirements

<u>Columbia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>	
COMM 110	Introduction to Speech	3	SPMS 1185	Public Speaking
ENGL 112 or ENGL 204	English Composition II or Technical Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing
HISI 121 or HIST 122 or HIST 102 or GOVT 112	American History to 1877 or American History since 1877 or Western Civilization II or American Government II	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
MATH 225	Discrete Mathematics	3	CS 1200	Discrete Math for Computer Science
CISS 242	Programming II	3	CS 1570, 1580	Intro to Programming and Lab (C++)
MATH 338	Mathematical Statistics and Probability	3	STAT 3115	Engineering Statistics (Will be substituted for STAT 3117.)
	<i>See your advisor for course options.</i>			Humanities/Social Science Elective
	<i>See your advisor for course options.</i>			Maximum Free Electives
	Group 2 Major Requirements	18		Group 2 Major Requirements
	Group 1 Core Requirements	36		Group 1 Core Requirements
	Total Hours	54		Total Hours*
				59

\*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>Columbia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>	
COMM 110	Introduction to Speech	3	SPMS 1185	Public Speaking
ENGL 112 or ENGL 204	English Composition II or Technical Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing
HISI 121 or HIST 122 or HIST 102 or GOVT 112	American History to 1877 or American History since 1877 or Western Civilization II or American Government II	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
CISS 242	Programming II	3	CS 1570, 1580	Intro to Programming and Lab (C++)
MATH 338	Mathematical Statistics and Probability	3	STAT 3115	Engineering Statistics (Will be substituted for STAT 3117.)
	<i>See your advisor for course options.</i>			Humanities/Social Science Elective
	<i>See your advisor for course options.</i>			Maximum Free Electives
	Group 2 Major Requirements	15		Group 2 Major Requirements
	Group 1 Core Requirements	36		Group 1 Core Requirements
	Total Hours	51		Total Hours*
				56

\*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>Columbia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
PSY 101	General Psychology	3	PSYCH 1101	General Psychology	3
HIS1 121 or HIST 122 or HIST 102 or GOVT 112	American History to 1877 or American History since 1877 or Western Civilization II or American Government II	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 112 or COMM 110 or ENGL 204	English Composition II or Introduction to Speech or Technical Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Principles of Speech or Technical Writing	3
MATH 338	Mathematical Statistics and Probability	3	STAT 3115	Engineering Statistics	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		12	Group 2 Major Requirements		18
Group 1 Core Requirements		36	Group 1 Core Requirements		34
Total Hours		48	Total Hours*		52

\*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>Columbia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 112 or COMM 110 or ENGL 204	English Composition II or Introduction to Speech or Technical Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Public Speaking or Technical Writing	3
HIST 121 or HIST 122 or HIST 102	American History to 1877 or American History since 1877 or Western Civilization II	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200	American History to 1877 (preferred) or American History since 1877 (preferred) or Modern Western Civilization	3
GEOL 110, 110L	Intro to Physical Geology and Lab	5	GEO 1110/GE 1150	Intro to Physical Geology	3
CHEM 112, 112L	Chemistry II and Lab	5	CHEM 1320	General Chemistry II	3
BIOL 110, 119L	Principles of Biology and Lab	5	BIO SCI 1113	General Biology	4
MATH 338	Mathematical Statistics and Probability	3	STAT 3115	Engineering Statistics (Will be substituted for STAT 3113.)	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		22
Group 1 Core Requirements		36	Group 1 Core Requirements		34
Total Hours		60	Total Hours*		56

\*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>Columbia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 112 or COMM 110 or ENGL 204	English Composition II or Introduction to Speech or Technical Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Public Speaking or Technical Writing	3
HIS1 121 or HIST 122 or HIST 102 or GOVT 112	American History to 1877 or American History since 1877 or Western Civilization II or American Government II	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
GEOL 110, 110L	Intro to Physical Geology and Lab	5	GEO 1110/GEO 1119	Physical and Environmental Geology	3
BIOL 110, 119L or CHEM 112, 112L	Principles of Biology and Lab or Chemistry II and Lab	5	BIO SCI 1113 or CHEM 1320	General Biology or General Chemistry II <i>or any 3-hour course in chemistry, geochemistry, or biology</i>	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		16	Group 2 Major Requirements		15
Group 1 Core Requirements		36	Group 1 Core Requirements		34
Total Hours		52	Total Hours*		49

\*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>Columbia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>	
HISI 121 or HIST 122 or HIST 102 or GOVT 112	American History to 1877 or American History since 1877 or Western Civilization II or American Government II	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
ENGL 112 or COMM 110 or ENGL 204	English Composition II or Introduction to Speech or Technical Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Principles of Speech or Technical Writing
		3	CS 1570, 1580	Intro to Programming and Lab (C++)
CISS 242	Programming II			3
MATH 338	Mathematical Statistics and Probability	3	STAT 3115	Engineering Statistics (Will satisfy the Advanced Math/Comp Sci elective requirement.)
				3
				Literature Elective
				3
				Humanities/Social Science Elective
				3
				Maximum Free Electives
				0
	Group 2 Major Requirements	3		Group 2 Major Requirements
	Group 1 Core Requirements	36		Group 1 Core Requirements
	Total Hours	39		Total Hours*
				43

\*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>Columbia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>	
ENGL 112 or COMM 110 or ENGL 204	English Composition II or Introduction to Speech or Technical Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Public Speaking or Technical Writing
HISI 121 or HIST 122 or HIST 102 or GOVT 112	American History to 1877 or American History since 1877 or Western Civilization II or American Government II	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
MATH 338	Mathematical Statistics and Probability	3	STAT 3115	Engineering Statistics
CHEM 112, 112L	Chemistry II and Lab	5	CHEM 1320	General Chemistry II
				3
				Humanities/Social Science Elective
				3
				Humanities/Social Science Elective
				3
				Maximum Free Electives
				5
	Group 2 Major Requirements	14		Group 2 Major Requirements
	Group 1 Core Requirements	36		Group 1 Core Requirements
	Total Hours	50		Total Hours*
				57

\*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>Columbia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 112 or ENGL 204	English Composition II or Technical Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
HIST 121 or HIST 122 or HIST 102 or GOVT 112	American History to 1877 or American History since 1877 or Western Civilization II or American Government II	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 338	Mathematical Statistics and Probability	3	STAT 3115	Engineering Statistics	3
GEOL 110, 110L	Intro to Physical Geology and Lab	5	GEO 1110/GE 1150	Intro to Physical Geology	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	14		Group 2 Major Requirements	18
	Group 1 Core Requirements	36		Group 1 Core Requirements	34
	Total Hours	50		Total Hours*	52

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

## Nuclear Engineering Group 2 Major Requirements

<u>Columbia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 112 or ENGL 204	English Composition II or Technical Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
HIST 121 or HIST 122 or HIST 102 or GOVT 112	American History to 1877 or American History since 1877 or Western Civilization II or American Government II	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
CISS 242	Programming II	3	CS 1570, 1580	Intro to Programming and Lab (C++)	4
MATH 338	Mathematical Statistics and Probability	3	STAT 3115	Engineering Statistics	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>See your advisor for course options.</i>			Maximum Free Electives	6
	Group 2 Major Requirements	12		Group 2 Major Requirements	21
	Group 1 Core Requirements	36		Group 1 Core Requirements	34
	Total Hours	48		Total Hours*	55

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

## Petroleum Engineering Group 2 Major Requirements

<u>Columbia College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENGL 112 or ENGL 204	English Composition II or Technical Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
HIST 121 or HIST 122 or HIST 102 or GOVT 112	American History to 1877 or American History since 1877 or Western Civilization II or American Government II	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
GEOL 110, 110L	Intro to Physical Geology and Lab	5	GEO 1110/GEO 1119	Physical and Environmental Geology	3
MATH 338	Mathematical Statistics and Probability	3	STAT 3115	Engineering Statistics	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	8		Group 2 Major Requirements	12
	Group 1 Core Requirements	36		Group 1 Core Requirements	34
	Total Hours	44		Total Hours*	46

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