

# Lindenwood University — 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>Lindenwood University</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
MTH 271	Calculus I	4	MATH 1214	Calculus for Engineers I <small>Grade of C or better is required.</small>	4
MTH 272	Calculus II	4	MATH 1215	Calculus for Engineers II <small>Grade of C or better is required.</small>	4
MTH 303	Calculus III	4	MATH 2222	Calculus with Analytic Geometry III <small>Grade of C or better is required.</small>	4
MTH 311	Differential Equations	3	MATH 3304	Elementary Differential Equations	3
PHY 301	General Physics	3	PHYSICS 1135	Engineering Physics I <small>Grade of C or better is required.</small>	4
PHY 302	General Physics II	3	PHYSICS 2135	Engineering Physics II <small>Grade of C or better is required.</small>	4
CHM 231, 241	General Chemistry and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
ENG 101	English Composition I	3	ENGLISH 1120	Exposition and Argumentation	3
BA 211 or BA 212	Microeconomics or Macroeconomics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3
Total Hours		32	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>Lindenwood University</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
HIS 105 or HIS 106 or PS 155	America: Colony to Civil War or America: Civil War to World Power or American National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	American History to 1877 or American History since 1877 or American Government	3
ENG 170 or COM 110	English Composition II or Communications	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
CSC 144 or CSC 184	Computer Science I or Computer Science II	4	CS 1971, 1981 or CS 1570, 1580	Intro to Programming Method and Lab (C++) or Intro to Programming and Lab (C++)	3
EGR 361	Circuit Theory I	3	EE 2800	Circuit Analysis I	3
EGR 331	Engineering Mechanics I -Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
MTH 316	Linear Algebra I	3	MATH 3108	Linear Algebra I <small>(Will satisfy the Advanced Math/Comp Sci elective requirement.)</small>	3
	<i>See your advisor for course options.</i>			Literature Elective	3
	<i>See your advisor for course options.</i>			Ethics Elective	3
	<i>No free electives applied to the degree.</i>			Maximum Free Electives	0
	Group 2 Major Requirements	19		Group 2 Major Requirements	24
	Group 1 Core Requirements	32		Group 1 Core Requirements	34
	Total Hours	51		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>Lindenwood University</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
HIS 105 or HIS 106	America: Colony to Civil War or America: Civil War to World Power	3	HISTORY 1300 or HISTORY 1310	American History to 1877 or American History since 1877	3
EGR 331	Engineering Mechanics I -Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 332	Engineering Mechanics II -Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	3
ENG 170 or COM 110	English Composition II or Communications	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
ESC 100 or BSC 24400 or ESA 100	Physical Geology with Lab or Intro to Cellular and Molecular Biology or Astronomy	4	GEOLOGY 1111 or BIO SCI 1213 or PHYSICS 1505	Intro to Physical Geology or Principles of Biology 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</small></span>	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	32		Group 1 Core Requirements	34
	Total Hours	48		Total Hours*	49

\*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>Lindenwood University</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
HIS 105 or HIS 106 or PS 155	America: Colony to Civil War or America: Civil War to World Power or American National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	American History to 1877 or American History since 1877 or American Government	3
EGR 331	Engineering Mechanics I -Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
CHM 361	Organic Chemistry I and Lab	4	CHEM 2210/2219	Organic Chemistry I and Lab (Not a specific requirement. Will satisfy technical elective requirement.)	5
CHM 252, 262	General Chemistry II and Lab	5	CHEM 1320	General Chemistry II	3
ENG 170 or COM 110	English Composition II or Communications	3	ENGLISH 1160 or SPMS 1185 or HSS Elective	Writing and Research or Public Speaking or Humanities/Social Science Elective: history, economics, political science, sociology, psychology, Humanities/Social Science Elective	3
<i>See your advisor for course options.</i>					3
<i>No free electives applied to the degree.</i>					0
Group 2 Major Requirements		18	Group 2 Major Requirements		20
Group 1 Core Requirements		32	Group 1 Core Requirements		34
Total Hours		50	Total Hours*		54

\*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>Lindenwood University</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENG 170	English Composition II	3	ENGLISH 1160	Writing and Research	3
HIS 105 or HIS 106 or PS 155	America: Colony to Civil War or America: Civil War to World Power or American National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	American History to 1877 or American History since 1877 or American Government	3
CHM 252, 262	General Chemistry II and Lab	5	CHEM 1320	General Chemistry II	5
CHM 361	Organic Chemistry I and Lab	4	CHEM 2210	Organic Chemistry I	3
CHM 362	Organic Chemistry II and Lab	4	CHEM 2220	Organic Chemistry II (Will satisfy science elective requirement.)	3
CSC 144 or CSC 184	Computer Science I or Computer Science II	4	CS 1971, 1981 or CS 1570, 1580	Intro to Programming Method and Lab (C++) or Intro to Programming and Lab (C++)	3
<i>See your advisor for course options.</i>					3
<i>See your advisor for course options.</i>					3
<i>No free electives applied to the degree.</i>					0
Group 2 Major Requirements		23	Group 2 Major Requirements		26
Group 1 Core Requirements		32	Group 1 Core Requirements		34
Total Hours		55	Total Hours*		60

\*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>Lindenwood University</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENG 170	English Composition II	3	ENGLISH 1160	Writing and Research	3
HIS 105 or HIS 106 or PS 155	America: Colony to Civil War or America: Civil War to World Power or American National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	American History to 1877 or American History since 1877 or American Government	3
CHM 252, 262	General Chemistry II and Lab	5	CHEM 1320	General Chemistry II	5
CHM 361	Organic Chemistry I and Lab	4	CHEM 2210	Organic Chemistry I	3
CHM 362	Organic Chemistry II and Lab	4	CHEM 2220	Organic Chemistry II (Will satisfy science elective requirement.)	3
CSC 144 or CSC 184	Computer Science I or Computer Science II	4	CS 1971, 1981 or CS 1570, 1580	Intro to Programming Method and Lab (C++) or Intro to Programming and Lab (C++)	3
<i>See your advisor for course options.</i>					3
<i>See your advisor for course options.</i>					3
<i>No free electives applied to the degree.</i>					0
Group 2 Major Requirements		23	Group 2 Major Requirements		26
Group 1 Core Requirements		32	Group 1 Core Requirements		34
Total Hours		55	Total Hours*		60

\*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>Lindenwood University</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENG 170 or COM 110	English Composition II or Communications	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
HIS 105 or HIS 106 or PS 155	America: Colony to Civil War or America: Civil War to World Power or American National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	American History to 1877 or American History since 1877 or American Government	3
ESG 100	General Geology	4	GEO 1110/GE 1150	Intro to Physical Geology	3
EGR 331	Engineering Mechanics I -Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 332	Engineering Mechanics II -Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	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		18
Group 1 Core Requirements		32	Group 1 Core Requirements		34
Total Hours		48	Total Hours*		52

\*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>Lindenwood University</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
COM 110	Communications	3	SPMS 1185	Public Speaking	3
ENG 170	English Composition II	3	ENGLISH 1160	Writing and Research	3
HIS 105 or HIS 106 or PS 155	America: Colony to Civil War or America: Civil War to World Power or American National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	American History to 1877 or American History since 1877 or American Government	3
CSC 184	Computer Science II	4	CS 1570, 1580	Intro to Programming and Lab (C++)	4
CSC 360	Data Structures	3	CS 1575	Data Structures	3
EGR 331 and EGR 332	Engineering Mechanics I -Statics and Engineering Mechanics II- Dynamics	3	CIV ENG 2200 and MECH ENG 2350	Engineering Mechanics-Statics and Engineering Mechanics-Dynamics <small>(Both courses combined will satisfy a required engineering science elective.)</small>	6
EGR 361	Circuit Theory I	3	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
MTH 316	Linear Algebra I	3	MATH 3108	Linear Algebra <small>(Will satisfy a required math elective.)</small>	3
<i>See your advisor for course options.</i>			Humanities/Social Science Elective		3
<i>See your advisor for course options.</i>			Maximum Free Electives		3
Group 2 Major Requirements		25	Group 2 Major Requirements		34
Group 1 Core Requirements		32	Group 1 Core Requirements		34
Total Hours		57	Total Hours*		68

\*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>Lindenwood University</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
COM 110	Communications	3	SPMS 1185	Public Speaking	3
ENG 170	English Composition II	3	ENGLISH 1160	Writing and Research	3
HIS 105 or HIS 106 or PS 155	America: Colony to Civil War or America: Civil War to World Power or American National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	American History to 1877 or American History since 1877 or American Government	3
CSC 184	Computer Science II	4	CS 1570, 1580	Intro to Programming and Lab (C++)	4
EGR 331 and EGR 332	Engineering Mechanics I -Statics and Engineering Mechanics II- Dynamics	3	CIV ENG 2200 and MECH ENG 2350	Engineering Mechanics-Statics and Engineering Mechanics-Dynamics <small>(Both courses combined will satisfy a required engineering science elective.)</small>	6
EGR 361	Circuit Theory I	3	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
MTH 316	Linear Algebra I	3	MATH 3108	Linear Algebra	3
<i>See your advisor for course options.</i>			Humanities/Social Science Elective		3
<i>See your advisor for course options.</i>			Maximum Free Electives		3
Group 2 Major Requirements		22	Group 2 Major Requirements		31
Group 1 Core Requirements		32	Group 1 Core Requirements		34
Total Hours		54	Total Hours*		65

\*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>Lindenwood University</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
PSY 100	Principles of Psychology	3	PSYCH 1101	General Psychology	3
HIS 105 or HIS 106 or PS 155	America: Colony to Civil War or America: Civil War to World Power or American National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	American History to 1877 or American History since 1877 or American Government	3
ENG 170 or COM 110	English Composition II or Communications	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
EGR 361	Circuit Theory I	3	EE 2800	Circuit Analysis I	3
EGR 331	Engineering Mechanics I -Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 332	Engineering Mechanics II -Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	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		18	Group 2 Major Requirements		24
Group 1 Core Requirements		32	Group 1 Core Requirements		34
Total Hours		50	Total Hours*		58

\*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>Lindenwood University</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENG 170 or COM 110	English Composition II or Communications	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
HIS 105 or HIS 106	America: Colony to Civil War or America: Civil War to World Power	3	HISTORY 1300 or HISTORY 1310	American History to 1877 (preferred) or American History since 1877 (preferred)	3
ESG 100	General Geology	4	GEO 1110/GE 1150	Intro to Physical Geology	3
CHM 252, 262	General Chemistry II and Lab	5	CHEM 1320	General Chemistry II	3
BIO 110	Principles of Biology	3	BIO SCI 1113	General Biology	4
EGR 331	Engineering Mechanics I -Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 332	Engineering Mechanics II -Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	3
<i>See your advisor for course options.</i>			Humanities/Social Science Elective		3
<i>No free electives applied to the degree.</i>			Maximum Free Electives		0
Group 2 Major Requirements		24	Group 2 Major Requirements		25
Group 1 Core Requirements		32	Group 1 Core Requirements		34
Total Hours		56	Total Hours*		59

\*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>Lindenwood University</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENG 170 or COM 110	English Composition II or Communications	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
HIS 105 or HIS 106 or PS 155	America: Colony to Civil War or America: Civil War to World Power or American National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	American History to 1877 or American History since 1877 or American Government	3
ESG 100	General Geology	4	GEO 1110/GE 1150	Physical and Environmental Geology	3
EGR 331	Engineering Mechanics I -Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 332	Engineering Mechanics II -Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	3
BIO 110 or CHM 252, 262 or CHM 361	Principles of Biology or General Chemistry II or Organic Chemistry I	3	BIO SCI 1113 or CHEM 1320 or CHEM 2210	General Biology or General Chemistry II or Organic Chemistry 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		19	Group 2 Major Requirements		21
Group 1 Core Requirements		32	Group 1 Core Requirements		34
Total Hours		51	Total Hours*		55

\*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>Lindenwood University</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
HIS 105 or HIS 106 or PS 155	America: Colony to Civil War or America: Civil War to World Power or American National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	American History to 1877 or American History since 1877 or American Government	3
ENG 170 or COM 110	English Composition II or Communications	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
CSC 144 or CSC 184	Computer Science I or Computer Science II	4	CS 1971, 1981 or CS 1570, 1580	Intro to Programming Method and Lab (C++) or Intro to Programming and Lab (C++)	3 4
EGR 361	Circuit Theory I	3	EE 2800	Circuit Analysis I	3
EGR 331	Engineering Mechanics I -Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
MTH 316	Linear Algebra I	3	MATH 3108	Linear Algebra I <small>(Will satisfy the Advanced Math/Comp Sci elective requirement.)</small>	3
				Literature 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	9		Group 2 Major Requirements	15
	Group 1 Core Requirements	32		Group 1 Core Requirements	34
	Total Hours	41		Total Hours*	49

\*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>Lindenwood University</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENG 170 or COM 110	English Composition II or Communications	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
HIS 105 or HIS 106 or PS 155	America: Colony to Civil War or America: Civil War to World Power or American National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	American History to 1877 or American History since 1877 or American Government	3
EGR 331	Engineering Mechanics I -Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
CHM 252, 262	General Chemistry II and Lab	5	CHEM 1320	General Chemistry II	3
CHM 361 or EGR 361	Organic Chemistry I or Circuit Theory I	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
	<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	5
	Group 2 Major Requirements	17		Group 2 Major Requirements	26
	Group 1 Core Requirements	32		Group 1 Core Requirements	34
	Total Hours	49		Total Hours*	60

\*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>Lindenwood University</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENG 170	English Composition II	3	ENGLISH 1160	Writing and Research	3
HIS 105 or	America: Colony to Civil War or		HISTORY 1300 or	American History to 1877 or	
HIS 106 or	America: Civil War to World Power or	3	HISTORY 1310 or	American History since 1877 or	3
PS 155	American National Government		POL SCI 1200	American Government	
EGR 331	Engineering Mechanics I -Statics	3	CIV ENG 2200*	Engineering Mechanics-Statics	3
EGR 332	Engineering Mechanics II -Dynamics	3	MECH ENG 2350*	Engineering Mechanics-Dynamics	3
*The combination of CIV ENG 2200 and MECH ENG 2350 will be substituted for MECH ENG 2340.					
ESG 100	General Geology	4	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		16	Group 2 Major Requirements		21
Group 1 Core Requirements		32	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 Mining Engineering degree.

## Nuclear Engineering Group 2 Major Requirements

<u>Lindenwood University</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENG 170	English Composition II	3	ENGLISH 1160	Writing and Research	3
HIS 105 or	America: Colony to Civil War or		HISTORY 1300 or	American History to 1877 or	
HIS 106 or	America: Civil War to World Power or	3	HISTORY 1310 or	American History since 1877 or	3
PS 155	American National Government		POL SCI 1200	American Government	
3					
CSC 144 or	Computer Science I or		CS 1971, 1981 or	Intro to Programming Method and Lab (C++) or	3
CSC 184	Computer Science II	4	CS 1570, 1580	Intro to Programming and Lab (C++)	4
EGR 331	Engineering Mechanics I -Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	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		13	Group 2 Major Requirements		21
Group 1 Core Requirements		32	Group 1 Core Requirements		34
Total Hours		45	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>Lindenwood University</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
ENG 170	English Composition II	3	ENGLISH 1160	Writing and Research	3
HIS 105 or	America: Colony to Civil War or		HISTORY 1300 or	American History to 1877 or	
HIS 106 or	America: Civil War to World Power or	3	HISTORY 1310 or	American History since 1877 or	3
PS 155	American National Government		POL SCI 1200	American Government	
ESG 100	General Geology	4	GEO 1110/GE 1150	Physical and Environmental Geology	3
EGR 331	Engineering Mechanics I -Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 332	Engineering Mechanics II -Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	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		10	Group 2 Major Requirements		15
Group 1 Core Requirements		32	Group 1 Core Requirements		34
Total Hours		42	Total Hours*		49

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