

## Lincoln University — Missouri S&T

### General Engineering

Transfer Guide Effective as of Fall 2025

Complete Group 1 - Core Requirements and Group 2 - Major Requirements for major of choice.

Students are not required to complete all courses on this guide before transferring to Missouri S&T.

## 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>Lincoln University</u>			<u>Semester</u>	<u>Missouri S&amp;T</u>			
MAT 123	Calculus I	5		MATH 1214	Calculus I Grade of C or better is required.	4	
MAT 203	Calculus II	5		MATH 1215	Calculus II Grade of C or better is required.	4	
MAT 304	Calculus III	5		MATH 2222	Calculus III Grade of C or better is required.	4	
MAT 324	Differential Equations	3		MATH 3304	Elementary Differential Equations	3	
PHY 201	General Physics I	5		PHYSICS 1135	Engineering Physics I Grade of C or better is required.	4	
PHY 202	General Physics II	5		PHYSICS 2135	Engineering Physics II Grade of C or better is required.	4	
ENG 101	Composition and Rhetoric I	3		ENGLISH 1120	Exposition and Argumentation	3	
		Total Hours	31			Total Hours	26

## 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.

This transfer guide is published by Missouri University of Science and Technology and is in effect as of Fall 2025.  
Further information or updates are available from Missouri S&T Transfer Admissions at [transfer.mst.edu](mailto:transfer.mst.edu), [transfer@mst.edu](mailto:transfer@mst.edu), or 800-522-0938.

## Aerospace Engineering Group 2 Major Requirements

Lincoln University			Semester	Missouri S&T		
ENG 102 or SPT 206	Composition and Rhetoric II or Fundamentals of Speech	3		ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3
CHM 101	General Chemistry I	4		CHEM 1310, 1319	General Chemistry I and Lab <small>*CHEM 1310 will be substituted for CHEM 1305.</small>	5
CS 237	Intro to C++ Programming	3		CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
MAT 403 or MAT 415	Linear Algebra or Mathematical Statistics	3		MATH 3108 or STAT 3115	Linear Algebra I or Engineering Statistics <small>Satisfies the Advanced Math/Comp Sci elective requirement.</small>	3
PHI 203 or PHI 304	Ethics or Business Ethics and Society <small>or other engineering, business, bio, social ethics approved by advisor</small>	3		PHILOS 1130 or PHILOS 3235	How Should I Live? An Introduction to Ethics or Business Ethics <small>or other engineering, business, bio, social ethics approved by advisor</small>	3
<b>Humanities, Arts, and Social Sciences General Education Requirements</b> From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. <b>*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.</b>						
<b>Humanities and Fine Arts</b> Select 6 hours from at least two specific disciplines.						
ENG 210 or ENG 211 or ENG 207 or ENG 208 or <b>HIS 205*</b> or <b>HIS 206*</b> or ART 100 or MUS 200	Survey of English Literature I or Survey of English Literature II or Survey of American Literature Through 1865 or Survey of American Literature 1865-Present or <b>United States History I*</b> or <b>United States History II*</b> or Intro to Art or The World of Music <small>*Satisfies the State of Missouri government requirement.</small>	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or <b>HISTORY 1300*</b> or <b>HISTORY 1310*</b> or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or <b>American History to 1877*</b> or <b>American History Since 1877*</b> or Art Appreciation or Music Understanding and Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6
<b>Behavioral and Social Sciences</b> Select 6 hours from at least two specific disciplines.						
HIS 101 or <b>HIS 102*</b> or GEO 200 or PHI 102 or PSC 203* or PSY 101 or ECO 202 or ECO 201 or Foreign Language	World Civilization I or <b>World Civilization II*</b> or World Geography or Intro to Philosophy or <b>American National Government*</b> or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6		HISTORY 1100 or <b>HISTORY 1200*</b> or HISTORY 2110 or PHILOS 1105 or <b>POL SCI 1200*</b> or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or <b>Modern Western Civilization*</b> or World Regional Geography or Self and World: Intro to Philosophy or <b>American Government*</b> or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6
<b>Humanities, Arts, and Social Sciences</b> Select 3 hours.						
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3		HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
<i>No free electives applied to the degree.</i>				Maximum Free Electives		
Group 2 Major Requirements				Group 2 Major Requirements		
Group 1 Core Requirements				Group 1 Core Requirements		
Total Hours			62	Total Hours*		
				0		
				32		
				26		
				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

Lincoln University		Semester	Missouri S&T			
ENG 102 or SPT 206	Composition and Rhetoric II or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3	
CHM 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab <small>*CHEM 1310 will be substituted for CHEM 1305.</small>	5	
CET 212	Elementary Surveying	3	CIV ENG 2401	Fundamentals of Surveying	3	
MAT 415	Mathematical Statistics	3	STAT 3115	Engineering Statistics <small>Will be substituted for STAT 3113.</small>	3	
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 12 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. <b>*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.</b>						
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.						
ENG 210 or ENG 211 or ENG 207 or ENG 208 or HIS 205* or HIS 206* or ART 100 or MUS 200	Survey of English Literature I or Survey of English Literature II or Survey of American Literature Through 1865 or Survey of American Literature 1865-Present or United States History I* or United States History II* or Intro to Art or The World of Music <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6	
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines to include HISTORY 1200.						
HIS 102*	World Civilization II* <small>*Satisfies the State of Missouri government requirement.</small>	3	HISTORY 1200*	Modern Western Civilization* <small>*Satisfies the State of Missouri Government requirement.</small>	3	
PHI 102 or PSC 203* or PSY 101 or ECO 202 or ECO 201 or Foreign Language	Intro to Philosophy or American National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	3	PHILOS 1105 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Self and World: Intro to Philosophy or American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	3	
No free electives applied to the degree.		0	Maximum Free Electives		0	
Group 2 Major Requirements		25	Group 2 Major Requirements		26	
Group 1 Core Requirements		31	Group 1 Core Requirements		26	
Total Hours		56			Total Hours*	52
<small>*S&amp;T advisor permission is required to transfer more than 69 credits toward the S&amp;T Architectural Engineering degree.</small>						

## Biomedical Engineering-Biomanufacturing Group 2 Major Requirements

Lincoln University		Semester	Missouri S&T		
SPT 206	Fundamentals of Speech	3	SP&MS 1185	Principles of Speech	3
CHM 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 102	General Chemistry II	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2)	3
CHM 301, 303L	Organic Chemistry I and Lab	4	CHEM 2210, 2219	Organic Chemistry I and Lab	4
CHM 302, 304 or BIO 103, 104L or BIO 310	Organic Chemistry II and Lab or Principles of Biology and Lab or General Genetics	4	CHEM 2220, 2229 or BIO SCI 1113, 1219 or BIO SCI 2223	Organic Chemistry II and Lab or General Biology and Lab or General Genetics	4
BIO 312	Molecular Biology of the Cell	4	BIO SCI 2213, 2219	Cell Biology and Lab	4
BIO 208, 209L	Human Anatomy and Physiology and Lab	5	BIO SCI 3333, 3359	Anatomy and Physiology I and Lab	4
CS 338 or CS 237*	Object-Oriented Programming Using C++ or Intro to C++ Programming	3	CS 1500 or CS 1971,1981*	Computational Problem Solving or Intro to Programming Methodology and Lab* C++)	3
*Will be substituted for CS 1500.					
Humanities, Arts, and Social Sciences General Education Requirements					
From the options listed in each group below, select 9 hours to include					
6 hours Humanities and Fine Arts from at least two specific disciplines and					
3 hours Behavioral and Social Sciences.					
*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.					
Humanities and Fine Arts					
Select 6 hours from at least two specific disciplines.					
ENG 210 or ENG 211 or ENG 207 or ENG 208 or HIS 205* or HIS 206* or ART 100 or MUS 200	Survey of English Literature I or Survey of English Literature II or Survey of American Literature Through 1865 or Survey of American Literature 1865-Present or United States History I* or United States History II* or Intro to Art or The World of Music	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation	6
*Satisfies the State of Missouri government requirement.					
Behavioral and Social Sciences					
Select 3 hours.					
HIS 101 or HIS 102* or GEO 200 or PSC 203* or PSY 101 or ECO 202 or ECO 201 or Foreign Language	World Civilization I or World Civilization II* or World Geography or American National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language	3	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language	3
*Satisfies the State of Missouri government requirement.					
No free electives applied to the degree.		0	Maximum Free Electives		0
Group 2 Major Requirements		40	Group 2 Major Requirements		39
Group 1 Core Requirements		31	Group 1 Core Requirements		26
Total Hours		71			Total Hours*
*S&T advisor permission is required to transfer more than 69 credit hours toward the degree.					

## Biomedical Engineering-Biomaterials Group 2 Major Requirements

Lincoln University		Semester	Missouri S&T		
SPT 206	Fundamentals of Speech	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHM 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 102	General Chemistry II	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3
CHM 301, 303L	Organic Chemistry I and Lab	4	CHEM 2210, 2219*	Organic Chemistry I and Lab* *CHEM 2219 Lab applies to the degree as a Track Elective (non-engineering).	4
CHM 302, 304	Organic Chemistry II and Lab	4	CHEM 2220, 2229*	Organic Chemistry II and Lab* CHEM 2229 Lab applies to the degree as a Track Elective (non-engineering).	4
BIO 103, 104L	Principles of Biology and Lab	4	BIO SCI 1113*, 1219*	General Biology* and Lab* *Applies to degree as Track Elective (Non-engineering).	4
BIO 312	Molecular Biology of the Cell	4	BIO SCI 2213, 2219	Cell Biology and Lab	4
BIO 208, 209L	Human Anatomy and Physiology and Lab	5	BIO SCI 3333, 3359	Human Anatomy and Physiology I and Lab	4
CS 338 or CS 237*	Object-Oriented Programming Using C++ or Intro to C++ Programming	3	CS 1500 or CS 1971,1981*	Computational Problem Solving or Intro to Programming Methodology and Lab* C++) *Will be substituted for CS 1500.	3
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 9 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 3 hours Behavioral and Social Sciences.  *At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.					
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.					
ENG 210 or ENG 211 or ENG 207 or ENG 208 or HIS 205* or HIS 206* or ART 100 or MUS 200	Survey of English Literature I or Survey of English Literature II or Survey of American Literature Through 1865 or Survey of American Literature 1865-Present or United States History I* or United States History II* or Intro to Art or The World of Music *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
Behavioral and Social Sciences Select 3 hours.					
HIS 101 or HIS 102* or GEO 200 or PSC 203* or PSY 101 or ECO 202 or ECO 201 or Foreign Language	World Civilization I or World Civilization II* or World Geography or American National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3
No free electives applied to the degree.		0	Maximum Free Electives		0
Group 2 Major Requirements		44	Group 2 Major Requirements		43
Group 1 Core Requirements		31	Group 1 Core Requirements		26
Total Hours		75	Total Hours*		69
*S&T advisor permission is required to transfer more than 69 credits toward the S&T Biomedical Engineering degree.					

## Ceramic Engineering Group 2 Major Requirements

Lincoln University			Semester	Missouri S&T	
ENG 102 or SPT 206	Composition and Rhetoric II or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
CHM 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 102	General Chemistry II	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2)	3
				*CHEM 1510 is not a degree requirement, transfers as general elective credit.	
CHM 301, 303L	Organic Chemistry I and Lab	4	CHEM 2210, 2219*	Organic Chemistry I (3) and Lab* (1)	3
				CHEM 2210 will satisfy the advanced chemistry elective requirement. *CHEM 2219 is not an S&T degree requirement, will transfer as general elective credit.	
MAT 415	Mathematical Statistics	3	STAT 3115	Engineering Statistics	3
PHY 320	Modern Physics	3	PHYS 2305	Intro to Modern Physics	3
Humanities, Arts, and Social Sciences General Education Requirements					
From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines.					
*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.					
Humanities and Fine Arts					
Select 6 hours from at least two specific disciplines.					
ENG 210 or ENG 211 or ENG 207 or ENG 208 or HIS 205* or HIS 206* or ART 100 or MUS 200	Survey of English Literature I or Survey of English Literature II or Survey of American Literature Through 1865 or Survey of American Literature 1865-Present or United States History I* or United States History II* or Intro to Art or The World of Music *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
Behavioral and Social Sciences					
Select 6 hours from at least two specific disciplines.					
HIS 101 or HIS 102* or GEO 200 or PHI 102 or PSC 203* or PSY 101 or ECO 202 or ECO 201 or Foreign Language	World Civilization I or World Civilization II* or World Geography or Intro to Philosophy or American National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or Self and World: Intro to Philosophy or American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6
Humanities, Arts, and Social Sciences					
Select 3 hours.					
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
No free electives applied to the degree.		0	Maximum Free Electives		0
Group 2 Major Requirements		36	Group 2 Major Requirements		35
Group 1 Core Requirements		31	Group 1 Core Requirements		26
Total Hours		67			Total Hours*
					61
*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

Lincoln University		Semester	Missouri S&T		
SPT 206	Fundamentals of Speech	3	SP&MS 1185	Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3
CHM 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 102	General Chemistry II	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis* (2) <small>*CHEM 1510 is not a degree requirement, transfers as general elective credit.</small>	3
CHM 301, 303L	Organic Chemistry I and Lab	4	CHEM 2210, 2219*	Organic Chemistry I and Lab* <small>*CHEM 2210 is a degree requirement. CHEM 2219 applies to the degree as 1 of 9 required science elective credits See note below .</small>	4
CHM 302 or BIO 407	Organic Chemistry II (3) or Molecular Biology of the Cell (4)	7	CHEM 2220 or BIO SCI 2213, 2219	Organic Chemistry II (3) or Cell Biology and Lab (4) <small>Will partially satisfy the 9-hour science elective requirement.</small>	7
CS 338 or CS 237*	Object-Oriented Programming Using C++ or Intro to C++ Programming	3	CS 1500 or CS 1971,1981*	Computational Problem Solving or Intro to Programming Methodology and Lab* C++) <small>*Will be substituted for CS 1500.</small>	3
MAT 415	Mathematical Statistics	3	STAT 3115	Engineering Statistics* <small>*Will be substituted for STAT 3113.</small>	3
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 12 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. <b>*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.</b>					
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.					
ENG 210 or ENG 211 or ENG 207 or ENG 208 or HIS 205* or HIS 206* or ART 100 or MUS 200	Survey of English Literature I or Survey of English Literature II or Survey of American Literature Through 1865 or Survey of American Literature 1865-Present or United States History I* or United States History II* or Intro to Art or The World of Music <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
HIS 101 or HIS 102* or GEO 200 or PHI 102 or PSC 203* or PSY 101 or ECO 202 or ECO 201 or Foreign Language	World Civilization I or World Civilization II* or World Geography or Intro to Philosophy or American National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or Self and World: Intro to Philosophy or American Government*or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6
No free electives applied to the degree.		0	Maximum Free Electives		0
Group 2 Major Requirements		40	Group 2 Major Requirements		40
Group 1 Core Requirements		31	Group 1 Core Requirements		26
Total Hours		71	Total Hours*		66
<small>*S&amp;T advisor permission is required to transfer more than 68 credits toward the S&amp;T Chemical Engineering degree.</small>					

## Civil Engineering Group 2 Major Requirements

Lincoln University		Semester	Missouri S&T		
ENG 102 or SPT 206	Composition and Rhetoric II or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech <i>Applies to degree as Gen Ed Communication requirement.</i>	3
CHM 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CET 212	Elementary Surveying	3	CIV ENG 2401	Fundamentals of Surveying	3
MAT 415	Mathematical Statistics	3	STAT 3115	Engineering Statistics* <i>*Will be substituted for STAT 3113.</i>	3
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. <b>*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.</b>					
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.					
ENG 210 or ENG 211 or ENG 207 or ENG 208 or HIS 205* or HIS 206* or ART 100 or MUS 200	Survey of English Literature I or Survey of English Literature II or Survey of American Literature Through 1865 or Survey of American Literature 1865-Present or United States History I* or United States History II* or Intro to Art or The World of Music <i>*Satisfies the State of Missouri government requirement.</i>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation <i>*Satisfies the State of Missouri government requirement.</i>	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
HIS 101 or HIS 102* or GEO 200 or PHI 102 or PSC 203* or PSY 101 or ECO 202 or ECO 201 or Foreign Language	World Civilization I or World Civilization II* or World Geography or Intro to Philosophy or American National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language <i>*Satisfies the State of Missouri government requirement.</i>	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or Self and World: Intro to Philosophy or American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <i>*Satisfies the State of Missouri government requirement.</i>	6
Humanities, Arts, and Social Sciences Select 3 hours.					
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
No free electives applied to the degree.		0	Maximum Free Electives		0
Group 2 Major Requirements		28	Group 2 Major Requirements		29
Group 1 Core Requirements		31	Group 1 Core Requirements		26
Total Hours		59			Total Hours* 55
<i>*S&amp;T advisor permission is required to transfer more than 69 credits toward the S&amp;T Civil Engineering degree.</i>					

\*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

Lincoln University			Semester	Missouri S&T	
SPT 206	Fundamentals of Speech	3	SPMS 1185	Principles of Speech	3
CHM 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CS 338 or CS 237*	Object-Oriented Programming Using C++ or Intro to C++ Programming	3	COMP SCI 1500 or COMP SCI 1971,1981*	Computational Problem Solving or Intro to Programming Methodology and Lab*	3
PHY 320 or CHM 301 or BIO 407 or BIO 310	Modern Physics (3) or Organic Chemistry I (3) or Molecular Biology (4) or General Genetics (4)	3	PHYSICS 2305 or CHEM 2210 or BIO SCI 2213 or BIO SCI 2223	Intro to Modern Physics or Organic Chemistry I or Cell Biology or General Genetics	3
MAT 403 or MAT 315	Linear Algebra or Techniques of Mathematical Proofs	3	MATH 3108 or MATH 3109	Linear Algebra or Foundations of Mathematics	3
MAT 415	Mathematical Statistics	3	STAT 3115	Engineering Statistics	3
Humanities, Arts, and Social Sciences General Education Requirements					
From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines.					
*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.					
Humanities and Fine Arts					
Select 6 hours from at least two specific disciplines.					
ENG 210 or ENG 211 or ENG 207 or ENG 208 or HIS 205* or HIS 206* or ART 100 or MUS 200	Survey of English Literature I or Survey of English Literature II or Survey of American Literature Through 1865 or Survey of American Literature 1865-Present or United States History I* or United States History II* or Intro to Art or The World of Music	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation	6
*Satisfies the State of Missouri government requirement.					
Behavioral and Social Sciences					
Select 6 hours from at least two specific disciplines.					
HIS 101 or HIS 102* or GEO 200 or PHI 102 or PSC 203* or PSY 101 or ECO 202 or ECO 201 or Foreign Language	World Civilization I or World Civilization II* or World Geography or Intro to Philosophy or American National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or Self and World: Intro to Philosophy or American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language	6
*Satisfies the State of Missouri government requirement.					
Humanities, Arts, and Social Sciences					
Select 3 hours.					
ENG 102	Composition and Rhetoric II	3	ENGLISH 1160	Writing and Research	3
Electives	Maximum Free Electives	3	Electives	Maximum Free Electives	3
	Group 2 Major Requirements	37		Group 2 Major Requirements	38
	Group 1 Core Requirements	31		Group 1 Core Requirements	26
	Total Hours	68		Total Hours*	64
*S&T advisor permission is required to transfer more than 68 credits toward the S&T Computer Engineering degree.					

\*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

Lincoln University		Semester	Missouri S&T		
SPT 206	Fundamentals of Speech	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHM 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CS 338 or CS 237*	Object-Oriented Programming Using C++ or Intro to C++ Programming	3	CS 1500 or CS 1971,1981*	Computational Problem Solving or Intro to Programming Methodology and Lab* C++) *Will be substituted for CS 1500.	3
PHY 320 or CHM 301 or BIO 407 or BIO 310	Modern Physics (3) or Organic Chemistry I (3) or Molecular Biology (4) or General Genetics (4)	3	PHYSICS 2305 or CHEM 2210 or BIO SCI 2213 or BIO SCI 2223	Intro to Modern Physics or Organic Chemistry I or Cell Biology or General Genetics Satisfies a required engineering/science elective.	3
MAT 403	Linear Algebra	3	MATH 3108	Linear Algebra	3
MAT 415	Mathematical Statistics	3	STAT 3115	Engineering Statistics Will be substituted for STAT 3117.	3
Humanities, Arts, and Social Sciences General Education Requirements					
From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines.					
*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.					
Humanities and Fine Arts					
Select 6 hours from at least two specific disciplines.					
ENG 210 or ENG 211 or ENG 207 or ENG 208 or HIS 205* or HIS 206* or ART 100 or MUS 200	Survey of English Literature I or Survey of English Literature II or Survey of American Literature Through 1865 or Survey of American Literature 1865-Present or United States History I* or United States History II* or Intro to Art or The World of Music *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
Behavioral and Social Sciences					
Select 6 hours from at least two specific disciplines.					
HIS 101 or HIS 102* or GEO 200 or PHI 102 or PSC 203* or PSY 101 or ECO 202 or ECO 201 or Foreign Language	World Civilization I or World Civilization II* or World Geography or Intro to Philosophy or American National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or Self and World: Intro to Philosophy or American Government*or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6
Humanities, Arts, and Social Sciences					
Select 3 hours.					
ENG 102	Composition and Rhetoric II	3	ENGLISH 1160	Writing and Research	3
Electives	Maximum Free Electives	6	Electives	Maximum Free Electives	6
	Group 2 Major Requirements	40		Group 2 Major Requirements	41
	Group 1 Core Requirements	31		Group 1 Core Requirements	26
	Total Hours	71		Total Hours*	67
*S&T advisor permission is required to transfer more than 68 credits toward the S&T Electrical Engineering degree.					

\*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>Lincoln University</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>			
SPT 206	Fundamentals of Speech	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
CHM 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
CS 237	Intro to C++ Programming	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3	
MAT 415	Mathematical Statistics	3	STAT 3115	Engineering Statistics	3	
<b>Humanities, Arts, and Social Sciences General Education Requirements</b>						
From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines.						
<b>*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.</b>						
<b>Humanities and Fine Arts</b>						
Select 6 hours from at least two specific disciplines.						
ENG 210 or ENG 211 or ENG 207 or ENG 208 or <b>HIS 205*</b> or <b>HIS 206*</b> or ART 100 or MUS 200	Survey of English Literature I or Survey of English Literature II or Survey of American Literature Through 1865 or Survey of American Literature 1865-Present or <b>United States History I*</b> or <b>United States History II*</b> or Intro to Art or The World of Music <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or <b>HISTORY 1300*</b> or <b>HISTORY 1310*</b> or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or <b>American History to 1877*</b> or <b>American History Since 1877*</b> or Art Appreciation or Music Understanding and Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6	
<b>Behavioral and Social Sciences</b>						
Select 6 hours from at least two specific disciplines to include PSYCH 1101.						
PSY 101	General Psychology	3	PSYCH 1101	General Psychology Required	3	
HIS 101 or <b>HIS 102*</b> or GEO 200 or PHI 102 or PSY 101 or ECO 202 or ECO 201 or Foreign Language	World Civilization I or <b>World Civilization II*</b> or World Geography or Intro to Philosophy or <b>American National Government*</b> or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	3	HISTORY 1100 or <b>HISTORY 1200*</b> or HISTORY 2110 or PHILOS 1105 or <b>POL SCI 1200*</b> or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or <b>Modern Western Civilization*</b> or World Regional Geography or Self and World: Intro to Philosophy or <b>American Government*</b> or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	3	
<b>Humanities, Arts, and Social Sciences</b>						
Select 3 hours.						
ENG 102	Composition and Rhetoric II	3	ENGLISH 1160	Writing and Research	3	
<i>No free electives applied to the degree.</i>		0	Electives	Maximum Free Electives	0	
Group 2 Major Requirements		28	Group 2 Major Requirements		29	
Group 1 Core Requirements		31	Group 1 Core Requirements		26	
Total Hours		59			Total Hours*	61
<small>*S&amp;T advisor permission is required to transfer more than 61 credits toward the S&amp;T Engineering Management degree.</small>						

## Environmental Engineering Group 2 Major Requirements

Lincoln University		Semester	Missouri S&T			
ENG 102 or SPT 206	Composition and Rhetoric II or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3	
CHM 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
CHM 102	General Chemistry II	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not a degree requirement, transfers as general elective credit.</small>	3	
BIO 103	Principles of Biology	3	BIO SCI 1113, 1219*	General Biology (3) and Lab* (1) <small>*The lab is not a degree requirement, transfers as general elective credit.</small>	3	
MAT 415	Mathematical Statistics	3	STAT 3115	Engineering Statistics* <small>*Will be substituted for STAT 3113.</small>	3	
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 12 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. <b>*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.</b>						
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.						
ENG 210 or ENG 211 or ENG 207 or ENG 208 or HIS 205* or HIS 206* or ART 100 or MUS 200	Survey of English Literature I or Survey of English Literature II or Survey of American Literature Through 1865 or Survey of American Literature 1865-Present or <b>United States History I*</b> or <b>United States History II*</b> or Intro to Art or The World of Music <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or <b>HISTORY 1300*</b> or <b>HISTORY 1310*</b> or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or <b>American History to 1877*</b> or <b>American History Since 1877*</b> or Art Appreciation or Music Understanding and Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6	
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines to include HISTORY 1200						
HIS 102*	<b>World Civilization II*</b> <small>*Satisfies the State of Missouri government requirement.</small>	3	<b>HISTORY 1200*</b>	<b>Modern Western Civilization*</b> <small>*Satisfies the State of Missouri Government requirement.</small>	3	
PHI 102 or PSC 203* or PSY 101 or ECO 202 or ECO 201 or Foreign Language	Intro to Philosophy or <b>American National Government*</b> or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	3	PHILOS 1105 or <b>POL SCI 1200*</b> or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Self and World: Intro to Philosophy or <b>American Government*</b> or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	3	
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives		0	
Group 2 Major Requirements		29	Group 2 Major Requirements		29	
Group 1 Core Requirements		31	Group 1 Core Requirements		26	
Total Hours		60			Total Hours*	55
<small>*S&amp;T advisor permission is required to transfer more than 69 credits toward the S&amp;T Environmental Engineering degree.</small>						

## Geological Engineering Group 2 Major Requirements

Lincoln University		Semester	Missouri S&T		
CHM 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CS 338 or	Object-Oriented Programming Using C++ or	3	CS 1500 or	Computational Problem Solving or	3
CS 237	Intro to C++ Programming		CS 1971, 1981	Intro to Programming Methodology and Lab	
MAT 415	Mathematical Statistics	3	STAT 3115	Engineering Statistics	3
Humanities, Arts, and Social Sciences General Education Requirements					
From the options listed in each group below, select 15 hours to include					
6 hours Humanities and Fine Arts from at least two specific disciplines and					
6 hours Behavioral and Social Sciences from at least two specific disciplines.					
*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.					
Humanities and Fine Arts					
Select 6 hours from at least two specific disciplines.					
ENG 210 or	Survey of English Literature I or	6	ENGLISH 1211 or	British Literature I: The Beginnings to 1800 or	6
ENG 211 or	Survey of English Literature II or		ENGLISH 1212 or	British Literature II: 1800 to Present	
ENG 207 or	Survey of American Literature Through 1865 or		ENGLISH 1221 or	American Literature: 1600 to 1865 or	
ENG 208 or	Survey of American Literature 1865-Present or		ENGLISH 1222 or	American Literature: 1865 to Present or	
HIS 205* or	United States History I* or		HISTORY 1300* or	American History to 1877* or	
HIS 206* or	United States History II* or		HISTORY 1310* or	American History Since 1877* or	
ART 100 or	Intro to Art or		ART 1180 or	Art Appreciation or	
MUS 200	The World of Music	MUSIC 1150	Music Understanding and Appreciation		
*Satisfies the State of Missouri government requirement.					
Behavioral and Social Sciences					
Select 6 hours from at least two specific disciplines.					
HIS 101 or	World Civilization I or	6	HISTORY 1100 or	Early Western Civilization or	6
HIS 102* or	World Civilization II* or		HISTORY 1200* or	Modern Western Civilization* or	
GEO 200 or	World Geography or		HISTORY 2110 or	World Regional Geography or	
PHI 102 or	Intro to Philosophy or		PHILOS 1105 or	Self and World: Intro to Philosophy or	
PSC 203* or	American National Government* or		POL SCI 1200* or	American Government* or	
PSY 101 or	General Psychology or		PSYCH 1101 or	General Psychology or	
ECO 202 or	Microeconomics or		ECON 1100 or	Principles of Microeconomics or	
ECO 201 or	Macroeconomics or	ECON 1200 or	Principles of Macroeconomics or		
Foreign Language	Elementary or Intermediate Foreign Language	Foreign Language	Elementary or Intermediate Foreign Language		
*Satisfies the State of Missouri government requirement.					
Humanities, Arts, and Social Sciences					
Select 3 hours.					
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
No free electives applied to the degree.		0	Maximum Free Electives		0
Group 2 Major Requirements		25	Group 2 Major Requirements		26
Group 1 Core Requirements		31	Group 1 Core Requirements		26
Total Hours		56	Total Hours*		52
*S&T advisor permission is required to transfer more than 65 credits toward the S&T Geological Engineering degree.					

## Mechanical Engineering Group 2 Major Requirements

Lincoln University		Semester	Missouri S&T		
ENG 102 or SPT 206	Composition and Rhetoric II or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3
CHM 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab <small>*CHEM 1310 will be substituted for CHEM 1305.</small>	5
CS 237	Intro to C++ Programming	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
MAT 403 or MAT 415	Linear Algebra or Mathematical Statistics	3	MATH 3108 or STAT 3115	Linear Algebra I or Engineering Statistics <small>Will satisfy the Advanced Math/Comp Sci elective requirement.</small>	3
Humanities, Arts, and Social Sciences General Education Requirements					
From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines.					
*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.					
Humanities and Fine Arts					
Select 6 hours from at least two specific disciplines.					
ENG 210 or ENG 211 or ENG 207 or ENG 208 or HIS 205* or HIS 206* or ART 100 or MUS 200	Survey of English Literature I or Survey of English Literature II or Survey of American Literature Through 1865 or Survey of American Literature 1865-Present or United States History I* or United States History II* or Intro to Art or The World of Music <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6
Behavioral and Social Sciences					
Select 6 hours from at least two specific disciplines.					
HIS 101 or HIS 102* or GEO 200 or PHI 102 or PSC 203* or PSY 101 or ECO 202 or ECO 201 or Foreign Language	World Civilization I or World Civilization II* or World Geography or Intro to Philosophy or American National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or Self and World: Intro to Philosophy or American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6
Humanities, Arts, and Social Sciences					
Select 3 hours.					
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
No free electives applied to the degree.		0	Maximum Free Electives		0
Group 2 Major Requirements		28	Group 2 Major Requirements		29
Group 1 Core Requirements		31	Group 1 Core Requirements		26
Total Hours		59	Total Hours*		55
<small>*S&amp;T advisor permission is required to transfer more than 68 credits toward the S&amp;T Mechanical Engineering degree.</small>					

## Metallurgical Engineering Group 2 Major Requirements

Lincoln University		Semester	Missouri S&T		
ENG 102 or SPT 206	Composition and Rhetoric II or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3
MAT 415	Mathematical Statistics	3	STAT 3115	Engineering Statistics	3
CHM 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 102	General Chemistry II	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not an S&amp;T degree requirement. Will transfer as general credit.</small>	3
CHM 301 or CHM 401 or PHY 320	Organic Chemistry I or Physical Chemistry I or Modern Physics	3	CHEM 2210 or CHEM 3410 or PHYSICS 2305	Organic Chemistry I or Chemical Thermodynamics I or Intro to Modern Physics or <small>Not specifically required for the degree but will satisfy Out-of-Department Technical Elective Requirement.</small>	3
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. <b>*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.</b>					
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.					
ENG 210 or ENG 211 or ENG 207 or ENG 208 or <b>HIS 205*</b> or <b>HIS 206*</b> or ART 100 or MUS 200	Survey of English Literature I or Survey of English Literature II or Survey of American Literature Through 1865 or Survey of American Literature 1865-Present or <b>United States History I*</b> or <b>United States History II*</b> or Intro to Art or The World of Music <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or <b>HISTORY 1300*</b> or <b>HISTORY 1310*</b> or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or <b>American History to 1877*</b> or <b>American History Since 1877*</b> or Art Appreciation or Music Understanding and Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
HIS 101 or <b>HIS 102*</b> or GEO 200 or PHI 102 or PSC 203* or PSY 101 or ECO 202 or ECO 201 or Foreign Language	World Civilization I or <b>World Civilization II*</b> or World Geography or Intro to Philosophy or <b>American National Government*</b> or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6	HISTORY 1100 or <b>HISTORY 1200*</b> or HISTORY 2110 or PHILOS 1105 or <b>POL SCI 1200*</b> or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or <b>Modern Western Civilization*</b> or World Regional Geography or Self and World: Intro to Philosophy or <b>American Government*</b> or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6
Humanities, Arts, and Social Sciences Select 3 hours.					
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
Maximum Free Electives		3	Maximum Free Electives		3
Group 2 Major Requirements		35	Group 2 Major Requirements		35
Group 1 Core Requirements		31	Group 1 Core Requirements		26
Total Hours		66			Total Hours*
<small>*S&amp;T advisor permission is required to transfer more than 68 credits toward the S&amp;T Metallurgical Engineering degree.</small>					

## Mining Engineering Group 2 Major Requirements

Lincoln University		Semester	Missouri S&T		
ENG 102 or SPT 206	Composition and Rhetoric II or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech <small>Applies to degree as Gen.Ed Communication requirement.</small>	3
MAT 415	Mathematical Statistics	3	STAT 3115	Engineering Statistics	3
CHM 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5
Humanities, Arts, and Social Sciences General Education Requirements					
From the options listed in each group below, select 12 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines.					
*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.					
Humanities and Fine Arts					
Select 6 hours from at least two specific disciplines.					
ENG 210 or ENG 211 or ENG 207 or ENG 208 or HIS 205* or HIS 206* or ART 100 or MUS 200	Survey of English Literature I or Survey of English Literature II or Survey of American Literature Through 1865 or Survey of American Literature 1865-Present or United States History I* or United States History II* or Intro to Art or The World of Music <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6
Behavioral and Social Sciences					
Select 6 hours from at least two specific disciplines.					
HIS 101 or HIS 102* or GEO 200 or PHI 102 or PSC 203* or PSY 101 or ECO 202 or ECO 201 or Foreign Language	World Civilization I or World Civilization II* or World Geography or Intro to Philosophy or American National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or Self and World: Intro to Philosophy or American Government*or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6
No free electives applied to the degree.		0	Maximum Free Electives		0
Group 2 Major Requirements		22	Group 2 Major Requirements		23
Group 1 Core Requirements		31	Group 1 Core Requirements		26
Total Hours		53	Total Hours*		49
<small>*S&amp;T advisor permission is required to transfer more than 68 credits toward the S&amp;T Mining Engineering degree.</small>					

\*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

Lincoln University		Semester	Missouri S&T		
ENG 102 or SPT 206	Composition and Rhetoric II or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3
CHM 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CS 237	Intro to C++ Programming	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
MAT 403 or	Linear Algebra or	3	MATH 3108 or	Linear Algebra or	3
MAT 315	Techniques of Mathematical Proofs		MATH 3109	Foundations of Mathematics	
MAT 415	Mathematical Statistics	3	STAT 3115	Engineering Statistics	3
PHY 320	Modern Physics	3	PHYSICS 2305	Intro to Modern Physics	3
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. <b>*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.</b>					
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.					
ENG 210 or ENG 211 or ENG 207 or ENG 208 or HIS 205* or HIS 206* or ART 100 or MUS 200	Survey of English Literature I or Survey of English Literature II or Survey of American Literature Through 1865 or Survey of American Literature 1865-Present or United States History I* or United States History II* or Intro to Art or The World of Music <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
ECO 202 or ECO 201	Microeconomics or Macroeconomics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3
HIS 101 or HIS 102* or GEO 200 or PHI 102 or PSC 203* or PSY 101 or Foreign Language	World Civilization I or World Civilization II* or World Geography or Intro to Philosophy or American National Government* or General Psychology or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	3	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or POL SCI 1200* or PSYCH 1101 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or Self and World: Intro to Philosophy or American Government* or General Psychology or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	3
Humanities, Arts, and Social Sciences Select 3 hours.					
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
Maximum Free Electives		0	Maximum Free Electives		0
Group 2 Major Requirements		34	Group 2 Major Requirements		35
Group 1 Core Requirements		31	Group 1 Core Requirements		26
Total Hours		65			Total Hours* 61
<small>*S&amp;T advisor permission is required to transfer more than 69 credits toward the S&amp;T Nuclear Engineering degree.</small>					

## Petroleum Engineering Group 2 Major Requirements

Lincoln University		Semester	Missouri S&T			
ENG 102 or SPT 206	Composition and Rhetoric II or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3	
CHM 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
CS 338	Object-Oriented Programming Using C++	3	COMP SCI 1500	Computational Problem Solving	3	
Humanities, Arts, and Social Sciences General Education Requirements						
From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines.						
*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.						
Humanities and Fine Arts						
Select 6 hours from at least two specific disciplines.						
ENG 210 or ENG 211 or ENG 207 or ENG 208 or HIS 205* or HIS 206* or ART 100 or MUS 200	Survey of English Literature I or Survey of English Literature II or Survey of American Literature Through 1865 or Survey of American Literature 1865-Present or United States History I* or United States History II* or Intro to Art or The World of Music <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6	
Behavioral and Social Sciences						
Select 6 hours from at least two specific disciplines.						
HIS 101 or HIS 102* or GEO 200 or PHI 102 or PSC 203* or PSY 101 or ECO 202 or ECO 201 or Foreign Language	World Civilization I or World Civilization II* or World Geography or Intro to Philosophy or American National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or Self and World: Intro to Philosophy or American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6	
Humanities, Arts, and Social Sciences						
Select 3 hours.						
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	
No free electives applied to the degree.		0	Maximum Free Electives		0	
Group 2 Major Requirements		25	Group 2 Major Requirements		26	
Group 1 Core Requirements		31	Group 1 Core Requirements		26	
Total Hours		56			Total Hours*	52
<small>*S&amp;T advisor permission is required to transfer more than 69 credits toward the S&amp;T Petroleum Engineering degree.</small>						