

Lincoln Land Community College — 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 Land Community College</u>			<u>Semester</u>	<u>Missouri S&T</u>		
MAT 131	Calculus and Analytic Geometry I	5	MATH 1214	Calculus I	Grade of C or better is required.	4
MAT 132	Calculus and Analytic Geometry II	5	MATH 1215	Calculus II	Grade of C or better is required.	4
MAT 233	Calculus and Analytic Geometry III	4	MATH 2222	Calculus III	Grade of C or better is required.	4
MAT 235	Differential Equations	4	MATH 3304	Elementary Differential Equations		3
PHY 201 and PHY 202	Physics I and Physics II Both courses must be taken to receive full transfer credit.	8	PHYSICS 1135 and PHYSICS 2135	Engineering Physics I and Engineering Physics II	Grade of C or better is required. The combination of LLCC PHY 201 and 202 is equivalent to the combination of S&T PHYSICS 1135 and 2135. Both LLCC courses must be taken to receive full transfer credit.	8
EGL 101	Composition I	3	ENGLISH 1120	Exposition and Argumentation		3
		Total Hours			Total Hours	26
		29				

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, transfer@mst.edu, or 800-522-0938.

Aerospace Engineering Group 2 Major Requirements

<u>Lincoln Land Community College</u>			<u>Semester</u>	<u>Missouri S&T</u>		
EGL 102 or CMN 101	Composition II or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3	
CHE 101	General Chemistry I	4	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5	
ENG 270	Circuit Analysis	3	ELEC ENG 2800	Electrical Circuits	3	
ENG 220	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
ENG 240	Mechanics of Materials	4	CIV ENG 2210	Mechanics of Materials	3	
MAT 215	Intro to Linear Algebra	3	MATH 3108	Linear Algebra I Satisfies the Advanced Math/Comp Sci elective requirement.	3	
Ethics	Ethics Elective Any engineering, business, bio, social ethics approved by advisor.	3	Ethics	Ethics Elective Any engineering, business, bio, social ethics approved by advisor.	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.						
EGL 201 or EGL 202 or EGL 210 or EGL 211 or HIS 111* or HIS 112* or ART 101 or MUS 104	Survey of British Literature I or Survey of British Literature I or Survey of American Literature: Colonial Era to Civil War or Survey of American Literature: Civil War to Present or United States History to 1877* or United States History Since 1877* or Art Appreciation or Music Appreciation *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 GEG 102 or PHI 204 or PHI 201 or POS 101* or PSY 101 or ECO 131 or ECO 132 or Foreign Language	History of Western Civilization I or History of Western Civilization II* or World Regional Geography or Intro to Philosophy or Intro to Logic or American Politics* or Intro to Psychology or Principles of Economics I (Microeconomics) or Principles of Economics II (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 PHILOS 1115 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 Logic and Reasoning: An Introduction 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	
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives		0	
Group 2 Major Requirements		38	Group 2 Major Requirements		38	
Group 1 Core Requirements		29	Group 1 Core Requirements		26	
Total Hours		67			Total Hours* 64	
*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>Lincoln Land Community College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
EGL 102 or CMN 101	Composition II or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
CHE 101	General Chemistry I	4	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
ENG 220	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
ENG 221	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
ENG 240	Mechanics of Materials	4	CIV ENG 2210	Mechanics of Materials	3
BDM 120	Surveying and Building Layout	3	CIV ENG 2401	Fundamentals of Surveying	3
GEO 101	Physical Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	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. *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.					
EGL 201 or EGL 202 or EGL 210 or EGL 211 or HIS 111* or HIS 112* or ART 101 or MUS 104	Survey of British Literature I or Survey of British Literature I or Survey of American Literature: Colonial Era to Civil War or Survey of American Literature: Civil War to Present or United States History to 1877* or United States History Since 1877* or Art Appreciation or Music Appreciation *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 to include HISTORY 1200.					
HIS 102*	History of Western Civilization II* *Satisfies the State of Missouri Government requirement.	3	HISTORY 1200*	Modern Western Civilization* *Satisfies the State of Missouri Government requirement.	3
PHI 204 or PHI 201 or POS 101* or PSY 101 or ECO 131 or ECO 132 or Foreign Language	Intro to Philosophy or Intro to Logic or American Politics* or Intro to Psychology or Principles of Economics I (Microeconomics) or Principles of Economics II (Macroeconomics) or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3	PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction 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
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives		0
Group 2 Major Requirements		36	Group 2 Major Requirements		34
Group 1 Core Requirements		29	Group 1 Core Requirements		26
Total Hours		65			Total Hours* 60
*S&T advisor permission is required to transfer more than 69 credits toward the S&T Architectural Engineering degree.					

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

Biomedical Engineering-Biomanufacturing Group 2 Major Requirements

Lincoln Land Community College		Semester	Missouri S&T			
CMN 101	Fundamentals of Speech	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
CHE 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
CHE 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	
CHE 201	Organic Chemistry I	5	CHEM 2210, 2219	Organic Chemistry I and Lab	4	
CHE 202 or BIO 101 or BIO 111	Organic Chemistry II (5) or General Biology (4) or Principles of Biology I (4)	4	CHEM 2220, 2229 or BIO SCI 1113, 1219	Organic Chemistry II and Lab or General Biology and Lab Applies to degree as Track Elective.	4	
MAT 161	Computer Programming and Applications for Engineers	4	CS 1500	Computational Problem Solving	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.						
EGL 201 or EGL 202 or EGL 210 or EGL 211 or HIS 111* or HIS 112* or ART 101 or MUS 104	Survey of British Literature I or Survey of British Literature I or Survey of American Literature: Colonial Era to Civil War or Survey of American Literature: Civil War to Present or United States History to 1877* or United States History Since 1877* or Art Appreciation or Music Appreciation *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 GEG 102 or POS 101* or PSY 101 or ECO 131 or ECO 132 or Foreign Language	History of Western Civilization I or History of Western Civilization II* or World Regional Geography or American Politics* or Intro to Psychology or Principles of Economics I (Microeconomics) or Principles of Economics II (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		33	Group 2 Major Requirements		31	
Group 1 Core Requirements		29	Group 1 Core Requirements		26	
Total Hours		62			Total Hours*	57
*S&T advisor permission is required to transfer more than 69 credit hours toward the degree.						

Biomedical Engineering-Biomaterials Group 2 Major Requirements

Lincoln Land Community College		Semester	Missouri S&T			
CMN 101	Fundamentals of Speech	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
CHE 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
CHE 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	
CHE 201	Organic Chemistry I	5	CHEM 2210, 2219*	Organic Chemistry I and Lab* *CHEM 2219 Lab applies to the degree as a Track Elective (non-engineering).	4	
CHE 202	Organic Chemistry II	5	CHEM 2220, 2229*	Organic Chemistry II and Lab* CHEM 2229 Lab applies to the degree as a Track Elective (non-engineering).	4	
BIO 101 or BIO 111	General Biology (4) or Principles of Biology I (4)	4	BIO SCI 1113*, 1219*	General Biology* and Lab* *Applies to degree as Track Elective (Non-engineering).	4	
MAT 161	Computer Programming and Applications for Engineers	4	CS 1500	Computational Problem Solving	3	
ENG 220	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
ENG 270	Circuit Analysis	3	ELEC ENG 2100*, 2101	Circuits I* (3) and Circuit Analysis Lab (1) *A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for ELEC ENG 2100. Applies to the degree as a Track Elective (Engineering).	4	
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.						
EGL 201 or EGL 202 or EGL 210 or EGL 211 or HIS 111* or HIS 112* or ART 101 or MUS 104	Survey of British Literature I or Survey of British Literature I or Survey of American Literature: Colonial Era to Civil War or Survey of American Literature: Civil War to Present or United States History to 1877* or United States History Since 1877* or Art Appreciation or Music Appreciation <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 3 hours.						
HIS 101 or HIS 102* or GEG 102 or POS 101* or PSY 101 or ECO 131 or ECO 132 or Foreign Language	History of Western Civilization I or History of Western Civilization II* or World Regional Geography or American Politics* or Intro to Psychology or Principles of Economics I (Microeconomics) or Principles of Economics II (Macroeconomics) or Elementary or Intermediate Foreign Language <i>*Satisfies the State of Missouri government requirement.</i>	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 <i>*Satisfies the State of Missouri government requirement.</i>	3	
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives		0	
Group 2 Major Requirements		44	Group 2 Major Requirements		42	
Group 1 Core Requirements		29	Group 1 Core Requirements		26	
Total Hours		73			Total Hours*	68
*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 Land Community College			Semester	Missouri S&T	
EGL 102 or CMN 101	Composition II or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
ENG 220	Applied Mechanics (Statics)	3	CIV ENG 2200	Engineering Mechanics-Statics	3
ENG 240	Mechanics of Materials	4	CIV ENG 2210	Mechanics of Materials	3
CHE 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHE 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
CHE 201	Organic Chemistry I	5	CHEM 2210, 2219*	Organic Chemistry I (3) and Lab* (1) Satisfies the advanced chemistry elective requirement. *The lab is not a degree requirement, transfers as general elective credit.	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.					
EGL 201 or EGL 202 or EGL 210 or EGL 211 or HIS 111* or HIS 112* or ART 101 or MUS 104	Survey of British Literature I or Survey of British Literature I or Survey of American Literature: Colonial Era to Civil War or Survey of American Literature: Civil War to Present or United States History to 1877* or United States History Since 1877* or Art Appreciation or Music Appreciation *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 GEG 102 or PHI 204 or PHI 201 or POS 101* or PSY 101 or ECO 131 or ECO 132 or Foreign Language	History of Western Civilization I or History of Western Civilization II* or World Regional Geography or Intro to Philosophy or Intro to Logic or American Politics* or Intro to Psychology or Principles of Economics I (Microeconomics) or Principles of Economics II (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 PHILOS 1115 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 Logic and Reasoning: An Introduction 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		38	Group 2 Major Requirements		35
Group 1 Core Requirements		29	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 Land Community College		Semester	Missouri S&T		
CMN 101	Fundamentals of Speech	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHE 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
CHE 201	Organic Chemistry I	5	CHEM 2210, 2219*	Organic Chemistry I and Lab* *CHEM 2210 is a degree requirement. CHEM 2219 applies to the degree as 1 of 9 required science elective credits See note below .	4
CHE 202	Organic Chemistry II	5	CHEM 2220	Organic Chemistry II (3) CHEM 2220 will apply to the degree as 3 of 9 required science elective credits. CHEM 2229 is not an S&T degree requirement, will transfer as general elective credit.	8
MAT 161	Computer Programming and Applications for Engineers	4	CS 1500	Computational Problem Solving	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. *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.					
EGL 201 or EGL 202 or EGL 210 or EGL 211 or HIS 111* or HIS 112* or ART 101 or MUS 104	Survey of British Literature I or Survey of British Literature I or Survey of American Literature: Colonial Era to Civil War or Survey of American Literature: Civil War to Present or United States History to 1877* or United States History Since 1877* or Art Appreciation or Music Appreciation *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 GEG 102 or PHI 204 or PHI 201 or POS 101* or PSY 101 or ECO 131 or ECO 132 or Foreign Language	History of Western Civilization I or History of Western Civilization II* or World Regional Geography or Intro to Philosophy or Intro to Logic or American Politics* or Intro to Psychology or Principles of Economics I (Microeconomics) or Principles of Economics II (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 PHILOS 1115 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 Logic and Reasoning: An Introduction 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
No free electives applied to the degree.		0	Maximum Free Electives		0
Group 2 Major Requirements		37	Group 2 Major Requirements		38
Group 1 Core Requirements		29	Group 1 Core Requirements		26
Total Hours		66			Total Hours* 64
*S&T advisor permission is required to transfer more than 68 credits toward the S&T Chemical Engineering degree.					

Civil Engineering Group 2 Major Requirements

Lincoln Land Community College		Semester	Missouri S&T			
EGL 102 or CMN 101	Composition II or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3	
CHE 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
GEO 101	Physical Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3	
ENG 220	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
ENG 221	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2	
ENG 240	Mechanics of Materials	4	CIV ENG 2210	Mechanics of Materials	3	
BDM 120	Surveying and Building Layout	3	CIV ENG 2401	Fundamentals of Surveying	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.						
EGL 201 or EGL 202 or EGL 210 or EGL 211 or HIS 111* or HIS 112* or ART 101 or MUS 104	Survey of British Literature I or Survey of British Literature I or Survey of American Literature: Colonial Era to Civil War or Survey of American Literature: Civil War to Present or United States History to 1877* or United States History Since 1877* or Art Appreciation or Music Appreciation	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 GEG 102 or PHI 204 or PHI 201 or POS 101* or PSY 101 or ECO 131 or ECO 132 or Foreign Language	History of Western Civilization I or History of Western Civilization II* or World Regional Geography or Intro to Philosophy or Intro to Logic or American Politics* or Intro to Psychology or Principles of Economics I (Microeconomics) or Principles of Economics II (Macroeconomics) or Elementary or Intermediate Foreign Language	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 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 Logic and Reasoning: An Introduction 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.						
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		39	Group 2 Major Requirements		37	
Group 1 Core Requirements		29	Group 1 Core Requirements		26	
Total Hours		68			Total Hours*	63
*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 Land Community College		Semester	Missouri S&T		
CMN 101	Fundamentals of Speech	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5
MAT 220	Discrete Structures	3	COMP SCI 1200	Discrete Math for Computer Science	3
MAT 161	Computer Programming and Applications for Engineers	4	COMP SCI 1500	Computational Problem Solving	3
ENG 220 or ENG 221 or CHE 201	Statics or Dynamics or Organic Chemistry I (5)	3	CIV ENG 2200 or MECH ENG 2350 or CHEM 2210, 2219*	Engineering Mechanics-Statics (3) or Engineering Mechanics-Dynamics (2) or Organic Chemistry I (3) and Lab* (1) Satisfies a required engineering/science elective. *CHEM 2219 is not an S&T degree requirement, will transfer as general elective credit.	3
ENG 270	Circuit Analysis	3	ELEC ENG 2100*, 2101	Circuits I* (3) and Circuit Analysis Lab (1) *A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for ELEC ENG 2100.	4
MAT 215	Intro to Linear Algebra	3	MATH 3108	Linear Algebra Satisfies a required math elective.	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.					
EGL 201 or EGL 202 or EGL 210 or EGL 211 or HIS 111* or HIS 112* or ART 101 or MUS 104	Survey of British Literature I or Survey of British Literature I or Survey of American Literature: Colonial Era to Civil War or Survey of American Literature: Civil War to Present or United States History to 1877* or United States History Since 1877* or Art Appreciation or Music Appreciation *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 GEG 102 or PHI 204 or PHI 201 or POS 101* or PSY 101 or ECO 131 or ECO 132 or Foreign Language	History of Western Civilization I or History of Western Civilization II* or World Regional Geography or Intro to Philosophy or Intro to Logic or American Politics* or Intro to Psychology or Principles of Economics I (Microeconomics) or Principles of Economics II (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 PHILOS 1115 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 Logic and Reasoning: An Introduction 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.					
EGL 102	Composition II	3	ENGLISH 1160	Writing and Research	3
Electives	Maximum Free Electives	3	Electives	Maximum Free Electives	3
	Group 2 Major Requirements	41		Group 2 Major Requirements	42
	Group 1 Core Requirements	29		Group 1 Core Requirements	26
	Total Hours	70		Total Hours*	68
*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 Land Community College			Semester	Missouri S&T		
CMN 101	Fundamentals of Speech	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
CHE 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
MAT 161	Computer Programming and Applications for Engineers	4	CS 1500	Computational Problem Solving	3	
ENG 220 and ENG 221	Applied Mechanics (Statics) (3) and Dynamics (3))	5	CIV ENG 2200 and MECH ENG 2350	Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (2)	3	
BOTH of the courses above or ONE of the courses below.			BOTH of the courses above or any one of the following courses will satisfy a required engineering science elective.			
OR			OR			
CHE 201	Organic Chemistry I (5)		CHEM 2210, 2219	Organic Chemistry I and Lab (4)		
ENG 270	Circuit Analysis	3	ELEC ENG 2100*, 2101	Circuits I* (3) and Circuit Analysis Lab (1) *A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for ELEC ENG 2100.	4	
MAT 215	Intro to Linear Algebra	3	MATH 3108	Linear Algebra	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.						
EGL 201 or EGL 202 or EGL 210 or EGL 211 or HIS 111* or HIS 112* or ART 101 or MUS 104	Survey of British Literature I or Survey of British Literature I or Survey of American Literature: Colonial Era to Civil War or Survey of American Literature: Civil War to Present or United States History to 1877* or United States History Since 1877* or Art Appreciation or Music Appreciation *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 GEG 102 or PHI 204 or PHI 201 or POS 101* or PSY 101 or ECO 131 or ECO 132 or Foreign Language	History of Western Civilization I or History of Western Civilization II* or World Regional Geography or Intro to Philosophy or Intro to Logic or American Politics* or Intro to Psychology or Principles of Economics I (Microeconomics) or Principles of Economics II (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 PHILOS 1115 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 Logic and Reasoning: An Introduction 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.						
EGL 102	Composition II	3	ENGLISH 1160	Writing and Research	3	
Electives	Maximum Free Electives	6	Electives	Maximum Free Electives	6	
	Group 2 Major Requirements	43		Group 2 Major Requirements	42	
	Group 1 Core Requirements	29		Group 1 Core Requirements	26	
	Total Hours	72		Total Hours*	68	
*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

Lincoln Land Community College			Semester	Missouri S&T		
CMN 101	Fundamentals of Speech	3		SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 101	General Chemistry I	4		CHEM 1310, 1319	General Chemistry I and Lab	5
ENG 270	Circuit Analysis	3		ELEC ENG 2800	Electrical Circuits	3
ENG 220	Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
ENG 221	Dynamics	3		MECH ENG 2350	Engineering Mechanics-Dynamics	2
ENG 240	Mechanics of Materials	4		CIV ENG 2210	Mechanics of Materials	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.						
EGL 201 or EGL 202 or EGL 210 or EGL 211 or HIS 111* or HIS 112* or ART 101 or MUS 104	Survey of British Literature I or Survey of British Literature I or Survey of American Literature: Colonial Era to Civil War or Survey of American Literature: Civil War to Present or United States History to 1877* or United States History Since 1877* or Art Appreciation or Music Appreciation *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 to include PSYCH 1101.						
PSY 101	Intro to Psychology	3		PSYCH 1101	General Psychology Required	3
HIS 101 or HIS 102* or GEG 102 or PHI 204 or PHI 201 or POS 101* or ECO 131 or ECO 132 or Foreign Language	History of Western Civilization I or History of Western Civilization II* or World Regional Geography or Intro to Philosophy or Intro to Logic or American Politics* or Principles of Economics I (Microeconomics) or Principles of Economics II (Macroeconomics) or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3		HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* 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 Logic and Reasoning: An Introduction or American Government* or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3
Humanities, Arts, and Social Sciences Select 3 hours.						
EGL 102	Composition 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	35			Group 2 Major Requirements	34
	Group 1 Core Requirements	29			Group 1 Core Requirements	26
	Total Hours	64				Total Hours* 61

*S&T advisor permission is required to transfer more than 61 credits toward the S&T Engineering Management degree.

Environmental Engineering Group 2 Major Requirements

Lincoln Land Community College			Semester	Missouri S&T	
EGL 102 or CMN 101	Composition II or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
GEO 101	Physical Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
CHE 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHE 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
BIO 101	General Biology	4	BIO SCI 1113, 1219*	General Biology (3) and Lab* (1) *The lab is not a degree requirement, transfers as general elective credit.	3
ENG 220	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
ENG 221	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
ENG 240	Mechanics of Materials	4	CIV ENG 2210	Mechanics of Materials	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. *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.					
EGL 201 or EGL 202 or EGL 210 or EGL 211 or HIS 111* or HIS 112* or ART 101 or MUS 104	Survey of British Literature I or Survey of British Literature I or Survey of American Literature: Colonial Era to Civil War or Survey of American Literature: Civil War to Present or United States History to 1877* or United States History Since 1877* or Art Appreciation or Music Appreciation *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 to include HISTORY 1200					
HIS 102*	History of Western Civilization II* *Satisfies the State of Missouri Government requirement.	3	HISTORY 1200*	Modern Western Civilization* *Satisfies the State of Missouri Government requirement.	3
PHI 204 or PHI 201 or POS 101* or PSY 101 or ECO 131 or ECO 132 or Foreign Language	Intro to Philosophy or Intro to Logic or American Politics* or Intro to Psychology or Principles of Economics I (Microeconomics) or Principles of Economics II (Macroeconomics) or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3	PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction 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		41	Group 2 Major Requirements		37
Group 1 Core Requirements		29	Group 1 Core Requirements		26
Total Hours		70			Total Hours* 63
*S&T advisor permission is required to transfer more than 69 credits toward the S&T Environmental Engineering degree.					

Geological Engineering Group 2 Major Requirements

Lincoln Land Community College			Semester	Missouri S&T	
CHE 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5
MAT 161	Computer Programming and Applications for Engineers	4	CS 1500	Computational Problem Solving	3
GEO 101	Physical Geology	4	GEO ENG 1150 (GEOLOGY 1110)	Physical and Environmental Geology	3
ENG 220	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
ENG 221	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
ENG 240	Mechanics of Materials	4	CIV ENG 2210	Mechanics of Materials	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.					
EGL 201 or EGL 202 or EGL 210 or EGL 211 or HIS 111* or HIS 112* or ART 101 or MUS 104	Survey of British Literature I or Survey of British Literature II or Survey of American Literature: Colonial Era to Civil War or Survey of American Literature: Civil War to Present or United States History to 1877* or United States History Since 1877* or Art Appreciation or Music Appreciation *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 GEG 102 or PHI 204 or PHI 201 or POS 101* or PSY 101 or ECO 131 or ECO 132 or Foreign Language	History of Western Civilization I or History of Western Civilization II* or World Regional Geography or Intro to Philosophy or Intro to Logic or American Politics* or Intro to Psychology or Principles of Economics I (Microeconomics) or Principles of Economics II (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 PHILOS 1115 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 Logic and Reasoning: An Introduction 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		37	Group 2 Major Requirements		34
Group 1 Core Requirements		29	Group 1 Core Requirements		26
Total Hours		66	Total Hours*		60
*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 Land Community College		Semester	Missouri S&T			
EGL 102 or CMN 101	Composition II or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3	
CHE 101	General Chemistry I	4	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5	
ENG 270	Circuit Analysis	3	ELEC ENG 2800	Electrical Circuits	3	
ENG 220	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
ENG 240	Mechanics of Materials	4	CIV ENG 2210	Mechanics of Materials	3	
MAT 215	Intro to Linear Algebra	3	MATH 3108	Linear Algebra I Satisfies the Advanced Math/Statistics elective requirement.	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.						
EGL 201 or EGL 202 or EGL 210 or EGL 211 or HIS 111* or HIS 112* or ART 101 or MUS 104	Survey of British Literature I or Survey of British Literature I or Survey of American Literature: Colonial Era to Civil War or Survey of American Literature: Civil War to Present or United States History to 1877* or United States History Since 1877* or Art Appreciation or Music Appreciation *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 GEG 102 or PHI 204 or PHI 201 or POS 101* or PSY 101 or ECO 131 or ECO 132 or Foreign Language	History of Western Civilization I or History of Western Civilization II* or World Regional Geography or Intro to Philosophy or Intro to Logic or American Politics* or Intro to Psychology or Principles of Economics I (Microeconomics) or Principles of Economics II (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 PHILOS 1115 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 Logic and Reasoning: An Introduction 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		35	Group 2 Major Requirements		35	
Group 1 Core Requirements		29	Group 1 Core Requirements		26	
Total Hours		64			Total Hours*	61
*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

Lincoln Land Community College		Semester	Missouri S&T		
EGL 102 or CMN 101 ENG 220	Composition II or Fundamentals of Speech Statics	3 3	ENGLISH 1160 or SPMS 1185 CIV ENG 2200	Writing and Research or Principles of Speech Engineering Mechanics-Statics	3 3
ENG 240	Mechanics of Materials	4	CIV ENG 2210	Mechanics of Materials	3
CHE 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHE 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
CHE 201 or ENG 270	Organic Chemistry I or Circuit Analysis	3	CHEM 2210, 2219 or EE 2800	Organic Chemistry I (3) and Lab (1) or Electrical Circuits (3) Not specifically required for the degree but will satisfy out-of-department technical elective requirement	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.					
EGL 201 or EGL 202 or EGL 210 or EGL 211 or HIS 111* or HIS 112* or ART 101 or MUS 104	Survey of British Literature I or Survey of British Literature II or Survey of American Literature: Colonial Era to Civil War or Survey of American Literature: Civil War to Present or United States History to 1877* or United States History Since 1877* or Art Appreciation or Music Appreciation *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 GEG 102 or PHI 204 or PHI 201 or POS 101* or PSY 101 or ECO 131 or ECO 132 or Foreign Language	History of Western Civilization I or History of Western Civilization II* or World Regional Geography or Intro to Philosophy or Intro to Logic or American Politics* or Intro to Psychology or Principles of Economics I (Microeconomics) or Principles of Economics II (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 PHILOS 1115 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 Logic and Reasoning: An Introduction 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
Maximum Free Electives		3	Maximum Free Electives		3
Group 2 Major Requirements		39	Group 2 Major Requirements		38
Group 1 Core Requirements		29	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 Metallurgical Engineering degree.					

Mining Engineering Group 2 Major Requirements

Lincoln Land Community College		Semester	Missouri S&T			
EGL 102 or CMN 101	Composition II or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3	
CHE 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
ENG 220	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
ENG 221	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2	
ENG 240	Mechanics of Materials	4	CIV ENG 2210	Mechanics of Materials	3	
GEO 101	Physical Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	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.						
*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.						
EGL 201 or EGL 202 or EGL 210 or EGL 211 or HIS 111* or HIS 112* or ART 101 or MUS 104	Survey of British Literature I or Survey of British Literature II or Survey of American Literature: Colonial Era to Civil War or Survey of American Literature: Civil War to Present or United States History to 1877* or United States History Since 1877* or Art Appreciation or Music Appreciation *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 GEG 102 or PHI 204 or PHI 201 or POS 101* or PSY 101 or ECO 131 or ECO 132 or Foreign Language	History of Western Civilization I or History of Western Civilization II* or World Regional Geography or Intro to Philosophy or Intro to Logic or American Politics* or Intro to Psychology or Principles of Economics I (Microeconomics) or Principles of Economics II (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 PHILOS 1115 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 Logic and Reasoning: An Introduction 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	
No free electives applied to the degree.		0	Maximum Free Electives		0	
Group 2 Major Requirements		33	Group 2 Major Requirements		31	
Group 1 Core Requirements		29	Group 1 Core Requirements		26	
Total Hours		62			Total Hours*	57
*S&T advisor permission is required to transfer more than 68 credits toward the S&T Mining Engineering degree.						

Nuclear Engineering Group 2 Major Requirements

<u>Lincoln Land Community College</u>			<u>Semester</u>	<u>Missouri S&T</u>		
EGL 102 or CMN 101	Composition II or Fundamentals of Speech	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3	
CHE 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
MAT 215	Intro to Linear Algebra	3	MATH 3108	Linear Algebra	3	
ENG 220	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
ENG 240	Mechanics of Materials	4	CIV ENG 2210	Mechanics of Materials	3	
ENG 270	Circuit Analysis	3	ELEC ENG 2800	Electrical Circuits	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.						
EGL 201 or EGL 202 or EGL 210 or EGL 211 or HIS 111* or HIS 112* or ART 101 or MUS 104	Survey of British Literature I or Survey of British Literature II or Survey of American Literature: Colonial Era to Civil War or Survey of American Literature: Civil War to Present or United States History to 1877* or United States History Since 1877* or Art Appreciation or Music Appreciation *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.						
ECO 131 or ECO 132	Principles of Economics I (Microeconomics) or Principles of Economics II (Macroeconomics)	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3	
HIS 101 or HIS 102* or GEG 102 or PHI 204 or PHI 201 or POS 101* or PSY 101 or Foreign Language	History of Western Civilization I or History of Western Civilization II* or World Regional Geography or Intro to Philosophy or Intro to Logic or American Politics* or Intro to Psychology or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 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 Logic and Reasoning: An Introduction or American Government* or General Psychology or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	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		35	Group 2 Major Requirements		35	
Group 1 Core Requirements		29	Group 1 Core Requirements		26	
Total Hours		64			Total Hours*	61
*S&T advisor permission is required to transfer more than 69 credits toward the S&T Nuclear Engineering degree.						

Petroleum Engineering Group 2 Major Requirements

Lincoln Land Community College			Semester	Missouri S&T	
EGL 102 or	Composition II or	3	ENGLISH 1160 or	Writing and Research or	3
CMN 101	Fundamentals of Speech		SPMS 1185	Principles of Speech	
CHE 101	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5
MAT 161	Computer Programming and Applications for Engineers	4	CS 1500	Computational Problem Solving	3
GEO 101	Physical Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
ENG 220	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
ENG 221	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
ENG 240	Mechanics of Materials	4	CIV ENG 2210	Mechanics of Materials	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.					
EGL 201 or	Survey of British Literature I or		ENGLISH 1211 or	British Literature I: The Beginnings to 1800 or	
EGL 202 or	Survey of British Literature I or		ENGLISH 1212 or	British Literature II: 1800 to Present	
EGL 210 or	Survey of American Literature: Colonial Era to Civil War or		ENGLISH 1221 or	American Literature: 1600 to 1865 or	
EGL 211 or	Survey of American Literature: Civil War to Present or		ENGLISH 1222 or	American Literature: 1865 to Present or	
HIS 111* or	United States History to 1877* or	6	HISTORY 1300* or	American History to 1877* or	6
HIS 112* or	United States History Since 1877* or		HISTORY 1310* or	American History Since 1877* or	
ART 101 or	Art Appreciation or		ART 1180 or	Art Appreciation or	
MUS 104	Music Appreciation		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	History of Western Civilization I or		HISTORY 1100 or	Early Western Civilization or	
HIS 102* or	History of Western Civilization II* or		HISTORY 1200* or	Modern Western Civilization* or	
GEG 102 or	World Regional Geography or		HISTORY 2110 or	World Regional Geography or	
PHI 204 or	Intro to Philosophy or		PHILOS 1105 or	Self and World: Intro to Philosophy or	
PHI 201 or	Intro to Logic or		PHILOS 1115 or	Logic and Reasoning: An Introduction or	
POS 101* or	American Politics* or	6	POL SCI 1200* or	American Government*or	6
PSY 101 or	Intro to Psychology or		PSYCH 1101 or	General Psychology or	
ECO 131 or	Principles of Economics I (Microeconomics) or		ECON 1100 or	Principles of Microeconomics or	
ECO 132 or	Principles of Economics II (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		40	Group 2 Major Requirements		37
Group 1 Core Requirements		29	Group 1 Core Requirements		26
Total Hours		69	Total Hours*		63
*S&T advisor permission is required to transfer more than 69 credits toward the S&T Petroleum Engineering degree.					