

Lewis and Clark 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>Lewis and Clark Community College</u>			<u>Semester</u>	<u>Missouri S&T</u>		
MATH 171	Calculus and Analytic Geometry I	5		MATH 1214	Calculus I	Grade of C or better is required. 4
MATH 172	Calculus and Analytic Geometry II	5		MATH 1215	Calculus II	Grade of C or better is required. 4
MATH 271	Calculus and Analytic Geometry III	4		MATH 2222	Calculus III	Grade of C or better is required. 4
MATH 272	Differential Equations	3		MATH 3304	Elementary Differential Equations	3
PHYS 141	General Physics I	5		PHYSICS 1135	Engineering Physics I	Grade of C or better is required. 4
PHYS 142	General Physics II	5		PHYSICS 2135	Engineering Physics II	Grade of C or better is required. 4
ENGR 101	Engineering Orientation	1		FR ENG 1100	Study and Careers in Engineering and Computing	1
ENGL 131	First Year-English I	3		ENGLISH 1120	Exposition and Argumentation	3
		Total Hours	31			Total Hours 27

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

Lewis and Clark Community College		Semester	Missouri S&T		
ENGL 132 or ENGL 137 or SPCH 131	First-Year English II or Technical Writing or Public Speaking	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 141	General Chemistry I	5	CHEM 1310*, 1319	General Chemistry I* and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
CIS 235	C++ Programming	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
PHYS 210	Engineering Circuit Analysis	3	ELEC ENG 2800	Electrical Circuits	3
PHYS 241	Applied Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHYS 242	Applied Mechanics - Dynamics	3	AERO ENG 2360	Dynamics	3
PHYS 246	Thermodynamics	3	MECH ENG 2519	Thermodynamics	3
PHYS 245	Mechanics of Solids	3	CIV ENG 2210	Mechanics of Materials	3
MATH 274	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.					
LITT 241 or LITT 242 or LITT 235 or LITT 236 or HIST 231* or HIST 232* or ART 141 or MUSI 130	British Literature I or British Literature II or American Literature I or American Literature II or American Republic: Beginnings-1877* or American Nation: 1877-Present* or History of Art I or Appreciation 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.					
HIST 131 or HIST 132* or GEOG 132 or PHIL 131 or PHIL 231 or POL SCI 131* or PSYC 131 or ECON 152 or ECON 151 or Foreign Language	Western Civilization I or Western Civilization II* or Geography by World Regions or Intro to Philosophy or Fundamentals of Logic Reasoning 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	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		47	Group 2 Major Requirements		47
Group 1 Core Requirements		31	Group 1 Core Requirements		27
Total Hours		78	Total Hours*		74
*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

Lewis and Clark Community College			Semester	Missouri S&T	
ENGL 132 or ENGL 137 or SPCH 131	First-Year English II or Technical Writing or Public Speaking	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech <i>Applies to degree as Gen Ed Communication requirement.</i>	3
CHEM 141	General Chemistry I	5	CHEM 1310*, 1319	General Chemistry I* and Lab <i>*CHEM 1310 will be substituted for CHEM 1305.</i>	5
PHYS 241	Applied Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHYS 242	Applied Mechanics - Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
PHYS 246	Thermodynamics	3	MECH ENG 2519*	Thermodynamics* <i>*Will be substituted for MECH ENG 2527.</i>	3
PHYS 245	Mechanics of Solids	3	CIV ENG 2210	Mechanics of Materials	3
PHSC 145	Intro Geology & Physical Geography	3	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 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.					
LITT 241 or LITT 242 or LITT 235 or LITT 236 or HIST 231* or HIST 232* or ART 141 or MUSI 130	British Literature I or British Literature II or American Literature I or American Literature II or American Republic: Beginnings-1877* or American Nation: 1877-Present* or History of Art I or Appreciation 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 to include HISTORY 1200.					
HIST 132*	Western Civilization II* <i>*Satisfies the State of Missouri government requirement.</i>	3	HISTORY 1200*	Modern Western Civilization* <i>*Satisfies the State of Missouri government requirement.</i>	3
PHIL 131 or PHIL 231 or POL SCI 131* or PSYC 131 or ECON 152 or ECON 151 or Foreign Language	Intro to Philosophy or Fundamentals of Logic Reasoning 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	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 <i>*Satisfies the State of Missouri government requirement.</i>	3
Humanities, Arts, and Social Sciences ART 3203 required.					
ADCG 133	Intro to Architecture	3	ART 3203	Architectural Design I	3
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives		0
Group 2 Major Requirements		38	Group 2 Major Requirements		37
Group 1 Core Requirements		31	Group 1 Core Requirements		27
Total Hours		69			Total Hours* 64
<i>*S&T advisor permission is required to transfer more than 69 credits toward the S&T Architectural Engineering degree.</i>					

Biomedical Engineering-Biomanufacturing Group 2 Major Requirements

Lewis and Clark Community College		Semester	Missouri S&T		
SPCH 131	Public Speaking	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 141	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CHEM 142	General Chemistry II	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3
CHEM 261, 262	Organic Chemistry I and Lab	5	CHEM 2210, 2219	Organic Chemistry I and Lab	4
CHEM 263, 264 or BIOL 130 or BIOL 162	Organic Chemistry II and Lab (5) or Fundamentals of Biological Science (4) or Human Inheritance (3)	3	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 Applies to degree as Track Elective.	4
CIS 235	C++ Programming	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)* Will be substituted for CS 1500.	3
PHYS 246	Thermodynamics	3	MECH ENG 2519*	Thermodynamics* *The combination of MECH ENG 2519 AND CHEM ENG 4000 (an independent study, online S&T course) will be substituted for CHEM ENG 2110 by the biomedical engineering department. Students must complete both courses to receive credit.	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 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.					
LITT 241 or LITT 242 or LITT 235 or LITT 236 or HIST 231* or HIST 232* or ART 141 or MUSI 130	British Literature I or British Literature II or American Literature I or American Literature II or American Republic: Beginnings-1877* or American Nation: 1877-Present* or History of Art I or Appreciation 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.					
HIST 131 or HIST 132* or GEOG 132 or POL SCI 131* or PSYC 131 or ECON 152 or ECON 151 or Foreign Language	Western Civilization I or Western Civilization II* or Geography by World Regions 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	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or POL SCI 1200* or PSYC 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
Humanities, Arts, and Social Sciences ENGLISH 3560 required.					
ENGL 137	Technical Writing	3	ENGLISH 3560	Technical Writing	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		31	Group 1 Core Requirements		27
Total Hours		70			Total Hours* 64
*S&T advisor permission is required to transfer more than 69 credit hours toward the degree.					

Biomedical Engineering-Biomaterials Group 2 Major Requirements

Lewis and Clark Community College			Semester	Missouri S&T	
SPCH 131	Public Speaking	3	SP&MS 1185	Principles of Speech	3
CHEM 141	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CHEM 142	General Chemistry II	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2)	3
CHEM 261, 262	Organic Chemistry I and Lab	5	CHEM 2210, 2219*	Organic Chemistry I and Lab*	4
CHEM 263, 264	Organic Chemistry II and Lab	5	CHEM 2220, 2229*	Organic Chemistry II and Lab*	4
BIOL 130	Fundamentals of Biological Science	4	BIO SCI 1113*, 1219*	General Biology* and Lab*	4
CIS 235	C++ Programming	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)*	3
PHYS 241	Applied Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHYS 210	Engineering Circuit Analysis	3	ELEC ENG 2100*, 2101	Circuits I* (3) and Circuit Analysis Lab (1)	4
*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).					
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 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.					
LITT 241 or LITT 242 or LITT 235 or LITT 236 or HIST 231* or HIST 232* or ART 141 or MUSI 130	British Literature I or British Literature II or American Literature I or American Literature II or American Republic: Beginnings-1877* or American Nation: 1877-Present* or History of Art I or Appreciation 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.					
HIST 131 or HIST 132* or GEOG 132 or POL SCI 131* or PSYC 131 or ECON 152 or ECON 151 or Foreign Language	Western Civilization I or Western Civilization II* or Geography by World Regions 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	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or POL SCI 1200* or PSYC 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
Humanities, Arts, and Social Sciences					
ENGLISH 3560 required.					
ENGL 137	Technical Writing	3	ENGLISH 3560	Technical Writing	3
No free electives applied to the degree.		0		Maximum Free Electives	0
Group 2 Major Requirements		48		Group 2 Major Requirements	45
Group 1 Core Requirements		31		Group 1 Core Requirements	27
Total Hours		79			Total Hours*
*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

<u>Lewis and Clark Community College</u>			<u>Semester</u>	<u>Missouri S&T</u>	
ENGL 132 or ENGL 137 or SPCH 131	First-Year English II or Technical Writing or Public Speaking	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
PHYS 241	Applied Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHYS 245	Mechanics of Solids	3	CIV ENG 2210	Mechanics of Materials	3
CHEM 141	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CHEM 142	General Chemistry II	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3
CHEM 261	Organic Chemistry I	3	CHEM 2210	Organic Chemistry I (3) Will satisfy the advanced chemistry elective requirement.	3
PHYS 244	Intro to 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.					
LITT 241 or LITT 242 or LITT 235 or LITT 236 or HIST 231* or HIST 232* or ART 141 or MUSI 130	British Literature I or British Literature II or American Literature I or American Literature II or American Republic: Beginnings-1877* or American Nation: 1877-Present* or History of Art I or Appreciation 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.					
HIST 131 or HIST 132* or GEOG 132 or PHIL 131 or PHIL 231 or POL SCI 131* or PSYC 131 or ECON 152 or ECON 151 or Foreign Language	Western Civilization I or Western Civilization II* or Geography by World Regions or Intro to Philosophy or Fundamentals of Logic Reasoning 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	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		40	Group 2 Major Requirements		38
Group 1 Core Requirements		31	Group 1 Core Requirements		27
Total Hours		71			Total Hours*
*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

Lewis and Clark Community College			Semester	Missouri S&T	
SPCH 131	Public Speaking	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 141	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CHEM 142	General Chemistry II	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis* (2) *CHEM 1510 is not a degree requirement; transfers as general elective credit.	3
CHEM 261, 262	Organic Chemistry I and Lab	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
CHEM 263, 264	Organic Chemistry II and Lab	5	CHEM 2220, 2229*	Organic Chemistry II (3) and Lab* (1) CHEM 2220 applies to the degree as 3 of the 9 required science elective credits (above). CHEM 2229 is not a degree requirement; transfers as general elective credit.	8
CIS 235	C++ Programming	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)* Will be substituted for CS 1500.	3
PHYS 246	Thermodynamics	3	MECH ENG 2519*	Thermodynamics* *The combination of MECH ENG 2519 AND CHEM ENG 4000 (an independent study, online S&T course) will be substituted for CHEM ENG 2110 by the chemical engineering department. Students must complete both courses to receive 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.					
LITT 241 or LITT 242 or LITT 235 or LITT 236 or HIST 231* or HIST 232* or ART 141 or MUSI 130	British Literature I or British Literature II or American Literature I or American Literature II or American Republic: Beginnings-1877* or American Nation: 1877-Present* or History of Art I or Appreciation 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.					
HIST 131 or HIST 132* or GEOG 132 or PHIL 131 or PHIL 231 or POL SCI 131* or PSYC 131 or ECON 152 or ECON 151 or Foreign Language	Western Civilization I or Western Civilization II* or Geography by World Regions or Intro to Philosophy or Fundamentals of Logic Reasoning 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	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 ENGLISH 3560 required.					
ENGL 137	Technical Writing	3	ENGLISH 3560	Technical Writing	3
No free electives applied to the degree.		0		Maximum Free Electives	0
Group 2 Major Requirements		44		Group 2 Major Requirements	44
Group 1 Core Requirements		31		Group 1 Core Requirements	27
Total Hours		75			Total Hours*
				*S&T advisor permission is required to transfer more than 68 credits toward the S&T Chemical Engineering degree.	

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Civil Engineering Group 2 Major Requirements

<u>Lewis and Clark Community College</u>			<u>Semester</u>	<u>Missouri S&T</u>			
ENGL 132 or ENGL 137 or SPCH 131	First-Year English II or Technical Writing or Public Speaking	3		ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech <i>Applies to degree as Gen Ed Communication requirement.</i>	3	
CHEM 141	General Chemistry I	5		CHEM 1310, 1319	General Chemistry I and Lab	5	
PHSC 145	Intro Geology & Physical Geography	3		GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3	
PHYS 241	Applied Mechanics-Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3	
PHYS 242	Applied Mechanics-Dynamics	3		MECH ENG 2350	Engineering Mechanics-Dynamics	2	
PHYS 245	Mechanics of Solids	3		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.							
LITT 241 or LITT 242 or LITT 235 or LITT 236 or HIST 231* or HIST 232* or ART 141 or MUSI 130	British Literature I or British Literature II or American Literature I or American Literature II or American Republic: Beginnings-1877* or American Nation: 1877-Present* or History of Art I or Appreciation 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.							
HIST 131 or HIST 132* or GEOG 132 or PHIL 131 or PHIL 231 or POL SCI 131* or PSYC 131 or ECON 152 or ECON 151 or Foreign Language	Western Civilization I or Western Civilization II* or Geography by World Regions or Intro to Philosophy or Fundamentals of Logic Reasoning 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		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 <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		35		Group 2 Major Requirements		34	
Group 1 Core Requirements		31		Group 1 Core Requirements		27	
Total Hours		66				Total Hours*	61
*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

Lewis and Clark Community College			Semester	Missouri S&T		
SPCH 131	Public Speaking	3	SPMS 1185	Principles of Speech	3	
CHEM 141	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5	
CIS 235	C++ Programming	3	CS 1500	Computational Problem Solving	3	
PHYS 241 or PHYS 242 or PHYS 246 or PHYS 244 or CHEM 261	Applied Mechanics-Statics or Applied Mechanics-Dynamics or Thermodynamics or Intro to Modern Physics or Organic Chemistry I	3	CIV ENG 2200 or MECH ENG 2350 or MECH ENG 2519 or PHYSICS 2305 or CHEM 2210	Engineering Mechanics-Statics (3) or Engineering Mechanics-Dynamics (2) or Thermodynamics (3) or Intro to Modern Physics (3) or Organic Chemistry I (4)	3	
PHYS 210	Engineering Circuit Analysis	3	EE 2100**	Circuits I **A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for EE 2100.	4	
MATH 274	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.						
LITT 241 or LITT 242 or LITT 235 or LITT 236 or HIST 231* or HIST 232* or ART 141 or MUSI 130	British Literature I or British Literature II or American Literature I or American Literature II or American Republic: Beginnings-1877* or American Nation: 1877-Present* or History of Art I or Appreciation 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.						
HIST 131 or HIST 132* or GEOG 132 or PHIL 131 or PHIL 231 or POL SCI 131* or PSYC 131 or ECON 152 or ECON 151 or Foreign Language	Western Civilization I or Western Civilization II* or Geography by World Regions or Intro to Philosophy or Fundamentals of Logic Reasoning 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	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.						
ENGL 132 or ENGL 137	First-Year English II or Technical Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3	
Electives	Maximum Free Electives	3	Electives	Maximum Free Electives	3	
	Group 2 Major Requirements	38		Group 2 Major Requirements	39	
	Group 1 Core Requirements	31		Group 1 Core Requirements	27	
	Total Hours	69		Total Hours*	69	
*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

Lewis and Clark Community College			Semester	Missouri S&T		
SPCH 131	Public Speaking	3	SPMS 1185	Principles of Speech	3	
CHEM 141	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5	
CIS 235	C++ Programming	3	CS 1500	Computational Problem Solving	3	
PHYS 241 and PHYS 242	Applied Mechanics-Statics (3) and Applied Mechanics-Dynamics (3)		CIV ENG 2200 and MECH ENG 2350	Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (2)		
BOTH of the courses above or ONE of the courses below.	Both courses above combined or any one of the following courses will satisfy a required engineering science elective.		BOTH of the courses above or ONE of the courses below.	Both courses above combined or any one of the following courses will satisfy a required engineering science elective.		
OR	OR	3	OR	OR	3	
PHYS 246 or PHYS 244 or CHEM 261	Thermodynamics (3) or Intro to Modern Physics (3) Organic Chemistry I (4)		MECH ENG 2519 or PHYSICS 2311 or CHEM 2210	Thermodynamics (3) or Modern Physics I (3) or Organic Chemistry I (3)		
PHYS 210	Engineering Circuit Analysis	3	ELEC ENG 2100*, 2101	Circuits I* (3) and Circuit Analysis Lab (1)	4	
MATH 274	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.						
LITT 241 or LITT 242 or LITT 235 or LITT 236 or HIST 231* or HIST 232* or ART 141 or MUSI 130	British Literature I or British Literature II or American Literature I or American Literature II or American Republic: Beginnings-1877* or American Nation: 1877-Present* or History of Art I or Appreciation 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 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.						
HIST 131 or HIST 132* or GEOG 132 or PHIL 131 or PHIL 231 or POL SCI 131* or PSYC 131 or ECON 152 or ECON 151 or Foreign Language	Western Civilization I or Western Civilization II* or Geography by World Regions or Intro to Philosophy or Fundamentals of Logic Reasoning 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	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.						
ENGL 132 or ENGL 137	First-Year English II or Technical Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3	
Electives	Maximum Free Electives	6	Electives	Maximum Free Electives	6	
	Group 2 Major Requirements	41		Group 2 Major Requirements	42	
	Group 1 Core Requirements	31		Group 1 Core Requirements	27	
	Total Hours	72		Total Hours*	69	
*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

Lewis and Clark Community College		Semester	Missouri S&T			
SPCH 131	Public Speaking	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
CHEM 141	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5	
CIS 235	C++ Programming	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3	
PHYS 210	Engineering Circuit Analysis	3	ELEC ENG 2800	Electrical Circuits	3	
PHYS 241	Applied Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
PHYS 242	Applied Mechanics-Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2	
PHYS 246	Thermodynamics	3	MECH ENG 2519*	Thermodynamics* *Will be substituted for MECH ENG 2527.	3	
PHYS 245	Mechanics of Solids	3	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.						
LITT 241 or LITT 242 or LITT 235 or LITT 236 or HIST 231* or HIST 232* or ART 141 or MUSI 130	British Literature I or British Literature II or American Literature I or American Literature II or American Republic: Beginnings-1877* or American Nation: 1877-Present* or History of Art I or Appreciation 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 to include PSYCH 1101.						
PSYC 131	General Psychology	3	PSYCH 1101	General Psychology Required	3	
HIST 131 or HIST 132* or GEOG 132 or PHIL 131 or PHIL 231 or POL SCI 131* or ECON 152 or ECON 151 or Foreign Language	Western Civilization I or Western Civilization II* or Geography by World Regions or Intro to Philosophy or Fundamentals of Logic Reasoning 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	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.						
ENGL 132 or ENGL 137	First-Year English II or Technical Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3	
No free electives applied to the degree.		0	Electives	Maximum Free Electives	0	
Group 2 Major Requirements		41		Group 2 Major Requirements	40	
Group 1 Core Requirements		31		Group 1 Core Requirements	27	
Total Hours		72			Total Hours*	61
*S&T advisor permission is required to transfer more than 61 credits toward the S&T Engineering Management degree.						

*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

Lewis and Clark Community College		Semester	Missouri S&T			
ENGL 132 or ENGL 137 or SPCH 131	First-Year English II or Technical Writing or Public Speaking	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
PHSC 145	Intro Geology & Physical Geography	3	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3	
CHEM 141	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5	
CHEM 142	General Chemistry II	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) *CHEM 1510 is not a degree requirement; transfers as general elective credit.	3	
BIOL 130 or BIOL 131	Fundamentals of Biological Science or Biology: A Contemporary Approach	4	BIO SCI 1113, 1219* or BIO SCI 1113	General Biology (3) and Lab* (1) or General Biology (3) *Bio Sci 1219 is not a degree requirement; transfers as general elective credit.	3	
PHYS 241	Applied Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
PHYS 242	Applied Mechanics-Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2	
PHYS 245	Mechanics of Solids	3	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.						
LITT 241 or LITT 242 or LITT 235 or LITT 236 or HIST 231* or HIST 232* or ART 141 or MUSI 130	British Literature I or British Literature II or American Literature I or American Literature II or American Republic: Beginnings-1877* or American Nation: 1877-Present* or History of Art I or Appreciation 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 to include HISTORY 1200						
HIST 132*	Western Civilization II* *Satisfies the State of Missouri government requirement.	3	HISTORY 1200*	Modern Western Civilization* *Satisfies the State of Missouri Government requirement.	3	
PHIL 131 or PHIL 231 or POL SCI 131* or PSYC 131 or ECON 152 or ECON 151 or Foreign Language	Intro to Philosophy or Fundamentals of Logic Reasoning 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	PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYC 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		31	Group 1 Core Requirements		27	
Total Hours		72			Total Hours*	64
*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

Lewis and Clark Community College			Semester	Missouri S&T		
ENGL 137	Technical Writing	3	ENGLISH 3560	Technical Writing	3	
CHEM 141	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5	
CIS 235	C++ Programming	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3	
PHSC 145	Intro Geology & Physical Geography	3	GEO ENG 1150 (GEOLOGY 1110)	Physical and Environmental Geology	3	
PHYS 241	Applied Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
PHYS 242	Applied Mechanics-Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2	
PHYS 245	Mechanics of Solids	3	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.						
LITT 241 or LITT 242 or LITT 235 or LITT 236 or HIST 231* or HIST 232* or ART 141 or MUSI 130	British Literature I or British Literature II or American Literature I or American Literature II or American Republic: Beginnings-1877* or American Nation: 1877-Present* or History of Art I or Appreciation 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.						
HIST 131 or HIST 132* or GEOG 132 or PHIL 131 or PHIL 231 or POL SCI 131* or PSYC 131 or ECON 152 or ECON 151 or Foreign Language	Western Civilization I or Western Civilization II* or Geography by World Regions or Intro to Philosophy or Fundamentals of Logic Reasoning 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	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		37	
Group 1 Core Requirements		31	Group 1 Core Requirements		27	
Total Hours		69	Total Hours*		64	
*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

Lewis and Clark Community College		Semester	Missouri S&T		
ENGL 132 or ENGL 137 or SPCH 131	First-Year English II or Technical Writing or Public Speaking	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 141	General Chemistry I	5	CHEM 1310*, 1319	General Chemistry I* and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
CIS 235	C++ Programming	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
PHYS 210	Engineering Circuit Analysis	3	ELEC ENG 2800	Electrical Circuits	3
PHYS 241	Applied Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHYS 242	Applied Mechanics - Dynamics	3	MECH ENG 2360	Dynamics	3
PHYS 246	Thermodynamics	3	MECH ENG 2519	Thermodynamics	3
PHYS 245	Mechanics of Solids	3	CIV ENG 2210	Mechanics of Materials	3
MATH 274	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.					
LITT 241 or LITT 242 or LITT 235 or LITT 236 or HIST 231* or HIST 232* or ART 141 or MUSI 130	British Literature I or British Literature II or American Literature I or American Literature II or American Republic: Beginnings-1877* or American Nation: 1877-Present* or History of Art I or Appreciation 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.					
HIST 131 or HIST 132* or GEOG 132 or PHIL 131 or PHIL 231 or POL SCI 131* or PSYC 131 or ECON 152 or ECON 151 or Foreign Language	Western Civilization I or Western Civilization II* or Geography by World Regions or Intro to Philosophy or Fundamentals of Logic Reasoning 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	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		44	Group 2 Major Requirements		44
Group 1 Core Requirements		31	Group 1 Core Requirements		27
Total Hours		75	Total Hours*		71
*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

Lewis and Clark Community College		Semester	Missouri S&T		
ENGL 132 or ENGL 137 or SPCH 131	First-Year English II or Technical Writing or Public Speaking	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
PHYS 241	Applied Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHYS 245	Mechanics of Solids	3	CIV ENG 2210	Mechanics of Materials	3
CHEM 141	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CHEM 142	General Chemistry II	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3
CHEM 261 or PHYS 210 or PHYS 244	Organic Chemistry or Engineering Circuit Analysis or Intro to Modern Physics	3	CHEM 2210 or EE 2800 or PHYSICS 2305	Organic Chemistry I (3) or Electrical Circuits (3) or Intro to Modern Physics (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.					
LITT 241 or LITT 242 or LITT 235 or LITT 236 or HIST 231* or HIST 232* or ART 141 or MUSI 130	British Literature I or British Literature II or American Literature I or American Literature II or American Republic: Beginnings-1877* or American Nation: 1877-Present* or History of Art I or Appreciation 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.					
HIST 131 or HIST 132* or GEOG 132 or PHIL 131 or PHIL 231 or POL SCI 131* or PSYC 131 or ECON 152 or ECON 151 or Foreign Language	Western Civilization I or Western Civilization II* or Geography by World Regions or Intro to Philosophy or Fundamentals of Logic Reasoning 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	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYC 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		40	Group 2 Major Requirements		38
Group 1 Core Requirements		31	Group 1 Core Requirements		27
Total Hours		71	Total Hours*		65
*S&T advisor permission is required to transfer more than 68 credits toward the S&T Metallurgical Engineering degree.					

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

Mining Engineering Group 2 Major Requirements

<u>Lewis and Clark Community College</u>		<u>Semester</u>	<u>Missouri S&T</u>	
ENGL 132 or ENGL 137 or SPCH 131	First-Year English II or Technical Writing or Public Speaking	3	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 141	General Chemistry I	5	CHEM 1310, 1319 General Chemistry I and Lab	5
PHYS 241	Applied Mechanics-Statics	3	CIV ENG 2200 Engineering Mechanics-Statics	3
PHYS 242	Applied Mechanics-Dynamics	3	MECH ENG 2350 Engineering Mechanics-Dynamics	2
PHYS 246	Thermodynamics	3	MECH ENG 2519* Thermodynamics* *Will be substituted for MECH ENG 2527.	3
PHYS 245	Mechanics of Solids	3	CIV ENG 2210 Mechanics of Materials	3
PHSC 145	Intro Geology & Physical Geography	3	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.				
LITT 241 or LITT 242 or LITT 235 or LITT 236 or HIST 231* or HIST 232* or ART 141 or MUSI 130	British Literature I or British Literature II or American Literature I or American Literature II or American Republic: Beginnings-1877* or American Nation: 1877-Present* or History of Art I or Appreciation 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	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.				
HIST 131 or HIST 132* or GEOG 132 or PHIL 131 or PHIL 231 or POL SCI 131* or PSYC 131 or ECON 152 or ECON 151 or Foreign Language	Western Civilization I or Western Civilization II* or Geography by World Regions or Intro to Philosophy or Fundamentals of Logic Reasoning 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	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	6
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives	0
Group 2 Major Requirements		35	Group 2 Major Requirements	34
Group 1 Core Requirements		31	Group 1 Core Requirements	27
Total Hours		66	Total Hours*	61

*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

Lewis and Clark Community College			Semester	Missouri S&T	
ENGL 132 or ENGL 137 or SPCH 131	First-Year English II or Technical Writing or Public Speaking	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 141	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CIS 235	C++ Programming	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
MATH 274	Linear Algebra	3	MATH 3108	Linear Algebra	3
PHYS 241	Applied Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHYS 245	Mechanics of Solids	3	CIV ENG 2210	Mechanics of Materials	3
PHYS 210	Engineering Circuit Analysis	3	ELEC ENG 2800	Electrical Circuits	3
PHYS 246	Thermodynamics	3	MECH ENG 2519	Thermodynamics	3
PHYS 244	Intro to 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.					
*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.					
LITT 241 or LITT 242 or LITT 235 or LITT 236 or HIST 231* or HIST 232* or ART 141 or MUSI 130	British Literature I or British Literature II or American Literature I or American Literature II or American Republic: Beginnings-1877* or American Nation: 1877-Present* or History of Art I or Appreciation 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.					
ECON 152 or ECON 151	Principles of Microeconomics or Principles of Macroeconomics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3
HIST 131 or HIST 132* or GEOG 132 or PHIL 131 or PHIL 231 or POL SCI 131* or PSYC 131 or Foreign Language	Western Civilization I or Western Civilization II* or Geography by World Regions or Intro to Philosophy or Fundamentals of Logic Reasoning or American Government* or General 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 PSYC 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		44	Group 2 Major Requirements		44
Group 1 Core Requirements		31	Group 1 Core Requirements		27
Total Hours		75	Total Hours*		71
*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

Lewis and Clark Community College		Semester	Missouri S&T			
ENGL 132 or ENGL 137 or SPCH 131	First-Year English II or Technical Writing or Public Speaking	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
CHEM 141	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5	
PHSC 145	Intro Geology & Physical Geography	3	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3	
PHYS 241	Applied Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
PHYS 242	Applied Mechanics-Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2	
PHYS 245	Mechanics of Solids	3	CIV ENG 2210	Mechanics of Materials	3	
PHYS 246	Thermodynamics	3	MECH ENG 2519*	Thermodynamics* *Will be substituted for MECH ENG 2527.	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.						
LITT 241 or LITT 242 or LITT 235 or LITT 236 or HIST 231* or HIST 232* or ART 141 or MUSI 130	British Literature I or British Literature II or American Literature I or American Literature II or American Republic: Beginnings-1877* or American Nation: 1877-Present* or History of Art I or Appreciation 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.						
HIST 131 or HIST 132* or GEOG 132 or PHIL 131 or PHIL 231 or POL SCI 131* or PSYC 131 or ECON 152 or ECON 151 or Foreign Language	Western Civilization I or Western Civilization II* or Geography by World Regions or Intro to Philosophy or Fundamentals of Logic Reasoning 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	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		37	
Group 1 Core Requirements		31	Group 1 Core Requirements		27	
Total Hours		69			Total Hours*	64
*S&T advisor permission is required to transfer more than 69 credits toward the S&T Petroleum Engineering degree.						