

Westminster 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.

Westminster College			Semester	Missouri S&T		
MAT 124	Calculus I	5		MATH 1214	Calculus I	4
MAT 214	Calculus II	4		MATH 1215	Calculus II	4
MAT 224	Calculus III	4		MATH 2222	Calculus III	4
MAT 312	Differential Equations	3		MATH 3304	Elementary Differential Equations	3
PHY 201	Physics I	4		PHYSICS 1135	Engineering Physics I	4
PHY 212	Physics II	4		PHYSICS 2135	Engineering Physics II	4
ENG 105	Academic Writing I	3		ENGLISH 1120	Exposition and Argumentation	3
Total Hours			27	Total Hours		

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

Westminster College		Semester	Missouri S&T		
EGR 101	Intro to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3
ENG 106 or ENG 265 or SPE 101	Academic Writing II or Technical and Web Writing or Intro to Speech Communication	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3
CHM 114, 115	General Chemistry I and Lab	4	CHEM 1310*, 1319	General Chemistry I and Lab <small>*CHEM 1310 will be substituted for CHEM 1305.</small>	5
CSA 304	Structured Programming	4	COMP SCI 1971, 1981	Intro to Programming Method and Lab (C++)	3
PHY 328	Analog Circuits	3	ELEC ENG 2800	Electrical Circuits	3
MAT 215 or MAT 313	Linear Algebra or Mathematical Probability and Statistics	3	MATH 3108 or STAT 3115	Linear Algebra I or Engineering Statistics <small>Will satisfy the Advanced Math/Comp Sci elective requirement.</small>	3
PHL 212 or PHL244	Intro to Ethics Business Ethics <small>or other engineering, business, bio, social ethics approved by advisor</small>	3	PHILOS 1130 or PHILOS 3235	How Should I Live? An Introduction to Ethics or Business Ethics <small>or other engineering, business, bio, social ethics approved by advisor</small>	3
Humanities, Arts, and Social Sciences General Education Requirements					
From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines.					
*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.					
Humanities and Fine Arts					
Select 6 hours from at least two specific disciplines.					
ENG 205 or ENG 206 or ENG 238 or ENG 239 or ENG 249 or HIS 103* or HIS 104*	Topics in British Literature to 1800 or British Literature since 1800 or American Literature to the Civil War or American Literature Since the Civil War or World Literature since 1800 or History of the United States to 1877* or History of the United States since 1877* <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* <small>*Satisfies the State of Missouri government requirement.</small>	6
Behavioral and Social Sciences					
Select 6 hours from at least two specific disciplines.					
HIS 105 or HIS 106* or GOG 101 or PHL 101 or PHL 218 or POL 211* or PSY 112 or ECN 212 or ECN 211or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy through Film or Intro to Logic or American Government and Politics*or Psychology as a Natural Science or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or 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 <small>*Satisfies the State of Missouri government requirement.</small>	6
Humanities, Arts, and Social Sciences					
Select 3 hours.					
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
No free electives applied to the degree.		0	Maximum Free Electives		0
Group 2 Major Requirements		38	Group 2 Major Requirements		38
Group 1 Core Requirements		27	Group 1 Core Requirements		26
Total Hours		65	Total Hours*		64
<small>*S&T advisor permission is required to transfer more than 68 credits toward the S&T Aerospace Engineering degree.</small>					

Architectural Engineering Group 2 Major Requirements

Westminster College			Semester	Missouri S&T	
EGR 101	Intro to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3
ENG 106 or ENG 265 or SPE 101	Academic Writing II or Technical and Web Writing or Intro to Speech Communication	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3
CHM 114, 115	General Chemistry I and Lab	4	CHEM 1310*, 1319	General Chemistry I and Lab <small>*CHEM 1310 will be substituted for CHEM 1305.</small>	5
MAT 313	Mathematical Probability and Statistics	3	STAT 3115	Engineering Statistics* <small>*Will be substituted for STAT 3113.</small>	3
GEO 108	Intro to 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.					
ENG 205 or ENG 206 or ENG 238 or ENG 239 or ENG 249 or HIS 103* or HIS 104*	Topics in British Literature to 1800 or British Literature since 1800 or American Literature to the Civil War or American Literature Since the Civil War or World Literature since 1800 or History of the United States to 1877* or History of the United States since 1877* <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* <small>*Satisfies the State of Missouri government requirement.</small>	6
Behavioral and Social Sciences					
Select 6 hours from at least two specific disciplines to include HISTORY 1200.					
HIS 106*	Western Civilization II* <small>*Satisfies the State of Missouri Government requirement.</small>	3	HISTORY 1200*	Modern Western Civilization* <small>*Satisfies the State of Missouri Government requirement.</small>	3
PHL 101 or PHL 218 or POL 211* or PSY 112 or ECN 212 or ECN 211or Foreign Language	Intro to Philosophy through Film or Intro to Logic or American Government and Politics*or Psychology as a Natural Science or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	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 <small>*Satisfies the State of Missouri government requirement.</small>	3
No free electives applied to the degree.		0	Maximum Free Electives		0
Group 2 Major Requirements		29	Group 2 Major Requirements		29
Group 1 Core Requirements		27	Group 1 Core Requirements		26
Total Hours		56	Total Hours*		55
<small>*S&T advisor permission is required to transfer more than 69 credits toward the S&T Architectural Engineering degree.</small>					

Biomedical Engineering-Biomanufacturing Group 2 Major Requirements

Westminster College		Semester	Missouri S&T		
SPE 101	Intro to Speech Communication	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHM 114, 115	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 124, 125	General Chemistry II (3) and Lab (1)	3	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3
CHM 314, 315	Organic Chemistry I and Lab	4	CHEM 2210, 2219	Organic Chemistry I and Lab	4
CHM 324, 325 or BIO 114, 115 or BIO 301	Organic Chemistry II and Lab (4) or Biological Processes and Lab (4) or Genetics (4)	4	CHEM 2220, 2229 or BIO SCI 1213*, 1219 or BIO SCI 2223	Organic Chemistry II and Lab or Principles of Biology* and Lab or General Genetics Applies to degree as Track Elective.	4
BIO 325	Molecular Cell Biology	4	BIO SCI 2213, 2219	Cell Biology and Lab	4
CSA 304	Structured Programming	3	COMP SCI 1971,1981*	Intro to Programming Methodology and Lab* (C++) *Will be substituted for COMP SCI 1500.	3
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. *At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.					
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.					
ENG 205 or ENG 206 or ENG 238 or ENG 239 or ENG 249 or HIS 103* or HIS 104*	Topics in British Literature to 1800 or British Literature since 1800 or American Literature to the Civil War or American Literature Since the Civil War or World Literature since 1800 or History of the United States to 1877* or History of the United States since 1877* *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* *Satisfies the State of Missouri government requirement.	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines to include PHILOS 3223.					
PHL 242	Biomedical Ethics	3	PHILOS 3223	Bioethics	3
HIS 105 or HIS 106* or GOG 101 or POL 211* or PSY 112 or ECN 212 or ECN 211 or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or American Government and Politics*or Psychology as a Natural Science 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 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
Humanities, Arts, and Social Sciences ENGLISH 3560 required.					
ENG 265	Technical and Web Writing	3	ENGLISH 3560	Technical Writing	3
No free electives applied to the degree.		0		Maximum Free Electives	0
Group 2 Major Requirements		40		Group 2 Major Requirements	41
Group 1 Core Requirements		27		Group 1 Core Requirements	26
Total Hours		67			Total Hours* 67
*S&T advisor permission is required to transfer more than 69 credit hours toward the degree.					

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Biomedical Engineering-Biomaterials Group 2 Major Requirements

Westminster College			Semester	Missouri S&T	
SPE 101	Intro to Speech Communication	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHM 114, 115	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 124, 125	General Chemistry II (3) and Lab (1)	3	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3
CHM 314, 315	Organic Chemistry I and Lab	4	CHEM 2210, 2219*	Organic Chemistry I and Lab* *CHEM 2219 Lab applies to the degree as a Track Elective (non-engineering).	4
CHM 324, 325	Organic Chemistry II and Lab	4	CHEM 2220, 2229*	Organic Chemistry II and Lab* CHEM 2229 Lab applies to the degree as a Track Elective (non-engineering).	4
BIO 114, 115	Biological Processes and Lab	4	BIO SCI 1213*, 1219*	Principles of Biology and Lab* *Applies to degree as Track Elective (Non-engineering).	4
BIO 325	Molecular Cell Biology	4	BIO SCI 2213, 2219	Cell Biology and Lab	4
CSA 304	Structured Programming	3	COMP SCI 1971,1981*	Intro to Programming Methodology and Lab* (C++) *Will be substituted for COMP SCI 1500.	3
Humanities, Arts, and Social Sciences General Education Requirements					
From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines.					
*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.					
Humanities and Fine Arts					
Select 6 hours from at least two specific disciplines.					
ENG 205 or ENG 206 or ENG 238 or ENG 239 or ENG 249 or HIS 103* or HIS 104*	Topics in British Literature to 1800 or British Literature since 1800 or American Literature to the Civil War or American Literature Since the Civil War or World Literature since 1800 or History of the United States to 1877* or History of the United States since 1877*	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877*	6
*Satisfies the State of Missouri government requirement.					
Behavioral and Social Sciences					
Select 6 hours from at least two specific disciplines.					
PHL 242	Biomedical Ethics	3	PHILOS 3223	Bioethics	3
HIS 105 or HIS 106* or GOG 101 or POL 211* or PSY 112 or ECN 212 or ECN 211or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or American Government and Politics*or Psychology as a Natural Science 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 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
Humanities, Arts, and Social Sciences					
ENGLISH 3560 required.					
ENG 265	Technical and Web 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	45
Group 1 Core Requirements		27		Group 1 Core Requirements	26
Total Hours		71		Total Hours*	71
*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>Westminster College</u>			<u>Semester</u>	<u>Missouri S&T</u>		
EGR 101	Intro to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3	
ENG 106 or ENG 265 or SPE 101	Academic Writing II or Technical and Web Writing or Intro to Speech Communication	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3	
CHM 114, 115	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
CHM 124	General Chemistry II	3	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not a degree requirement, transfers as general elective credit.</small>	3	
CHM 314, 315	Organic Chemistry I and Lab	4	CHEM 2210, 2219*	Organic Chemistry I (3) and Lab* (1) <small>Satisfies the advanced chemistry elective requirement. *The lab is not a degree requirement, transfers as general elective credit.</small>	3	
MAT 313	Mathematical Probability and Statistics	3	STAT 3115	Engineering Statistics <small>or any statistics course 3000-level or higher. Satisfies statistics elective requirement.</small>	3	
PHY 223	Physics III	3	PHYS 2305	Intro to Modern Physics	3	
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. *At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.						
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.						
ENG 205 or ENG 206 or ENG 238 or ENG 239 or ENG 249 or HIS 103* or HIS 104*	Topics in British Literature to 1800 or British Literature since 1800 or American Literature to the Civil War or American Literature Since the Civil War or World Literature since 1800 or History of the United States to 1877* or History of the United States since 1877* <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* <small>*Satisfies the State of Missouri government requirement.</small>	6	
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.						
HIS 105 or HIS 106* or GOG 101 or PHL 101 or PHL 218 or POL 211* or PSY 112 or ECN 212 or ECN 211 or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy through Film or Intro to Logic or American Government and Politics* or Psychology as a Natural Science or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or 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 <small>*Satisfies the State of Missouri government requirement.</small>	6	
Humanities, Arts, and Social Sciences Select 3 hours.						
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	
<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		27	Group 1 Core Requirements		26	
Total Hours		65			Total Hours*	
					64	
<small>*S&T advisor permission is required to transfer more than 68 credits toward the S&T Ceramic Engineering degree.</small>						

Chemical Engineering or Chemical Engineering - Biochemical Engineering Emphasis Group 2 Major Requirements

<u>Westminster College</u>			<u>Semester</u>	<u>Missouri S&T</u>		
EGR 101	Intro to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3	
SPE 101	Intro to Speech Communication	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
CHM 114, 115	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
CHM 124	General Chemistry II	3	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis* (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3	
CHM 314 , 315	Organic Chemistry I and Lab	4	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	
CHM 324 or CHM 334,335 or BIO 325,206	Organic Chemistry II (3) or Analytical Chemistry I (3) and Lab (1) or Molecular Cell Biology (4) and Lab Instruction Techniques (1) Select up to 8 hours from these options.	8	CHEM 2220 or CHEM 2510 or BIO SCI 2213, 2219	Organic Chemistry II (3) or Analytical Chemistry (4) or Cell Biology and Lab (4) Applies to the degree as required science elective credits. Select up to 9 hours from these options or CHEM 2219 Organic Chemistry Lab.	8	
CSA 304	Structured Programming	3	COMP SCI 1971,1981*	Intro to Programming Methodology and Lab* (C++) *Will be substituted for COMP SCI 1500.	3	
MAT 313	Mathematical Probability and Statistics	3	STAT 3115	Engineering Statistics* *Will be substituted for STAT 3113.	3	
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. *At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.						
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.						
ENG 205 or ENG 206 or ENG 238 or ENG 239 or ENG 249 or HIS 103* or HIS 104*	Topics in British Literature to 1800 or British Literature since 1800 or American Literature to the Civil War or American Literature Since the Civil War or World Literature since 1800 or History of the United States to 1877* or History of the United States since 1877* *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* *Satisfies the State of Missouri government requirement.	6	
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.						
HIS 105 or HIS 106* or GOG 101 or PHL 101 or PHL 218 or POL 211* or PSY 112 or ECN 212 or ECN 211or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy through Film or Intro to Logic or American Government and Politics*or Psychology as a Natural Science 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.						
ENG 265	Technical and Web Writing	3	ENGLISH 3560	Technical Writing	3	
No free electives applied to the degree.		0		Maximum Free Electives	0	
Group 2 Major Requirements		46		Group 2 Major Requirements	47	
Group 1 Core Requirements		27		Group 1 Core Requirements	26	
Total Hours		73		Total Hours*	73	
*S&T advisor permission is required to transfer more than 68 credits toward the S&T Chemical Engineering degree.						

*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

Westminster College			Semester	Missouri S&T		
EGR 101	Intro to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3	
ENG 106 or ENG 265 or SPE 101	Academic Writing II or Technical and Web Writing or Intro to Speech Communication	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3	
CHM 114, 115	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
GEO 108	Intro to Physical Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3	
MAT 313	Mathematical Probability and Statistics	3	STAT 3115	Engineering Statistics* <small>*Will be substituted for STAT 3113.</small>	3	
Humanities, Arts, and Social Sciences General Education Requirements						
From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines.						
*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.						
Humanities and Fine Arts						
Select 6 hours from at least two specific disciplines.						
ENG 205 or ENG 206 or ENG 238 or ENG 239 or ENG 249 or HIS 103* or HIS 104*	Topics in British Literature to 1800 or British Literature since 1800 or American Literature to the Civil War or American Literature Since the Civil War or World Literature since 1800 or History of the United States to 1877* or History of the United States since 1877* <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* <small>*Satisfies the State of Missouri government requirement.</small>	6	
Behavioral and Social Sciences						
Select 6 hours from at least two specific disciplines.						
HIS 105 or HIS 106* or GOG 101 or PHL 101 or PHL 218 or POL 211* or PSY 112 or ECN 212 or ECN 211or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy through Film or Intro to Logic or American Government and Politics*or Psychology as a Natural Science or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or 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 <small>*Satisfies the State of Missouri government requirement.</small>	6	
Humanities, Arts, and Social Sciences						
Select 3 hours.						
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	
No free electives applied to the degree.		0	Maximum Free Electives		0	
Group 2 Major Requirements		32	Group 2 Major Requirements		32	
Group 1 Core Requirements		27	Group 1 Core Requirements		26	
Total Hours		59	Total Hours*		58	
<small>*S&T advisor permission is required to transfer more than 69 credits toward the S&T Civil Engineering degree.</small>						

Computer Engineering Group 2 Major Requirements

Westminster College		Semester	Missouri S&T		
SPE 101	Intro to Speech Communication	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHM 114, 115	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CSA 304	Structured Programming	3	COMP SCI 1500	Computational Problem Solving	3
PHY 223 or CHM 314 or BIO 325 or BIO 301	Physics III (3) or Organic Chemistry I (3) or Molecular Cell Biology (4) or Genetics (4)	3	PHYSICS 2305 or CHEM 2210 or BIO SCI 2213 or BIO SCI 2223	Intro to Modern Physics (3) or Organic Chemistry I (3) or Cell Biology (3) or General Genetics (3) Satisfies a required engineering/science elective.	3
PHY 328	Analog Circuits	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 or MAT 331	Linear Algebra or Mathematics Seminar	3	MATH 3108 or MATH 3109	Linear Algebra or Foundations of Mathematics Will satisfy a required math elective.	3
MAT 313	Mathematical Probability and Statistics	3	STAT 3115	Engineering Statistics Will be substituted for STAT 3117.	3
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. *At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.					
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.					
ENG 205 or ENG 206 or ENG 238 or ENG 239 or ENG 249 or HIS 103* or HIS 104*	Topics in British Literature to 1800 or British Literature since 1800 or American Literature to the Civil War or American Literature Since the Civil War or World Literature since 1800 or History of the United States to 1877* or History of the United States since 1877* *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* *Satisfies the State of Missouri government requirement.	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
HIS 105 or HIS 106* or GOG 101 or PHL 101 or PHL 218 or POL 211* or PSY 112 or ECN 212 or ECN 211or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy through Film or Intro to Logic or American Government and Politics*or Psychology as a Natural Science 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.					
ENG 106 or ENG 265	Academic Writing II or Technical and Web 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	40		Group 2 Major Requirements	42
	Group 1 Core Requirements	27		Group 1 Core Requirements	26
	Total Hours	67		Total Hours*	68
*S&T advisor permission is required to transfer more than 68 credits toward the S&T Computer Engineering degree..					

Electrical Engineering Group 2 Major Requirements

Westminster College			Semester	Missouri S&T		
EGR 101	Intro to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3	
SPE 101	Intro to Speech Communication	3	SPMS 1185	Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3	
CHM 114, 115	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
CSA 304	Structured Programming	3	COMP SCI 1500	Computational Problem Solving	3	
PHY 223 or CHM 314 or BIO 325 or BIO 301	Physics III (3) or Organic Chemistry I (3) or Molecular Cell Biology (4) or Genetics (4)	3	PHYSICS 2305 or CHEM 2210 or BIO SCI 2213 or BIO SCI 2223	Intro to Modern Physics (3) or Organic Chemistry I (3) or Cell Biology (3) or General Genetics (3)	3	
PHY 328	Analog Circuits	3	ELEC ENG 2100*, 2101	Circuits I* (3) and Circuit Analysis Lab (1) <small>*A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for ELEC ENG 2100.</small>	4	
MTH 261	Linear Algebra	3	MATH 3108	Linear Algebra	3	
MAT 313	Mathematical Probability and Statistics	3	STAT 3115	Engineering Statistics <small>Will be substituted for STAT 3117.</small>	3	
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. *At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.						
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.						
ENG 205 or ENG 206 or ENG 238 or ENG 239 or ENG 249 or HIS 103* or HIS 104*	Topics in British Literature to 1800 or British Literature since 1800 or American Literature to the Civil War or American Literature Since the Civil War or World Literature since 1800 or History of the United States to 1877* or History of the United States since 1877* <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* <small>*Satisfies the State of Missouri government requirement.</small>	6	
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.						
HIS 105 or HIS 106* or GOG 101 or PHL 101 or PHL 218 or POL 211* or PSY 112 or ECN 212 or ECN 211or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy through Film or Intro to Logic or American Government and Politics* or Psychology as a Natural Science or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or 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 <small>*Satisfies the State of Missouri government requirement.</small>	6	
Humanities, Arts, and Social Sciences Select 3 hours.						
ENG 106 or ENG 265	Academic Writing II or Technical and Web 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	46		Group 2 Major Requirements	48	
	Group 1 Core Requirements	27		Group 1 Core Requirements	26	
	Total Hours	73		Total Hours*	74	
<small>*S&T advisor permission is required to transfer more than 68 credits toward the S&T Electrical Engineering degree.</small>						

Engineering Management Group 2 Major Requirements

Westminster College			Semester	Missouri S&T		
EGR 101	Intro to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3	
SPE 101	Intro to Speech Communication	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
CHM 114, 115	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
CSA 304	Structured Programming	3	COMP SCI 1971, 1981	Intro to Programming Method and Lab (C++)	3	
PHY 328	Analog Circuits	3	ELEC ENG 2800	Electrical Circuits	3	
MAT 313	Mathematical Probability and Statistics	3	STAT 3115	Engineering Statistics	3	
Humanities, Arts, and Social Sciences General Education Requirements						
From the options listed in each group below, select 15 hours to include						
6 hours Humanities and Fine Arts from at least two specific disciplines and						
6 hours Behavioral and Social Sciences from at least two specific disciplines.						
*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.						
Humanities and Fine Arts						
Select 6 hours from at least two specific disciplines.						
ENG 205 or ENG 206 or ENG 238 or ENG 239 or ENG 249 or HIS 103* or HIS 104*	Topics in British Literature to 1800 or British Literature since 1800 or American Literature to the Civil War or American Literature Since the Civil War or World Literature since 1800 or History of the United States to 1877* or History of the United States since 1877*	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877*	6	
*Satisfies the State of Missouri government requirement.						
Behavioral and Social Sciences						
Select 6 hours from at least two specific disciplines to include PSYCH 1101.						
PSY 112	Psychology as a Natural Science	3	PSYCH 1101	General Psychology Required	3	
HIS 105 or HIS 106* or GOG 101 or PHL 101 or PHL 218 or POL 211* or ECN 212 or ECN 211or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy through Film or Intro to Logic or American Government and Politics* 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.						
ENG 106 or ENG 265	Academic Writing II or Technical and Web 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		34	Group 2 Major Requirements		35	
Group 1 Core Requirements		27	Group 1 Core Requirements		26	
Total Hours		61	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

<u>Westminster College</u>			<u>Semester</u>	<u>Missouri S&T</u>		
EGR 101	Intro to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3	
ENG 106 or ENG 265 or SPE 101	Academic Writing II or Technical and Web Writing or Intro to Speech Communication	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3	
GEO 108	Intro to Physical Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3	
CHM 114, 115	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
CHM 124	General Chemistry II	3	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not a degree requirement, transfers as general elective credit.</small>	3	
BIO 114, 115	Biological Processes and Lab	4	BIO SCI 1113, 1219*	Principles of Biology (3) and Lab* (1) <small>*The lab is not a degree requirement, transfers as general elective credit.</small>	3	
MAT 313	Mathematical Probability and Statistics	3	STAT 3115	Engineering Statistics* <small>*Will be substituted for STAT 3113.</small>	3	
Humanities, Arts, and Social Sciences General Education Requirements						
From the options listed in each group below, select 12 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines.						
*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.						
Humanities and Fine Arts						
Select 6 hours from at least two specific disciplines.						
ENG 205 or ENG 206 or ENG 238 or ENG 239 or ENG 249 or HIS 103* or HIS 104*	Topics in British Literature to 1800 or British Literature since 1800 or American Literature to the Civil War or American Literature Since the Civil War or World Literature since 1800 or History of the United States to 1877* or History of the United States since 1877* <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* <small>*Satisfies the State of Missouri government requirement.</small>	6	
Behavioral and Social Sciences						
Select 6 hours from at least two specific disciplines to include HISTORY 1200						
HIS 106*	Western Civilization II* <small>*Satisfies the State of Missouri Government requirement.</small>	3	HISTORY 1200*	Modern Western Civilization* <small>*Satisfies the State of Missouri Government requirement.</small>	3	
PHL 101 or PHL 218 or POL 211* or PSY 112 or ECN 212 or ECN 211or Foreign Language	Intro to Philosophy through Film or Intro to Logic or American Government and Politics*or Psychology as a Natural Science or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	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 <small>*Satisfies the State of Missouri government requirement.</small>	3	
No free electives applied to the degree.		0	Maximum Free Electives		0	
Group 2 Major Requirements		36	Group 2 Major Requirements		35	
Group 1 Core Requirements		27	Group 1 Core Requirements		26	
Total Hours		63			Total Hours*	
*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

Westminster College			Semester	Missouri S&T		
EGR 101	Intro to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3	
ENG 265	Technical and Web Writing	3	ENGLISH 3560	Technical Writing	3	
CHM 114, 115	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
CSA 304	Structured Programming	3	COMP SCI 1971, 1981	Intro to Programming Method and Lab (C++)	3	
GEO 108	Intro to Physical Geology	4	GEO ENG 1150 (GEOLOGY 1110)	Physical and Environmental Geology	3	
MAT 313	Mathematical Probability and Statistics	3	STAT 3115	Engineering Statistics Applies to the degree as a required statistics 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.						
ENG 205 or ENG 206 or ENG 238 or ENG 239 or ENG 249 or HIS 103* or HIS 104*	Topics in British Literature to 1800 or British Literature since 1800 or American Literature to the Civil War or American Literature Since the Civil War or World Literature since 1800 or History of the United States to 1877* or History of the United States since 1877* *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* *Satisfies the State of Missouri government requirement.	6	
Behavioral and Social Sciences						
Select 6 hours from at least two specific disciplines.						
HIS 105 or HIS 106* or GOG 101 or PHL 101 or PHL 218 or POL 211* or PSY 112 or ECN 212 or ECN 211or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy through Film or Intro to Logic or American Government and Politics*or Psychology as a Natural Science 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		35	Group 2 Major Requirements		35	
Group 1 Core Requirements		27	Group 1 Core Requirements		26	
Total Hours		62			Total Hours*	
					61	
*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

Westminster College			Semester	Missouri S&T		
EGR 101	Intro to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3	
ENG 106 or ENG 265 or SPE 101	Academic Writing II or Technical and Web Writing or Intro to Speech Communication	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3	
CHM 114, 115	General Chemistry I and Lab	4	CHEM 1310*, 1319	General Chemistry I and Lab <small>*CHEM 1310 will be substituted for CHEM 1305.</small>	5	
CSA 304	Structured Programming	3	COMP SCI 1971, 1981	Intro to Programming Method and Lab (C++)	3	
PHY 328	Analog Circuits	3	ELEC ENG 2800	Electrical Circuits	3	
MAT 215 or MAT 313	Linear Algebra or Mathematical Probability and Statistics	3	MATH 3108 or STAT 3115	Linear Algebra I or Engineering Statistics <small>Satisfies the Advanced Math/Statistics elective requirement.</small>	3	
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. *At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.						
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.						
ENG 205 or ENG 206 or ENG 238 or ENG 239 or ENG 249 or HIS 103* or HIS 104*	Topics in British Literature to 1800 or British Literature since 1800 or American Literature to the Civil War or American Literature Since the Civil War or World Literature since 1800 or History of the United States to 1877* or History of the United States since 1877* <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* <small>*Satisfies the State of Missouri government requirement.</small>	6	
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.						
HIS 105 or HIS 106* or GOG 101 or PHL 101 or PHL 218 or POL 211* or PSY 112 or ECN 212 or ECN 211or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy through Film or Intro to Logic or American Government and Politics* or Psychology as a Natural Science or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or 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 <small>*Satisfies the State of Missouri government requirement.</small>	6	
Humanities, Arts, and Social Sciences Select 3 hours.						
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives		0	
Group 2 Major Requirements		34	Group 2 Major Requirements		35	
Group 1 Core Requirements		27	Group 1 Core Requirements		26	
Total Hours		61	Total Hours*		61	
<small>*S&T advisor permission is required to transfer more than 68 credits toward the S&T Mechanical Engineering degree.</small>						

Metallurgical Engineering Group 2 Major Requirements

Westminster College			Semester	Missouri S&T		
EGR 101	Intro to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3	
ENG 106 or ENG 265 or SPE 101	Academic Writing II or Technical and Web Writing or Intro to Speech Communication	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	
MAT 313	Mathematical Probability and Statistics	3	STAT 3115	Engineering Statistics	3	
CHM 114, 115	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
CHM 124	General Chemistry II	3	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3	
CHM 314 or CHM 424 or PHY 328 or PHY 223	Organic Chemistry I or Physical Chemistry I or Analog Circuits or Physics III	3	CHEM 2210 or CHEM 3410 or EE 2800 or PHYSICS 2305	Organic Chemistry I (3) or Chemical Thermodynamics 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.						
ENG 205 or ENG 206 or ENG 238 or ENG 239 or ENG 249 or HIS 103* or HIS 104*	Topics in British Literature to 1800 or British Literature since 1800 or American Literature to the Civil War or American Literature Since the Civil War or World Literature since 1800 or History of the United States to 1877* or History of the United States since 1877* *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* *Satisfies the State of Missouri government requirement.	6	
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.						
HIS 105 or HIS 106* or GOG 101 or PHL 101 or PHL 218 or POL 211* or PSY 112 or ECN 212 or ECN 211or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy through Film or Intro to Logic or American Government and Politics*or Psychology as a Natural Science 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	
Maximum Free Electives		3	Maximum Free Electives		3	
Group 2 Major Requirements		37	Group 2 Major Requirements		38	
Group 1 Core Requirements		27	Group 1 Core Requirements		26	
Total Hours		64	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

Westminster College		Semester	Missouri S&T		
EGR 101	Intro to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3
ENG 106 or	Academic Writing II or		ENGLISH 1160 or	Writing and Research or	
ENG 265 or	Technical and Web Writing or	3	ENGLISH 3560 or	Technical Writing or	3
SPE 101	Intro to Speech Communication		SPMS 1185	Principles of Speech	
				Applies to degree as Gen Ed Communication requirement.	
MAT 313	Mathematical Probability and Statistics	3	STAT 3115	Engineering Statistics	3
CHM 114, 115	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5
GEO 108	Intro to 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.					
ENG 205 or	Topics in British Literature to 1800 or		ENGLISH 1211 or	British Literature I: The Beginnings to 1800 or	
ENG 206 or	British Literature since 1800 or		ENGLISH 1212 or	British Literature II: 1800 to Present or	
ENG 238 or	American Literature to the Civil War or		ENGLISH 1221 or	American Literature: 1600 to 1865 or	
ENG 239 or	American Literature Since the Civil War or		ENGLISH 1222 or	American Literature: 1865 to Present or	
ENG 249 or	World Literature since 1800 or	6	ENGLISH 1231 or	World Literature I: Beginnings to the Renaissance or	6
HIS 103* or	History of the United States to 1877* or		HISTORY 1300* or	American History to 1877* or	
HIS 104*	History of the United States since 1877*		HISTORY 1310*	American History Since 1877*	
*Satisfies the State of Missouri government requirement.					
Behavioral and Social Sciences					
Select 6 hours from at least two specific disciplines.					
HIS 105 or	Western Civilization I or		HISTORY 1100 or	Early Western Civilization or	
HIS 106* or	Western Civilization II* or		HISTORY 1200* or	Modern Western Civilization* or	
GOG 101 or	Intro to Geography or		HISTORY 2110 or	World Regional Geography or	
PHL 101 or	Intro to Philosophy through Film or		PHILOS 1105 or	Self and World: Intro to Philosophy or	
PHL 218 or	Intro to Logic or		PHILOS 1115 or	Logic and Reasoning: An Introduction or	
POL 211* or	American Government and Politics*or	6	POL SCI 1200* or	American Government*or	6
PSY 112 or	Psychology as a Natural Science or		PSYCH 1101 or	General Psychology or	
ECN 212 or	Principles of Microeconomics or		ECON 1100 or	Principles of Microeconomics or	
ECN 211or	Principles of 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.					
No free electives applied to the degree.		0	Maximum Free Electives		0
Group 2 Major Requirements		29	Group 2 Major Requirements		29
Group 1 Core Requirements		27	Group 1 Core Requirements		26
Total Hours		56			Total Hours*
					55
*S&T advisor permission is required to transfer more than 68 credits toward the S&T Mining Engineering degree.					

Nuclear Engineering Group 2 Major Requirements

Westminster College		Semester	Missouri S&T		
EGR 101	Intro to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3
ENG 106 or ENG 265 or SPE 101	Academic Writing II or Technical and Web Writing or Intro to Speech Communication	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3
CHM 114, 115	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CSA 304	Structured Programming	3	COMP SCI 1971, 1981	Intro to Programming Method and Lab (C++)	3
MAT 215 or	Linear Algebra or	3	MATH 3108 or	Linear Algebra or	3
MAT 331	Mathematics Seminar	3	MATH 3109	Foundations of Mathematics	3
MAT 313	Mathematical Probability and Statistics	3	STAT 3115	Engineering Statistics	3
PHY 328	Analog Circuits	3	EE 2800	Electrical Circuits	3
PHY 223	Physics III	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.					
ENG 205 or ENG 206 or ENG 238 or ENG 239 or ENG 249 or HIS 103* or HIS 104*	Topics in British Literature to 1800 or British Literature since 1800 or American Literature to the Civil War or American Literature Since the Civil War or World Literature since 1800 or History of the United States to 1877* or History of the United States since 1877*	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877*	6
*Satisfies the State of Missouri government requirement.					
Behavioral and Social Sciences					
Select 6 hours from at least two specific disciplines.					
ECON 212 or ECON 211	Principles of Microeconomics or Principles of Macroeconomics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3
HIS 105 or HIS 106* or GOG 101 or PHL 101 or PHL 218 or POL 211* or PSY 112 or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy through Film or Intro to Logic or American Government and Politics*or Psychology as a Natural Science 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		40	Group 2 Major Requirements		41
Group 1 Core Requirements		27	Group 1 Core Requirements		26
Total Hours		67	Total Hours*		67
*S&T advisor permission is required to transfer more than 69 credits toward the S&T Nuclear Engineering degree.					

*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

Westminster College		Semester	Missouri S&T		
ENG 106 or ENG 265 or SPE 101	Academic Writing II or Technical and Web Writing or Intro to Speech Communication	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3
CHM 114, 115	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CSA 304	Structured Programming	3	COMP SCI 1500	Computational Problem Solving	3
GEO 108	Intro to 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 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. *At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.					
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.					
ENG 205 or ENG 206 or ENG 238 or ENG 239 or ENG 249 or HIS 103* or HIS 104*	Topics in British Literature to 1800 or British Literature since 1800 or American Literature to the Civil War or American Literature Since the Civil War or World Literature since 1800 or History of the United States to 1877* or History of the United States since 1877* <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* <small>*Satisfies the State of Missouri government requirement.</small>	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
HIS 105 or HIS 106* or GOG 101 or PHL 101 or PHL 218 or POL 211* or PSY 112 or ECN 212 or ECN 211or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy through Film or Intro to Logic or American Government and Politics* or Psychology as a Natural Science or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or 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 <small>*Satisfies the State of Missouri government requirement.</small>	6
Humanities, Arts, and Social Sciences Select 3 hours.					
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives		0
Group 2 Major Requirements		29	Group 2 Major Requirements		29
Group 1 Core Requirements		27	Group 1 Core Requirements		26
Total Hours		56	Total Hours*		55
<small>*S&T advisor permission is required to transfer more than 69 credits toward the S&T Petroleum Engineering degree.</small>					