

General Engineering Transfer Guide

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

Group 1 - Core Requirements: All Majors Take All Courses

Engineering students take all Group 1 - Core Requirements and Group 2 - Major Requirements for major of choice. Math prerequisites: While they are not part of Missouri S&T engineering degree requirements, algebra and trigonometry skills are critical to success in calculus. To prepare for entry into calculus, students should follow math placement testing and advising recommendations at their college.

<u>Central Methodist University</u>			<u>Semester</u>	<u>Missouri S&T</u>			
MA 118	Calculus and Analytic Geometry I	5	MATH 1214	Calculus I	Grade of C or better is required.	4	
MA 209	Calculus and Analytic Geometry II	5	MATH 1215	Calculus II	Grade of C or better is required.	4	
MA 308	Calculus and Analytic Geometry III	5	MATH 2222	Calculus III	Grade of C or better is required.	4	
MA 315	Differential Equations	3	MATH 3304	Elementary Differential Equations		3	
PH 205, 205L	Calculus Physics I and Lab	5	PHYSICS 1135	Engineering Physics I	Grade of C or better is required.	4	
PH 206, 206L	Calculus Physics II and Lab	5	PHYSICS 2135	Engineering Physics II	Grade of C or better is required.	4	
CH 111, 111L	General Chemistry and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab		5	
EN 110	English Composition I	3	ENGLISH 1120	Exposition and Argumentation		3	
EC 202 or	Microeconomics or	3	ECON 1100 or	Principles of Microeconomics or		3	
EC 201	Macroeconomics		ECON 1200	Principles of Macroeconomics			
Total Hours		38				Total Hours	34

Group 2 - Major Requirements: Take All Courses for Major of Choice

Engineering students take all Group 1 - Core Requirements (above) and Group 2 - Major Requirements for chosen major from list below. See course requirements on following pages.

Aerospace Engineering
Architectural Engineering
Ceramic Engineering
Chemical Engineering
Engineering/Biochemistry Emphasis
Civil Engineering
Computer Engineering
Electrical Engineering

Engineering Management
Environmental Engineering
Geological Engineering
Mechanical Engineering
Metallurgical Engineering
Mining Engineering
Nuclear Engineering
Petroleum Engineering

Engineering Major Requirements are detailed on the following pages.

Free Electives: Some programs allow Free Electives as indicated within each major. Free Electives should be selected in consultation with your advisor and may not include remedial/deficiency courses, algebra, trigonometry, pre-calculus, or extra credits in required courses.

Humanities/Social Science (HSS) Electives: HSS electives may include any art, English and technical communication, etymology, foreign language, music, philosophy, speech and media studies, or theatre. Your campus may have additional acceptable options. Consult with your advisor or email transfer@mst.edu with questions. See Missouri S&T online catalog at <https://catalog.mst.edu/undergraduate/degreeprogramsandcourses/> for more information.

Aerospace Engineering Group 2 Major Requirements

<u>Central Methodist University</u>			<u>Semester</u>	<u>Missouri S&T</u>			
HI 117 or HI 118 or HI 102 or PS 101	Development of the United States I or Development of the United States II or World History II or Intro to American Nat, State, and Local Govt	3		HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3	
EN 110 or CT 101 or EN 306	Expository Writing or Public Speaking or Technical Writing	3		ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Principles of Speech or Technical Writing	3	
CS 172	.NET1	3		CS 1971, 1981	Intro to Programming Method and Lab (C++)	3	
MA 318	Matrices and Linear Algebra	3		MATH 3108	Linear Algebra I or (Will satisfy the Advanced Math/Comp Sci elective requirement.)	3	
EN 225	World Literature (or other literature elective)	3		ENGLISH 1231	World Literature I (or other literature elective)	3	
	Ethics Elective	3			Ethics Elective Engineering, business, bio, social or other ethics approved by advisor.	3	
	No free electives applied to the degree.	0			Maximum Free Electives	0	
	Group 2 Major Requirements	18			Group 2 Major Requirements	18	
	Group 1 Core Requirements	38			Group 1 Core Requirements	34	
	Total Hours	56				Total Hours*	52
				*S&T advisor permission is required to transfer more than 68 credits toward the S&T Aerospace Engineering degree.			

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

Architectural Engineering Group 2 Major Requirements

<u>Central Methodist University</u>			<u>Semester</u>	<u>Missouri S&T</u>		
HI 117 (or HI 118 or HI 102)	Development of the United States I (or Development of the United States II or World History II)	3		HISTORY 1200* (or HISTORY 1300 or HISTORY 1310)	Modern Western Civilization* (or American History to 1877 or American History since 1877) <small>*HISTORY 1200 is preferred; 1300 or 1310 will also be accepted.</small>	3
HSS Elective	Humanities/Social Science Elective: history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language	3		HSS Elective	Humanities/Social Science Elective: history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language	3
GL 105	Exploring Geology	3		GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
	<i>No free electives applied to the degree.</i>	0			Maximum Free Electives	0
	Group 2 Major Requirements	9			Group 2 Major Requirements	9
	Group 1 Core Requirements	38			Group 1 Core Requirements	34
	Total Hours	47			Total Hours*	43
				<small>*S&T advisor permission is required to transfer more than 69 credits toward the S&T Architectural Engineering degree.</small>		

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

Ceramic Engineering Group 2 Major Requirements

Central Methodist University			Semester	Missouri S&T		
HI 117 or HI 118 or HI 102 or PS 101	Development of the United States I or Development of the United States II or World History II or Intro to American Nat, State, and Local Govt	3		HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
CH 341	Organic Chemistry	3		CHEM 2210	Organic Chemistry I (Will satisfy the advanced chemistry elective requirement.)	3
CH 114	General Chemistry II	3		CHEM 1320	General Chemistry II	3
PH 307	Modern Physics	3		PHYS 2305	Intro to Modern Physics	3
EN 305 or CT 101 or HSS elective	Expository Writing or Public Speaking or Humanities/Social Science Elective: history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language	3		ENGLISH 1160 or SPMS 1185 or HSS Elective	Writing and Research or Public Speaking or Humanities/Social Science Elective: history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language	3
	Humanities/Social Science Elective	3			Humanities/Social Science Elective	3
	No free electives applied to the degree.	0			Maximum Free Electives	0
	Group 2 Major Requirements	18			Group 2 Major Requirements	18
	Group 1 Core Requirements	38			Group 1 Core Requirements	34
	Total Hours	56			Total Hours*	52
				*S&T advisor permission is required to transfer more than 68 credits toward the S&T Ceramic Engineering degree.		

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

Chemical Engineering Group 2 Major Requirements

Central Methodist University			Semester	Missouri S&T		
EN 306	Technical Writing	3		ENGLISH 3560	Technical Writing	3
HI 117 or	Development of the United States I or			HISTORY 1200 or	Modern Western Civilization or	
HI 118 or	Development of the United States II or	3		HISTORY 1300 or	American History to 1877 or	3
HI 102 or	World History II or			HISTORY 1310 or	American History since 1877 or	
PS 101	Intro to American Nat, State, and Local Govt			POL SCI 1200	American Government	
CH 114	General Chemistry II	3		CHEM 1320	General Chemistry II	3
CH 341, 341L	Organic Chemistry and Lab	4		CHEM 2210, 2219*	Organic Chemistry I and Lab* *The lab is not required for the degree, will transfer as 1 of the 9 science elective credits (below) .	4
CH 342 or	Organic Chemistry II (3) or				Organic Chemistry II (3) or	
BI 305	Microbiology with Lab (4) (Will satisfy science elective requirement. Select up to 9 hours from these options.)	7		CHEM 2220 or	Microbiology and Lab (5) or	8
				BIO SCI 3313, 3319	(Will satisfy science elective requirement. Select up to 9 hours from these options or CHEM 2219 Organic Chemistry Lab.)	
CS 378 or	Data Structures & Algorithms or			CS 1500 or	Computational Problem Solving (3) or	
CS 172	.NET1	3		CS 1971,1981*	Intro to Programming Methodology and Lab* (C++)	3
					*Course will be substituted for CS 1500	
CT 101	Public Speaking	3		SP&MS 1185	Principles of Speech	3
	Humanities/Social Science Elective	3			Humanities/Social Science Elective	3
	No free electives applied to the degree.	0			Maximum Free Electives	0
	Group 2 Major Requirements	29			Group 2 Major Requirements	30
	Group 1 Core Requirements	38			Group 1 Core Requirements	34
	Total Hours	67			Total Hours*	64
				*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.

Chemical Engineering - Biochemical Engineering Emphasis Group 2 Major Requirements

Central Methodist University			Semester	Missouri S&T		
EN 306	Technical Writing	3	ENGLISH 3560	Technical Writing	3	
HI 117 or	Development of the United States I or	3	HISTORY 1200 or	Modern Western Civilization or	3	
HI 118 or	Development of the United States II or		HISTORY 1300 or	American History to 1877 or		
HI 102 or	World History II or		HISTORY 1310 or	American History since 1877 or		
PS 101	Intro to American Nat, State, and Local Govt		POL SCI 1200	American Government		
CH 114	General Chemistry II	4	CHEM 1320	General Chemistry II	3	
CH 341,341L	Organic Chemistry and Lab	4	CHEM 2210, 2219*	Organic Chemistry I and Lab* *The lab is not required for the degree, will transfer as 1 of the 9 science elective credits (below) .	4	
CH 342 or	Organic Chemistry II (3) or	7	CHEM 2220 or	Organic Chemistry II (3) or	8	
BI 305	Microbiology with Lab (4) (Will satisfy science elective requirement. Select up to 9 hours from these options.)		BIO SCI 3313, 3319	Microbiology and Lab (5) or (Will satisfy science elective requirement. Select up to 9 hours from these options or CHEM 2219 Organic Chemistry Lab.)		
CS 378 or	Data Structures & Algorithms or		CS 1500 or	Computational Problem Solving (3) or		
CS 172	.NET1	3	CS 1971,1981*	Intro to Programming Methodology and Lab* (C++)	3	
				*Course will be substituted for CS 1500.		
CT 101	Public Speaking	3	SP&MS 1185	Principles of Speech	3	
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3	
	No free electives applied to the degree.	0		Maximum Free Electives	0	
	Group 2 Major Requirements	30		Group 2 Major Requirements	30	
	Group 1 Core Requirements	38		Group 1 Core Requirements	34	
	Total Hours	68		Total Hours*	64	
*S&T advisor permission is required to transfer more than 70 credits toward the S&T Chemical/Biochemical Engineering degree.						

*S&T advisor permission is required to transfer more than 70 credits toward the S&T Chemical/Biochemical Engineering degree.

Civil Engineering Group 2 Major Requirements

Central Methodist University			Semester	Missouri S&T		
EN 110 or CT 101 or EN 306	Expository Writing or Public Speaking or Technical Writing	3		ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Public Speaking or Technical Writing	3
HI 117 or HI 118 or HI 102 or PS 101	Development of the United States I or Development of the United States II or World History II or Intro to American Nat, State, and Local Govt	3		HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
GL 105	Exploring Geology	3		GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
	Humanities/Social Science Elective	3			Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>	0			Maximum Free Electives	0
	Group 2 Major Requirements	12			Group 2 Major Requirements	12
	Group 1 Core Requirements	38			Group 1 Core Requirements	34
	Total Hours	50			Total Hours*	46
				*S&T advisor permission is required to transfer more than 69 credits toward the S&T Civil Engineering degree.		

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

Computer Engineering Group 2 Major Requirements

<u>Central Methodist University</u>			<u>Semester</u>	<u>Missouri S&T</u>		
CT 101	Public Speaking	3	SPMS 1185	Public Speaking	3	
EN 110 or EN 306	Expository Writing or Technical Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3	
HI 117 or HI 118 or HI 102 or PS 101	Development of the United States I or Development of the United States II or World History II or Intro to American Nat, State, and Local Govt	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3	
MA 107	Discrete Math	3	CS 1200	Discrete Math for Computer Science	3	
CS 378	Data Structures and Algorithms	3	CS 1500	Computational Problem Solving	3	
PH 307 or CH 341	Modern Physics or Organic Chemistry	3	PHYSICS 2305 or CHEM 2210	Intro to Modern Physics or Organic Chemistry I	3	
				Satisfies a required engineering/science elective.		
MA 318	Matrices and Linear Algebra	3	MATH 3108	Linear Algebra (Will satisfy a required math elective.)	3	
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3	
	Maximum Free Electives	3		Maximum Free Electives	3	
	Group 2 Major Requirements	27		Group 2 Major Requirements	27	
	Group 1 Core Requirements	38		Group 1 Core Requirements	34	
	Total Hours	65			Total Hours*	61
			*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

<u>Central Methodist University</u>			<u>Semester</u>	<u>Missouri S&T</u>		
CT 101	Public Speaking	3		SPMS 1185	Public Speaking	3
EN 110 or	Expository Writing or	3		ENGLISH 1160 or	Writing and Research or	3
EN 306	Technical Writing			ENGLISH 3560	Technical Writing	
HI 117 or	Development of the United States I or	3		HISTORY 1200 or	Modern Western Civilization or	3
HI 118 or	Development of the United States II or			HISTORY 1300 or	American History to 1877 or	
HI 102 or	World History II or			HISTORY 1310 or	American History since 1877 or	
PS 101	Intro to American Nat, State, and Local Govt			POL SCI 1200	American Government	
CS 378	Data Structures & Algorithms	3		CS 1500	Computational Problem Solving	3
PH 307 or	Modern Physics or	3		PHYSICS 2305 or	Intro to Modern Physics or	3
CH 114	Organic Chemistry			CHEM 2210	Organic Chemistry I	
MA 318	Matrices and Linear Algebra	3		MATH 3108	Linear Algebra	3
	Humanities/Social Science Elective	3			Humanities/Social Science Elective	3
	Maximum Free Electives	3			Maximum Free Electives	3
	Group 2 Major Requirements	24			Group 2 Major Requirements	24
	Group 1 Core Requirements	38			Group 1 Core Requirements	34
	Total Hours	62			Total Hours*	58
*S&T advisor permission is required to transfer more than 68 credits toward the S&T Electrical Engineering degree.						

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

Engineering Management Group 2 Major Requirements

<u>Central Methodist University</u>			<u>Semester</u>	<u>Missouri S&T</u>		
PY 101	General Psychology	3		PSYCH 1101	General Psychology	3
HI 117 or	Development of the United States I or			HISTORY 1200 or	Modern Western Civilization or	
HI 118 or	Development of the United States II or	3		HISTORY 1300 or	American History to 1877 or	3
HI 102 or	World History II or			HISTORY 1310 or	American History since 1877 or	
PS 101	Intro to American Nat, State, and Local Govt			POL SCI 1200	American Government	
CT 101	Public Speaking			SPMS 1185	Principles of Speech	3
EN 110 or	Expository Writing or	3		ENGLISH 1160 or	Writing and Research or	3
EN 306	Technical Writing			ENGLISH 3560	Technical Writing	
CS 172	.NET1	3		CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
	Humanities/Social Science Elective	3			Humanities/Social Science Elective	3
	Maximum Free Electives	3			Maximum Free Electives	3
	Group 2 Major Requirements	18			Group 2 Major Requirements	21
	Group 1 Core Requirements	38			Group 1 Core Requirements	34
	Total Hours	56			Total Hours*	55
				*S&T advisor permission is required to transfer more than 68 credits toward the S&T Engineering Management degree.		

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

Environmental Engineering Group 2 Major Requirements

<u>Central Methodist University</u>			<u>Semester</u>	<u>Missouri S&T</u>		
EN 110 or CT 101 or EN 306	Expository Writing or Public Speaking or Technical Writing	3		ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Public Speaking or Technical Writing	3
HI 117 or HI 118 or HI 102	Development of the United States I or Development of the United States II or World History II	3		HISTORY 1200 or HISTORY 1300 or HISTORY 1310	Modern Western Civilization or American History to 1877 or American History since 1877	3
GL 105	Exploring Geology	3		GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
CH 114	General Chemistry II	4		CHEM 1320	General Chemistry II	3
BI 101	General Biology	4		BIO SCI 1113	General Biology	4
	Humanities/Social Science Elective	3			Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>	0			Maximum Free Electives	0
	Group 2 Major Requirements	20			Group 2 Major Requirements	19
	Group 1 Core Requirements	38			Group 1 Core Requirements	34
	Total Hours	58			Total Hours*	53
				*S&T advisor permission is required to transfer more than 69 credits toward the S&T Environmental Engineering degree.		

*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

<u>Central Methodist University</u>			<u>Semester</u>	<u>Missouri S&T</u>		
EN 306	Technical Writing	3		ENGLISH 3560	Technical Writing	3
HI 117 or	Development of the United States I or			HISTORY 1200 or	Modern Western Civilization or	
HI 118 or	Development of the United States II or			HISTORY 1300 or	American History to 1877 or	
HI 102 or	World History II or	3		HISTORY 1310 or	American History since 1877 or	3
PS 101	Intro to American Nat, State, and Local Govt			POL SCI 1200	American Government	
GL 105	Exploring Geology	3		GEO ENG 1150 (GEOLOGY 1110)	Physical and Environmental Geology	3
BI 101 or	General Biology or			BIO SCI 1113 or	General Biology or	
CH 114 or	Chemistry II or	4		CHEM 1320 or	General Chemistry II or	
CH 341	Organic Chemistry			CHEM 2210	Organic Chemistry I	3
					or any 3-hour course in chemistry, geochemistry, or biology. Satisfies chemistry/geochemistry elective requirement.	
	Humanities/Social Science Elective	3			Humanities/Social Science Elective	3
	Humanities/Social Science Elective	3			Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>	0			Maximum Free Electives	0
	Group 2 Major Requirements	19			Group 2 Major Requirements	18
	Group 1 Core Requirements	38			Group 1 Core Requirements	34
	Total Hours	57			Total Hours*	52
				*S&T advisor permission is required to transfer more than 68 credits toward the S&T Geological Engineering degree.		

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

Mechanical Engineering Group 2 Major Requirements

Central Methodist University			Semester	Missouri S&T		
HI 117 or HI 118 or HI 102 or PS 101	Development of the United States I or Development of the United States II or World History II or Intro to American Nat, State, and Local Govt	3		HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
EN 110 or CT 101 or EN 306	Expository Writing or Public Speaking or Technical Writing	3		ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Principles of Speech or Technical Writing	3
CS 172	.NET1	3		CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
MA 318	Matrices and Linear Algebra	3		MATH 3108	Linear Algebra I (Will satisfy the Advanced Math/Computer Science elective requirement.)	3
EN 225	World Literature (or other literature elective)	3		ENGLISH 1231	World Literature I (or other literature elective)	3
	Humanities/Social Science Elective	3			Humanities/Social Science Elective	3
	No free electives applied to the degree.	0			Maximum Free Electives	0
	Group 2 Major Requirements	18			Group 2 Major Requirements	18
	Group 1 Core Requirements	38			Group 1 Core Requirements	34
	Total Hours	56			Total Hours*	52
*S&T advisor permission is required to transfer more than 68 credits toward the S&T Mechanical Engineering degree.						

*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

Central Methodist University			Semester	Missouri S&T		
EN 110 or CT 101 or EN 306	Expository Writing or Public Speaking or Technical Writing	3		ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Public Speaking or Technical Writing	3
HI 117 or HI 118 or HI 102 or PS 101	Development of the United States I or Development of the United States II or World History II or Intro to American Nat, State, and Local Govt	3		HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
CH 114	General Chemistry II	4		CHEM 1320	General Chemistry II	3
CH 341 or PH 307	Organic Chemistry or Modern Physics	3		CHEM 2210 or PHYSICS 2305	Organic Chemistry I (4) or Intro to Modern Physics I (3) <small>Not specifically required for the degree but will satisfy Out-of-Department Technical Elective Requirement.</small>	3
	Humanities/Social Science Elective	3			Humanities/Social Science Elective	3
	Humanities/Social Science Elective	3			Humanities/Social Science Elective	3
	Maximum Free Electives	5			Maximum Free Electives	3
	Group 2 Major Requirements	24			Group 2 Major Requirements	21
	Group 1 Core Requirements	38			Group 1 Core Requirements	34
	Total Hours	62			Total Hours*	55
*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>Central Methodist University</u>			<u>Semester</u>	<u>Missouri S&T</u>		
EN 110 or EN 306	Expository Writing or Technical Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3	
HI 117 or HI 118 or HI 102 or PS 101	Development of the United States I or Development of the United States II or World History II or Intro to American Nat, State, and Local Govt	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3	
GL 105	Exploring Geology	3	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3	
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3	
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3	
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0	
	Group 2 Major Requirements	15		Group 2 Major Requirements	15	
	Group 1 Core Requirements	38		Group 1 Core Requirements	34	
	Total Hours	53		Total Hours*	49	
			*S&T advisor permission is required to transfer more than 68 credits toward the S&T Mining Engineering degree.			

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

Nuclear Engineering Group 2 Major Requirements

<u>Central Methodist University</u>			<u>Semester</u>	<u>Missouri S&T</u>		
EN 110 or EN 306	Expository Writing or Technical Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or PTechnical Writing	3	
HI 117 or HI 118 or HI 102 or PS 101	Development of the United States I or Development of the United States II or World History II or Intro to American Nat, State, and Local Govt	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3	
CS 172	.NET1	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3	
MA 318	Matrices and Linear Algebra	3	MATH 3108	Linear Algebra	3	
PH 307	Modern Physics	3	PHYSICS 2305	Intro to Modern Physics	3	
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3	
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3	
	Maximum Free Electives	6		Maximum Free Electives	6	
	Group 2 Major Requirements	27		Group 2 Major Requirements	27	
	Group 1 Core Requirements	38		Group 1 Core Requirements	34	
	Total Hours	65		Total Hours*	61	
*S&T advisor permission is required to transfer more than 68 credits toward the S&T Nuclear Engineering degree.						

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

Petroleum Engineering Group 2 Major Requirements

<u>Central Methodist University</u>			<u>Semester</u>	<u>Missouri S&T</u>		
EN 110 or EN 306	Expository Writing or Technical Writing	3	ENGLISH 3560 or ENGLISH 1160	Technical Writing (preferred) or Writing and Research	3	
HI 117 or HI 118 or HI 102 or PS 101	Development of the United States I or Development of the United States II or World History II or Intro to American Nat, State, and Local Govt	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3	
GL 105	Exploring Geology	3	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3	
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3	
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3	
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0	
	Group 2 Major Requirements	15		Group 2 Major Requirements	15	
	Group 1 Core Requirements	38		Group 1 Core Requirements	34	
	Total Hours	53			Total Hours*	49
				*S&T advisor permission is required to transfer more than 69 credits toward the S&T Petroleum Engineering degree.		

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