

Cotley College — Missouri S&T

General Engineering

Transfer Guide Effective as of Fall 2024

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>Cotley College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
MAT 210	Calculus I	4	MATH 1214	Calculus I <small>Grade of C or better is required.</small>	4
MAT 220	Calculus II	4	MATH 1215	Calculus II <small>Grade of C or better is required.</small>	4
MAT 230	Calculus III	4	MATH 2222	Calculus III <small>Grade of C or better is required.</small>	4
MAT 240	Differential Equations	3	MATH 3304	Elementary Differential Equations	3
PHY 205	General Physics I and Lab	4	PHYSICS 1135	Engineering Physics I <small>Grade of C or better is required.</small>	4
PHY 206	General Physics II and Lab	4	PHYSICS 2135	Engineering Physics II <small>Grade of C or better is required.</small>	4
CHE 210, 211	General Chemistry 1 and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5
FWS 101	First-Year Writing Seminar	3	ENGLISH 1120	Exposition and Argumentation	3
ECO 202 or ECO 201	Principles of Economics II: Microeconomics or Economics I: Macroeconomics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3
Total Hours		33	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
Biomedical Engineering/Biomufacturing 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.

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>Cottey College</u>		<u>Semester</u>	<u>Missouri S&T</u>	
HIS 111 or HIS 112 or HIS 102 or POL 101	US History to 1877 or US History Since 1877 or History of Western Civilization Since 1500 or United States Government	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
WRI 102 or SPE 101 or WRI 292	College Writing or Fundamentals of Speech or Professional Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Principles of Speech or Technical Writing
Literature	Literature Elective	3	Literature	Literature Elective
Ethics	Ethics Elective Engineering, business, bio, social or other ethics approved by advisor.	3	Ethics	Ethics Elective Engineering, business, bio, social or other ethics approved by advisor.
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives	
Group 2 Major Requirements		12	Group 2 Major Requirements	
Group 1 Core Requirements		33	Group 1 Core Requirements	
Total Hours		45	Total Hours*	
			46	

*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>Cottey College</u>		<u>Semester</u>	<u>Missouri S&T</u>	
HIS 102 (or HIS 111 or HIS 112)	History of Western Civilization Since 1500 (or US History to 1877 or US History Since 1877)	3	HISTORY 1200* (or HISTORY 1300 or HISTORY 1310)	Modern Western Civilization* (or American History to 1877 or American History since 1877)
Humanities or Social Science or Communication	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language or one communication course from this list: WRI 102, SPE 101, WRI 292.	3	Humanities or Social Science or Communication	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language or one communication course from this list: ENGLISH 1160, 1600, 3560 or SPMS 1185.
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives	
Group 2 Major Requirements		6	Group 2 Major Requirements	
Group 1 Core Requirements		33	Group 1 Core Requirements	
Total Hours		39	Total Hours*	
			40	

*HISTORY 1200 is preferred; 1300 or 1310 will also be accepted.
*S&T advisor permission is required to transfer more than 69 credits toward the S&T Architectural Engineering degree.

Biomedical Engineering-Biomanufacturing Group 2 Major Requirements

<u>Cottey College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
SPE 101	Fundamentals of Speech	3	SP&MS 1185	Principles of Speech	3
WRI 292	Professional Writing	3	ENGLISH 3560	Technical Writing	3
HIS 111 or HIS 112 or HIS 102 or POL 101	US History to 1877 or US History Since 1877 or History of Western Civilization Since 1500 or United States Government	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
CHE 212, 213	General Chemistry II (3) and Lab (1)	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not an S&T degree requirement. Will transfer as general credit.</small>	3
BIO 101	Introductory Biology with Lab (4)	4	BIO SCI 1113, 1219	General Biology and Lab <small>Applies to degree as Track Elective.</small>	4
BIO 211 and BIO 212	Human Anatomy and Physiology 1 (4) and Human Anatomy and Physiology 2 (4) <small>Both courses are required to receive full transfer credit.</small>	8	BIO SCI 3333, 3339 and BIO SCI 3343*, 3349*	Anatomy and Physiology I and Lab and Anatomy and Physiology II* and Lab* <small>The combination of Cottey BIO 211 and 212 is equivalent to the combination of S&T BIO SCI 3333, 3339, 3343, and 3349. *BIO SCI 3343, 3349 is not an S&T degree requirement, will transfer as general elective credit.</small>	4
CSC 212	Data Structures	3	CS 1500	Computational Problem Solving	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	31		Group 2 Major Requirements	26
	Group 1 Core Requirements	33		Group 1 Core Requirements	34
	Total Hours	64		Total Hours*	60

*S&T advisor permission is required to transfer more than 68 credit hours toward the degree.

Biomedical Engineering-Biomaterials Group 2 Major Requirements

<u>Cottey College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
SPE 101	Fundamentals of Speech	3	SP&MS 1185	Principles of Speech	3
WRI 292	Professional Writing	3	ENGLISH 3560	Technical Writing	3
HIS 111 or HIS 112 or HIS 102 or POL 101	US History to 1877 or US History Since 1877 or History of Western Civilization Since 1500 or United States Government	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
CHE 212, 213	General Chemistry II (3) and Lab (1)	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not an S&T degree requirement. Will transfer as general credit.</small>	3
BIO 101	Introductory Biology with Lab (4)	4	BIO SCI 1113*, 1219*	General General Biology* and Lab* <small>*Applies to degree as Track Elective (Non-engineering).</small>	4
BIO 211 and BIO 212	Human Anatomy and Physiology 1 (4) and Human Anatomy and Physiology 2 (4) <small>Both courses are required to receive full transfer credit.</small>	8	BIO SCI 3333, 3339 and BIO SCI 3343*, 3349*	Anatomy and Physiology I and Lab and Anatomy and Physiology II* and Lab* <small>The combination of Cottey BIO 211 and 212 is equivalent to the combination of S&T BIO SCI 3333, 3339, 3343, and 3349. *BIO SCI 3343, 3349 is not an S&T degree requirement, will transfer as general elective credit.</small>	4
CSC 212	Data Structures	3	CS 1500	Computational Problem Solving	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	28		Group 2 Major Requirements	23
	Group 1 Core Requirements	33		Group 1 Core Requirements	34
	Total Hours	61		Total Hours*	57

*S&T advisor permission is required to transfer more than 65 credits toward the S&T Biomedical Engineering degree.

Ceramic Engineering Group 2 Major Requirements

<u>Cotley College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
HIS 111 or HIS 112 or HIS 102 or POL 101	US History to 1877 or US History Since 1877 or History of Western Civilization Since 1500 or United States Government	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
CHE 212	General Chemistry 2	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not an S&T degree requirement. Will transfer as general credit.</small>	3
WRI 102 or SPE 101 or HSS Elective	College Writing or Fundamentals of Speech or Any 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 Principles of Speech or Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	16		Group 2 Major Requirements	15
	Group 1 Core Requirements	33		Group 1 Core Requirements	34
	Total Hours	49		Total Hours*	49

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

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

<u>Cotley College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
SPE 101	Fundamentals of Speech	3	SP&MS 1185	Principles of Speech	3
WRI 292	Professional Writing	3	ENGLISH 3560	Technical Writing	3
HIS 111 or HIS 112 or HIS 102 or POL 101	US History to 1877 or US History Since 1877 or History of Western Civilization Since 1500 or United States Government	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
CHE 212, 213	General Chemistry II (3) and Lab (1)	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not an S&T degree requirement. Will transfer as general credit.</small>	3
CSC 212	Data Structures	3	CS 1500	Computational Problem Solving	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	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	33		Group 1 Core Requirements	34
	Total Hours	52		Total Hours*	52

*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

<u>Cotley College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
WRI 102 or SPE 101 or WRI 292	College Writing or Fundamentals of Speech or Professional Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Principles of Speech or Technical Writing	3
HIS 111 or HIS 112 or HIS 102 or POL 101	US History to 1877 or US History Since 1877 or History of Western Civilization Since 1500 or United States Government	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
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	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	33		Group 1 Core Requirements	34
	Total Hours	42		Total Hours*	43

*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>Cottey College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
SPE 101	Fundamentals of Speech	3	SPMS 1185	Principles of Speech	3
WRI 102 or WRI 292	College Writing or Professional Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
HIS 111 or HIS 112 or HIS 102 or POL 101	US History to 1877 or US History Since 1877 or History of Western Civilization Since 1500 or United States Government	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
CSC 212	Data Structures	3	CS 1500	Computational Problem Solving	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Electives	Maximum Free Electives	3	Electives	Maximum Free Electives	3
	Group 2 Major Requirements	18		Group 2 Major Requirements	18
	Group 1 Core Requirements	33		Group 1 Core Requirements	34
	Total Hours	51		Total Hours*	52

*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>Cottey College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
SPE 101	Fundamentals of Speech	3	SPMS 1185	Principles of Speech	3
WRI 102 or WRI 292	College Writing or Professional Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
HIS 111 or HIS 112 or HIS 102 or POL 101	US History to 1877 or US History Since 1877 or History of Western Civilization Since 1500 or United States Government	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
CSC 212	Data Structures	3	CS 1500	Computational Problem Solving	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Electives	Maximum Free Electives	3	Electives	Maximum Free Electives	3
	Group 2 Major Requirements	18		Group 2 Major Requirements	18
	Group 1 Core Requirements	33		Group 1 Core Requirements	34
	Total Hours	51		Total Hours*	52

*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>Cottey College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
PSY 101	General Psychology	3	PSYCH 1101	General Psychology	3
HIS 111 or HIS 112 or HIS 102 or POL 101	US History to 1877 or US History Since 1877 or History of Western Civilization Since 1500 or United States Government	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
SPE 101	Fundamentals of Speech	3	SPMS 1185	Principles of Speech	3
WRI 102 or WRI 292	College Writing or Professional Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	3	Electives	Maximum Free Electives	0
	Group 2 Major Requirements	18		Group 2 Major Requirements	15
	Group 1 Core Requirements	33		Group 1 Core Requirements	34
	Total Hours	51		Total Hours*	61

*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>Cottey College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
WRI 102 or SPE 101 or WRI 292	College Writing or Fundamentals of Speech or Professional Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Principles of Speech or Technical Writing	3
HIS 111 or HIS 112 or HIS 102	US History to 1877 or US History Since 1877 or History of Western Civilization Since 1500	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310	Modern Western Civilization or American History to 1877 or American History since 1877	3
CHE 212	General Chemistry 2	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not an S&T degree requirement. Will transfer as general credit.</small>	3
BIO 101	Introductory Biology and Lab	4	BIO SCI 1113, 1219*	General Biology (3) and Lab* (1) <small>BIO SCI 1219 is not an S&T degree requirement, will transfer as general elective credit.</small>	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	17		Group 2 Major Requirements	15
	Group 1 Core Requirements	33		Group 1 Core Requirements	34
	Total Hours	50		Total Hours*	49

*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>Cotley College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
WRI 292	Professional Writing	3	ENGLISH 3560	Technical Writing	3
HIS 111 or HIS 112 or HIS 102 or POL 101	US History to 1877 or US History Since 1877 or History of Western Civilization Since 1500 or United States Government	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
CSC 212	Data Structures	3	CS 1500	Computational Problem Solving	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	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	33		Group 1 Core Requirements	34
	Total Hours	48		Total Hours*	49

*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

<u>Cotley College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
HIS 111 or HIS 112 or HIS 102 or POL 101	US History to 1877 or US History Since 1877 or History of Western Civilization Since 1500 or United States Government	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
WRI 102 or SPE 101 or WRI 292	College Writing or Fundamentals of Speech or Professional Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Principles of Speech or Technical Writing	3
Literature	Literature Elective	3	Literature	Literature Elective	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	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	33		Group 1 Core Requirements	34
	Total Hours	45		Total Hours*	46

*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

<u>Cotley College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
WRI 102 or SPE 101 or WRI 292	College Writing or Fundamentals of Speech or Professional Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Principles of Speech or Technical Writing	3
HIS 111 or HIS 112 or HIS 102 or POL 101	US History to 1877 or US History Since 1877 or History of Western Civilization Since 1500 or United States Government	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
CHE 212	General Chemistry 2	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not an S&T degree requirement. Will transfer as general credit.</small>	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Electives	Maximum Free Electives	3	Electives	Maximum Free Electives	3
	Group 2 Major Requirements	19		Group 2 Major Requirements	18
	Group 1 Core Requirements	33		Group 1 Core Requirements	34
	Total Hours	52		Total Hours*	52

*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>Cottey College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
WRI 102 or WRI 292	College Writing or Professional Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
HIS 111 or HIS 112 or HIS 102 or POL 101	US History to 1877 or US History Since 1877 or History of Western Civilization Since 1500 or United States Government	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
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	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	33		Group 1 Core Requirements	34
	Total Hours	45		Total Hours*	46

*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>Cottey College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
WRI 102 or SPE 101 or WRI 292	College Writing or Fundamentals of Speech or Professional Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Principles of Speech or Technical Writing	3
HIS 111 or HIS 112 or HIS 102 or POL 101	US History to 1877 or US History Since 1877 or History of Western Civilization Since 1500 or United States Government	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
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Electives	Maximum Free Electives	6	Electives	Maximum Free Electives	6
	Group 2 Major Requirements	18		Group 2 Major Requirements	18
	Group 1 Core Requirements	33		Group 1 Core Requirements	34
	Total Hours	51		Total Hours*	52

*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>Cottey College</u>		<u>Semester</u>	<u>Missouri S&T</u>		
WRI 102 or WRI 292	College Writing or Professional Writing	3	ENGLISH 3560 or ENGLISH 1160	Technical Writing (preferred) or Writing and Research	3
HIS 111 or HIS 112 or HIS 102 or POL 101	US History to 1877 or US History Since 1877 or History of Western Civilization Since 1500 or United States Government	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
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	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	33		Group 1 Core Requirements	34
	Total Hours	45		Total Hours*	46

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