

# MSU-West Plains — Missouri S&T

## General Engineering Transfer Guide

Effective as of Fall 2020

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>MSU-West Plains</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
MTH 261	Analytic Geometry and Calculus I	5	MATH 1214	Calculus for Engineers I	Grade of C or better is required. 4
MTH 280	Analytic Geometry and Calculus II	5	MATH 1215	Calculus for Engineers II	Grade of C or better is required. 4
MTH 292	Multivariate Calculus	3	MATH 2222	Calculus with Analytic Geometry III	Grade of C or better is required. 4
PHY 203	Foundations of Physics I	5	PHYSICS 1135	Engineering Physics I	Grade of C or better is required. 4
PHY 204	Foundations of Physics II	5	PHYSICS 2135	Engineering Physics II	Grade of C or better is required. 4
CHM 160, 161	General Chemistry I and lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
EGR 100	Careers in Engineering and Technology	3	FR ENG 1100	Study and Careers in Engineering and Computing	1
ENG 110	Writing I	3	ENGLISH 1120	Exposition and Argumentation	3
ECO 165 or ECO 155	Principles of Microeconomics or Principles of Macroeconomics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3
Total Hours		37	Total Hours		32

### 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**  
**Chemical 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 history, economics, political science, sociology, psychology, philosophy, fine art, literature, or foreign language. Missouri S&T approved HSS courses are listed at [ugs.mst.edu](http://ugs.mst.edu). Your campus may have additional acceptable options. Consult with your advisor or email [transfer@mst.edu](mailto:transfer@mst.edu) with questions.

## Aerospace Engineering Group 2 Major Requirements

<u>MSU-West Plains</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Engineering Design with Computer Appl	3
HST 121 or HST 122 or HST 104 or PLS 101	Survey of US History to 1877 or Survey of History since 1877 or World History since 1600 C.E. or American Democracy and Citizenship	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
ENG 210 or COM 115 or ENG 221	Writing II: Academic Writing or Fundamentals of Public Speaking or Writing II: Writing for the Professions	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Principles of Speech or Technical Writing	3
CSC 125	Intro to C++ Programming	4	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
	Literature Elective	3		Literature Elective	3
	See your advisor for course options.	3		Ethics Elective	3
	No free electives applied to the degree.	0		Maximum Free Electives	0
	Group 2 Major Requirements	19		Group 2 Major Requirements	18
	Group 1 Core Requirements	37		Group 1 Core Requirements	32
	Total Hours	56		Total Hours*	50

\*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>MSU-West Plains</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Engineering Design with Computer Appl	3
HST 121 (of HST 122 or HST 104)	Survey of US History to 1877 (or Survey of History since 1877 or World History since 1600 C.E.)	3	HISTORY 1200* (or HISTORY 1300 or HISTORY 1310)	Modern Western Civilization* (or American History to 1877 or American History since 1877)	3
ENG 210 or COM 115 or HSS Elective	Writing II: Academic Writing or Fundamentals of 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
GLG 110	Principles of Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
	No free electives applied to the degree.	0		Maximum Free Electives	0
	Group 2 Major Requirements	13		Group 2 Major Requirements	12
	Group 1 Core Requirements	37		Group 1 Core Requirements	32
	Total Hours	50		Total Hours*	44

\*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.

## Ceramic Engineering Group 2 Major Requirements

<u>MSU-West Plains</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Engineering Design with Computer Appl	3
HST 121 or HST 122 or HST 104 or PLS 101	Survey of US History to 1877 or Survey of History since 1877 or World History since 1600 C.E. or American Democracy and Citizenship	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
CHM 170	General Chemistry II	3	CHEM 1320	General Chemistry II	3
ENG 210 or COM 115 or HSS Elective	Writing II: Academic Writing or Fundamentals of 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
	<i>See your advisor for course options.</i>	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	37		Group 1 Core Requirements	32
	Total Hours	52		Total Hours*	47

\*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

<u>MSU-West Plains</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENG 210 or ENG 221	Writing II: Academic Writing or Writing II: Writing for the Professions	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
HST 121 or HST 122 or HST 104 or PLS 101	Survey of US History to 1877 or Survey of History since 1877 or World History since 1600 C.E. or American Democracy and Citizenship	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
CHM 170	General Chemistry II	3	CHEM 1320	General Chemistry II	3
CSC 125 or CSC 131 or CSC 232	Intro to C++ Programming or Computational Thinking or Data Structures	4	CS 1971, 1981 or CS 1500	Intro to Programming Method and Lab (C++) or Computational Problem Solving	3
COM 115	Fundamentals of Public Speaking	3	SP&MS 1185	Principles of Speech	3
	<i>See your advisor for course options.</i>	3		Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	22		Group 2 Major Requirements	21
	Group 1 Core Requirements	37		Group 1 Core Requirements	32
	Total Hours	59		Total Hours*	53

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

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

<u>MSU-West Plains</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENG 210 or ENG 221	Writing II: Academic Writing or Writing II: Writing for the Professions	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
HST 121 or HST 122 or HST 104 or PLS 101	Survey of US History to 1877 or Survey of History since 1877 or World History since 1600 C.E. or American Democracy and Citizenship	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
CHM 170	General Chemistry II	3	CHEM 1320	General Chemistry II	3
CSC 125 or CSC 131 or CSC 232	Intro to C++ Programming or Computational Thinking or Data Structures	4	CS 1971, 1981 or CS 1500	Intro to Programming Method and Lab (C++) or Computational Problem Solving	3
COM 115	Fundamentals of Public Speaking	3	SP&MS 1185	Principles of Speech	3
	<i>See your advisor for course options.</i>	3		Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	22		Group 2 Major Requirements	21
	Group 1 Core Requirements	37		Group 1 Core Requirements	32
	Total Hours	59		Total Hours*	53

\*S&T advisor permission is required to transfer more than 71 credits toward the S&T Chemical/Biochemical Engineering degree.

## Civil Engineering Group 2 Major Requirements

<u>MSU-West Plains</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENG 210 or COM 115 or ENG 221	Writing II: Academic Writing or Fundamentals of Public Speaking or Writing II: Writing for the Professions	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Public Speaking or Technical Writing	3
HST 121 or HST 122 or HST 104 or PLS 101	Survey of US History to 1877 or Survey of History since 1877 or World History since 1600 C.E. or American Democracy and Citizenship	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
GLG 110	Principles of Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
	<i>See your advisor for course options.</i>	3		Humanities/Social Science Elective	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	37		Group 1 Core Requirements	32
	Total Hours	53		Total Hours*	47

\*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>MSU-West Plains</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
COM 115	Fundamentals of Public Speaking	3	SPMS 1185	Public Speaking	3
ENG 210 or ENG 221	Writing II: Academic Writing or Writing II: Writing for the Professions	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
HST 121 or HST 122 or HST 104 or PLS 101	Survey of US History to 1877 or Survey of History since 1877 or World History since 1600 C.E. or American Democracy and Citizenship	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
CSC 125 or CSC 131 or CSC 232	Intro to C++ Programming or Computational Thinking or Data Structures	4	CS 1971, 1981 or CS 1500	Intro to Programming Method and Lab (C++) or Computational Problem Solving	3
	<i>See your advisor for course options.</i>	3		Humanities/Social Science Elective	3
	<i>See your advisor for course options.</i>	3		Maximum Free Electives	3
	Group 2 Major Requirements	19		Group 2 Major Requirements	18
	Group 1 Core Requirements	37		Group 1 Core Requirements	32
	Total Hours	56		Total Hours*	50

\*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>MSU-West Plains</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Engineering Design with Computer Appl	3
COM 115	Fundamentals of Public Speaking	3	SPMS 1185	Public Speaking	3
ENG 210 or ENG 221	Writing II: Academic Writing or Writing II: Writing for the Professions	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
HST 121 or HST 122 or HST 104 or PLS 101	Survey of US History to 1877 or Survey of History since 1877 or World History since 1600 C.E. or American Democracy and Citizenship	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
	<i>See your advisor for course options.</i>	3		Humanities/Social Science Elective	3
	<i>See your advisor for course options.</i>	3		Maximum Free Electives	3
	Group 2 Major Requirements	18		Group 2 Major Requirements	18
	Group 1 Core Requirements	37		Group 1 Core Requirements	32
	Total Hours	55		Total Hours*	50

\*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>MSU-West Plains</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Engineering Design with Computer Appl	3
PSY 121	Introductory Psychology	3	PSYCH 1101	General Psychology	3
HST 121 or	Survey of US History to 1877 or		HISTORY 1300 or	American History to 1877 or	
HST 122 or	Survey of History since 1877 or	3	HISTORY 1310 or	American History since 1877 or	
HST 104 or	World History since 1600 C.E. or		HISTORY 1200 or	Modern Western Civilization or	3
PLS 101	American Democracy and Citizenship		POL SCI 1200	American Government	
ENG 210 or	Writing II: Academic Writing or		ENGLISH 1160 or	Writing and Research or	
COM 115 or	Fundamentals of Public Speaking or	3	SPMS 1185 or	Principles of Speech or	3
ENG 221	Writing II: Writing for the Professions		ENGLISH 3560	Technical Writing	
CSC 125	Intro to C++ Programming	4	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
	<i>See your advisor for course options.</i>	3		Humanities/Social Science Elective	3
	<i>See your advisor for course options.</i>	3		Maximum Free Electives	3
	Group 2 Major Requirements	22		Group 2 Major Requirements	21
	Group 1 Core Requirements	37		Group 1 Core Requirements	32
	Total Hours	59		Total Hours*	53

\*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>MSU-West Plains</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENG 210 or	Writing II: Academic Writing or		ENGLISH 1160 or	Writing and Research or	
COM 115 or	Fundamentals of Public Speaking or	3	SPMS 1185 or	Public Speaking or	3
ENG 221	Writing II: Writing for the Professions		ENGLISH 3560	Technical Writing	
ENG 210 or	Writing II: Academic Writing or		HISTORY 1300 or	American History to 1877 or	
COM 115 or	Fundamentals of Public Speaking or	3	HISTORY 1310 or	American History since 1877 or	3
ENG 221	Writing II: Writing for the Professions		HISTORY 1200	Modern Western Civilization	
GLG 110	Principles of Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
CHM 170	General Chemistry II	3	CHEM 1320	General Chemistry II	3
BIO 101 or	Biological Concepts (3) or	3-4	BIO SCI 1113	General Biology	4
BIO 121	General Biology I (4)			Humanities/Social Science Elective	3
	<i>See your advisor for course options.</i>	3		Maximum Free Electives	0
	<i>No free electives applied to the degree.</i>	0		Group 2 Major Requirements	22
	Group 2 Major Requirements	22		Group 1 Core Requirements	32
	Group 1 Core Requirements	37		Total Hours*	54
	Total Hours	59			

\*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>MSU-West Plains</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENG 210 or COM 115 or ENG 221	Writing II: Academic Writing or Fundamentals of Public Speaking or Writing II: Writing for the Professions	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Public Speaking or Technical Writing	3
HST 121 or HST 122 or HST 104 or PLS 101	Survey of US History to 1877 or Survey of History since 1877 or World History since 1600 C.E. or American Democracy and Citizenship	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
GLG 110	Principles of Geology	4	GEO ENG 1150 (GEOLOGY 1110)	Physical and Environmental Geology	3
CHM 170 or BIO 101 or BIO 121	General Chemistry II (4) or Biological Concepts (3) or General Biology I (4)	3-4	CHEM 1320 or BIO SCI 1113	General Chemistry II or General Biology <small>or any 3-hour course in chemistry, geochemistry, or biology. Satisfies chemistry/geochemistry elective requirement.</small>	3
	<i>See your advisor for course options.</i>	3		Humanities/Social Science Elective	3
	<i>See your advisor for course options.</i>	3		Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	22		Group 2 Major Requirements	21
	Group 1 Core Requirements	37		Group 1 Core Requirements	32
	Total Hours	59		Total Hours*	53

\*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>MSU-West Plains</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Engineering Design with Computer Appl	3
HST 121 or HST 122 or HST 104 or PLS 101	Survey of US History to 1877 or Survey of History since 1877 or World History since 1600 C.E. or American Democracy and Citizenship	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
ENG 210 or COM 115 or ENG 221	Writing II: Academic Writing or Fundamentals of Public Speaking or Writing II: Writing for the Professions	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Principles of Speech or Technical Writing	3
CSC 125	Intro to C++ Programming	4	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
	Literature Elective	3		Literature Elective	3
	<i>See your advisor for course options.</i>	3		Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>	3		Maximum Free Electives	0
	Group 2 Major Requirements	0		Group 2 Major Requirements	18
	Group 1 Core Requirements	37		Group 1 Core Requirements	32
	Total Hours	37		Total Hours*	50

\*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>MSU-West Plains</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENG 210 or COM 115 or ENG 221	Writing II: Academic Writing or Fundamentals of Public Speaking or Writing II: Writing for the Professions	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Public Speaking or Technical Writing	3
HST 121 or HST 122 or HST 104 or PLS 101	Survey of US History to 1877 or Survey of History since 1877 or World History since 1600 C.E. or American Democracy and Citizenship	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
CHM 170	General Chemistry II	3	CHEM 1320	General Chemistry II	3
	<i>See your advisor for course options.</i>	3		Humanities/Social Science Elective	3
	<i>See your advisor for course options.</i>	3		Humanities/Social Science Elective	3
	<i>See your advisor for course options.</i>	5		Maximum Free Electives	5
	Group 2 Major Requirements	23		Group 2 Major Requirements	23
	Group 1 Core Requirements	37		Group 1 Core Requirements	32
	Total Hours	60		Total Hours*	55

\*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>MSU-West Plains</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENG 210 or ENG 221	Writing II: Academic Writing or Writing II: Writing for the Professions	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
HST 121 or HST 122 or HST 104 or PLS 101	Survey of US History to 1877 or Survey of History since 1877 or World History since 1600 C.E. or American Democracy and Citizenship	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
GLG 110	Principles of Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
	<i>See your advisor for course options.</i>	3		Humanities/Social Science Elective	3
	<i>See your advisor for course options.</i>	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	37		Group 1 Core Requirements	32
	Total Hours	56		Total Hours*	50

\*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

Nuclear Engineering Group 2 Major Requirements						
<u>MSU-West Plains</u>			<u>Semester</u>	<u>Missouri S&amp;T</u>		
EGR 110	Introduction to Engineering Design	3		MECH ENG 1720	Engineering Design with Computer Appl	3
ENG 210 or ENG 221	Writing II: Academic Writing or Writing II: Writing for the Professions	3		ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
HST 121 or HST 122 or HST 104 or PLS 101	Survey of US History to 1877 or Survey of History since 1877 or World History since 1600 C.E. or American Democracy and Citizenship	3		HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
	<i>See your advisor for course options.</i>	3			Humanities/Social Science Elective	3
	<i>See your advisor for course options.</i>	3			Humanities/Social Science Elective	3
	<i>See your advisor for course options.</i>	6			Maximum Free Electives	6
	Group 2 Major Requirements	21			Group 2 Major Requirements	21
	Group 1 Core Requirements	37			Group 1 Core Requirements	32
	Total Hours	58			Total Hours*	53
				*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

Petroleum Engineering Group 2 Major Requirements						
<u>MSU-West Plains</u>			<u>Semester</u>	<u>Missouri S&amp;T</u>		
EGR 110	Introduction to Engineering Design	3		MECH ENG 1720	Engineering Design with Computer Appl	3
ENG 210 or ENG 221	Writing II: Academic Writing or Writing II: Writing for the Professions	3		ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
HST 121 or HST 122 or HST 104 or PLS 101	Survey of US History to 1877 or Survey of History since 1877 or World History since 1600 C.E. or American Democracy and Citizenship	3		HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200	American History to 1877 or American History since 1877 or Modern Western Civilization or American Government	3
GLG 110	Principles of Geology	4		GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
	<i>See your advisor for course options.</i>	3			Humanities/Social Science Elective	3
	<i>See your advisor for course options.</i>	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	37			Group 1 Core Requirements	32
	Total Hours	56			Total Hours*	50
				*S&T advisor permission is required to transfer more than 68 credits toward the S&T Petroleum Engineering degree.		