

Missouri State University-West Plains — 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.

Missouri State University-West Plains			Semester	Missouri S&T		
MTH 261	Analytic Geometry and Calculus I	5		MATH 1214	Calculus I	Grade of C or better is required. 4
MTH 280	Analytic Geometry and Calculus II	5		MATH 1215	Calculus II	Grade of C or better is required. 4
MTH 292	Multivariate Calculus	3		MATH 2222	Calculus 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
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
		Total Hours	29			Total Hours 24

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

Missouri State University-West Plains			Semester	Missouri S&T	
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3
ENG 210 or ENG 221 or COM 115	Writing II: Academic Writing or Writing II: Writing for the Professions or Fundamentals of Public Speaking	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 160, 161	General Chemistry I and Lab	5	CHEM 1310*, 1319	General Chemistry I and Lab <small>*CHEM 1310 will be substituted for CHEM 1305.</small>	5
CSC 125	Intro to C++ Programming	4	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
Ethics	Ethics Elective <small>Engineering, business, bio, social or other ethics approved by advisor.</small>	3	Ethics	Ethics Elective <small>Engineering, business, bio, social or other 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 250 or ENG 251 or ENG 240 or HST 121* or HST 122* or ART 200 or MUS 241	Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or Survey of US History to 1877* or Survey of US History since 1877* or Art in Context or The Language of Music <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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* or Art Appreciation or Music Understanding and Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
HST 103 or HST 104* or GRY 100 or PHI 110 or PHI 105 or PLS 101* or PSY 121 or ECO 165 or ECO 155 or Foreign Language	World History to 1600 C.E. or World History Since 1600 C.E.* or World Regional Geography or Intro to Philosophy or Logic, Language, and Argumentation or American Democracy and Citizenship* or Introductory 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	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		33	Group 2 Major Requirements		32
Group 1 Core Requirements		29	Group 1 Core Requirements		24
Total Hours		62	Total Hours*		56
<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

Missouri State University-West Plains			Semester	Missouri S&T		
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3	
ENG 210 or ENG 221 or COM 115	Writing II: Academic Writing or Writing II: Writing for the Professions or Fundamentals of Public Speaking	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 160, 161	General Chemistry I and Lab	5	CHEM 1310*, 1319	General Chemistry I and Lab <small>*CHEM 1310 will be substituted for CHEM 1305.</small>	5	
GLG 110	Principles of 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 250 or ENG 251 or ENG 240 or HST 121* or HST 122* or ART 200 or MUS 241	Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or Survey of US History to 1877* or Survey of US History since 1877* or Art in Context or The Language of Music <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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* or Art Appreciation or Music Understanding and Appreciation <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.						
HST 104*	World History Since 1600 C.E.* <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	
PHI 110 or PHI 105 or PLS 101* or PSY 121 or ECO 165 or ECO 155 or Foreign Language	Intro to Philosophy or Logic, Language, and Argumentation or American Democracy and Citizenship* or Introductory 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	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		27	Group 2 Major Requirements		26	
Group 1 Core Requirements		29	Group 1 Core Requirements		24	
Total Hours		56			Total Hours*	50
<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

Missouri State University-West Plains		Semester	Missouri S&T		
COM 115	Fundamentals of Public Speaking	3	SP&MS 1185	Principles of Speech	3
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 170, 171	General Chemistry II and Lab	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2)	3
BIO 102 or BIO 121 or BIO 235	Biological Science or General Biology I or Principles of Genetics	4	BIO SCI 1113, 1219 or BIO SCI 2223	General Biology and Lab or General Genetics	4
CSC 125* or CSC 131 or CSC 232	Intro to C++ Programming* or Computational Thinking or Data Structures	4	CS 1500 or CS 1971,1981*	Computational Problem Solving or Intro to Programming Methodology and Lab* (C++)	3
Humanities, Arts, and Social Sciences General Education Requirements					
From the options listed in each group below, select 12 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 3 hours Behavioral and Social Sciences.					
*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.					
Humanities and Fine Arts					
Select 6 hours from at least two specific disciplines.					
ENG 250 or ENG 251 or ENG 240 or HST 121* or HST 122* or ART 200 or MUS 241	Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or Survey of US History to 1877* or Survey of US History since 1877* or Art in Context or The Language of Music	6	ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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* or Art Appreciation or Music Understanding and Appreciation	6
*Satisfies the State of Missouri government requirement.					
Behavioral and Social Sciences					
Select 3 hours.					
HST 103 or HST 104* or GRY 100 or PLS 101* or PSY 121 or ECO 165 or ECO 155 or Foreign Language	World History to 1600 C.E. or World History Since 1600 C.E.* or World Regional Geography or American Democracy and Citizenship* or Introductory Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language	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	3
*Satisfies the State of Missouri government requirement.					
Humanities, Arts, and Social Sciences					
ENGLISH 3560 required.					
ENG 221	Writing II: Writing for the Professions	3	ENGLISH 3560	Technical Writing	3
No free electives applied to the degree.		0		Maximum Free Electives	0
Group 2 Major Requirements		32		Group 2 Major Requirements	30
Group 1 Core Requirements		29		Group 1 Core Requirements	24
Total Hours		61			Total Hours* 54
*S&T advisor permission is required to transfer more than 69 credit hours toward the degree.					

*S&T advisor permission is required to transfer more than 69 credit hours toward the degree.

Biomedical Engineering-Biomaterials Group 2 Major Requirements

Missouri State University-West Plains			Semester	Missouri S&T	
COM 115	Fundamentals of Public Speaking	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 170, 171	General Chemistry II and Lab	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3
BIO 102 or BIO 121	Biological Science or General Biology I	4	BIO SCI 1113*, 1219*	General Biology* and Lab* *Applies to degree as Track Elective (Non-engineering).	4
CSC 125* or CSC 131 or CSC 232	Intro to C++ Programming* or Computational Thinking or Data Structures	4	CS 1500 or CS 1971,1981*	Computational Problem Solving or Intro to Programming Methodology and Lab* (C++) *Course will be substituted for CS 1500.	3
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 12 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 3 hours Behavioral and Social Sciences. *At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.					
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.					
ENG 250 or ENG 251 or ENG 240 or HST 121* or HST 122* or ART 200 or MUS 241	Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or Survey of US History to 1877* or Survey of US History since 1877* or Art in Context or The Language of Music *Satisfies the State of Missouri government requirement.	6	ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
Behavioral and Social Sciences Select 3 hours.					
HST 103 or HST 104* or GRY 100 or PLS 101* or PSY 121 or ECO 165 or ECO 155 or Foreign Language	World History to 1600 C.E. or World History Since 1600 C.E.* or World Regional Geography or American Democracy and Citizenship* or Introductory Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or POL SCI 1200* or 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 221	Writing II: Writing for the Professions	3	ENGLISH 3560	Technical Writing	3
No free electives applied to the degree.		0	Maximum Free Electives		0
Group 2 Major Requirements		32	Group 2 Major Requirements		30
Group 1 Core Requirements		29	Group 1 Core Requirements		24
Total Hours		61			Total Hours* 54
*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

Missouri State University-West Plains			Semester	Missouri S&T	
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3
ENG 210 or ENG 221 or COM 115	Writing II: Academic Writing or Writing II: Writing for the Professions or Fundamentals of Public Speaking	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 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 170, 171	General Chemistry II and Lab	4	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
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 250 or ENG 251 or ENG 240 or HST 121* or HST 122* or ART 200 or MUS 241	Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or Survey of US History to 1877* or Survey of US History since 1877* or Art in Context or The Language of Music <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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* or Art Appreciation or Music Understanding and Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
HST 103 or HST 104* or GRY 100 or PHI 110 or PHI 105 or PLS 101* or PSY 121 or ECO 165 or ECO 155 or Foreign Language	World History to 1600 C.E. or World History Since 1600 C.E.* or World Regional Geography or Intro to Philosophy or Logic, Language, and Argumentation or American Democracy and Citizenship* or Introductory 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	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		30	Group 2 Major Requirements		29
Group 1 Core Requirements		29	Group 1 Core Requirements		24
Total Hours		59			Total Hours* 53
<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

Missouri State University-West Plains			Semester	Missouri S&T	
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3
COM 115	Fundamentals of Public Speaking	3	SP&MS 1185	Principles of Speech	3
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	Applies to degree as Gen Ed Communication requirement.	
CHM 170	General Chemistry II	3	CHEM 1320, 1510*	General Chemistry I and Lab	5
CSC 125* or	Intro to C++ Programming* or			General Chemistry II (3) and Qualitative Analysis* (2)	3
CSC 131 or	Computational Thinking or	4	CS 1500 or	*CHEM 1510 is not a degree requirement, transfers as general elective credit.	
CSC 232	Data Structures		CS 1971,1981*	Computational Problem Solving or	
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 250 or	Survey of American Literature I or		ENGLISH 1221 or	American Literature: 1600 to 1865 or	
ENG 251 or	Survey of American Literature II or		ENGLISH 1222 or	American Literature: 1865 to Present or	
ENG 240 or	Survey of World Literature I or		ENGLISH 1231 or	World Literature I: Beginnings to the Renaissance or	
HST 121* or	Survey of US History to 1877* or	6	HISTORY 1300* or	American History to 1877* or	6
HST 122* or	Survey of US History since 1877* or		HISTORY 1310* or	American History Since 1877* or	
ART 200 or	Art in Context or		ART 1180 or	Art Appreciation or	
MUS 241	The Language of Music		MUSIC 1150	Music Understanding and Appreciation	
*Satisfies the State of Missouri government requirement.					
Behavioral and Social Sciences					
Select 6 hours from at least two specific disciplines.					
HST 103 or	World History to 1600 C.E. or		HISTORY 1100 or	Early Western Civilization or	
HST 104* or	World History Since 1600 C.E.* or		HISTORY 1200* or	Modern Western Civilization* or	
GRY 100 or	World Regional Geography or		HISTORY 2110 or	World Regional Geography or	
PHI 110 or	Intro to Philosophy or		PHILOS 1105 or	Self and World: Intro to Philosophy or	
PHI 105 or	Logic, Language, and Argumentation or		PHILOS 1115 or	Logic and Reasoning: An Introduction or	
PLS 101* or	American Democracy and Citizenship* or	6	POL SCI 1200* or	American Government*or	6
PSY 121 or	Introductory Psychology or		PSYCH 1101 or	General Psychology or	
ECO 165 or	Principles of Microeconomics or		ECON 1100 or	Principles of Microeconomics or	
ECO 155 or	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.					
Humanities, Arts, and Social Sciences					
ENGLISH 3560 required.					
ENG 221	Writing II: Writing for the Professions	3	ENGLISH 3560	Technical Writing	3
No free electives applied to the degree.		0	Maximum Free Electives		0
Group 2 Major Requirements		33	Group 2 Major Requirements		32
Group 1 Core Requirements		29	Group 1 Core Requirements		24
Total Hours		62			Total Hours*
					56
*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

Missouri State University-West Plains			Semester	Missouri S&T	
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3
ENG 210 or	Writing II: Academic Writing or		ENGLISH 1160 or	Writing and Research or	
ENG 221 or	Writing II: Writing for the Professions or	3	ENGLISH 3560 or	Technical Writing or	3
COM 115	Fundamentals of Public Speaking		SPMS 1185	Principles of Speech	
				Applies to degree as Gen Ed Communication requirement.	
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
GLG 110	Principles of 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 250 or	Survey of American Literature I or		ENGLISH 1221 or	American Literature: 1600 to 1865 or	
ENG 251 or	Survey of American Literature II or		ENGLISH 1222 or	American Literature: 1865 to Present or	
ENG 240 or	Survey of World Literature I or		ENGLISH 1231 or	World Literature I: Beginnings to the Renaissance or	
HST 121* or	Survey of US History to 1877* or	6	HISTORY 1300* or	American History to 1877* or	6
HST 122* or	Survey of US History since 1877* or		HISTORY 1310* or	American History Since 1877* or	
ART 200 or	Art in Context or		ART 1180 or	Art Appreciation or	
MUS 241	The Language of Music		MUSIC 1150	Music Understanding and Appreciation	
	*Satisfies the State of Missouri government requirement.			*Satisfies the State of Missouri government requirement.	
Behavioral and Social Sciences					
Select 6 hours from at least two specific disciplines.					
HST 103 or	World History to 1600 C.E. or		HISTORY 1100 or	Early Western Civilization or	
HST 104* or	World History Since 1600 C.E.* or		HISTORY 1200* or	Modern Western Civilization* or	
GRY 100 or	World Regional Geography or		HISTORY 2110 or	World Regional Geography or	
PHI 110 or	Intro to Philosophy or		PHILOS 1105 or	Self and World: Intro to Philosophy or	
PHI 105 or	Logic, Language, and Argumentation or		PHILOS 1115 or	Logic and Reasoning: An Introduction or	
PLS 101* or	American Democracy and Citizenship* or	6	POL SCI 1200* or	American Government* or	6
PSY 121 or	Introductory Psychology or		PSYCH 1101 or	General Psychology or	
ECO 165 or	Principles of Microeconomics or		ECON 1100 or	Principles of Microeconomics or	
ECO 155 or	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.			*Satisfies the State of Missouri government requirement.	
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		30	Group 2 Major Requirements		29
Group 1 Core Requirements		29	Group 1 Core Requirements		24
Total Hours		59	Total Hours*		53
*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

Missouri State University-West Plains			Semester	Missouri S&T		
COM 115	Fundamentals of Public Speaking	3		SPMS 1185	Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3
CHM 160, 161	General Chemistry I and Lab	5		CHEM 1310, 1319	General Chemistry I and Lab	5
CSC 125 or CSC 131 or CSC 232	Intro to C++ Programming or Computational Thinking or Data Structures	4		CS 1500	Computational Problem Solving	3
BIO 235	Principles of Genetics	3		BIO SCI 2223	General Genetics (3) <small>Satisfies a required engineering/science elective.</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 250 or ENG 251 or ENG 240 or HST 121* or HST 122* or ART 200 or MUS 241	Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or Survey of US History to 1877* or Survey of US History since 1877* or Art in Context or The Language of Music <small>*Satisfies the State of Missouri government requirement.</small>	6		ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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* or Art Appreciation or Music Understanding and Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.						
HST 103 or HST 104* or GRY 100 or PHI 110 or PHI 105 or PLS 101* or PSY 121 or ECO 165 or ECO 155 or Foreign Language	World History to 1600 C.E. or World History Since 1600 C.E.* or World Regional Geography or Intro to Philosophy or Logic, Language, and Argumentation or American Democracy and Citizenship* or Introductory 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		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 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
Electives	Maximum Free Electives	3		Electives	Maximum Free Electives	3
	Group 2 Major Requirements	33			Group 2 Major Requirements	32
	Group 1 Core Requirements	29			Group 1 Core Requirements	24
	Total Hours	62			Total Hours*	56

*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

Missouri State University-West Plains			Semester	Missouri S&T		
EGR 110	Introduction to Engineering Design	3		MECH ENG 1720	Intro to Engineering Design	3
COM 115	Fundamentals of Public Speaking	3		SPMS 1185	Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3
CHM 160, 161	General Chemistry I and Lab	5		CHEM 1310, 1319	General Chemistry I and Lab	5
CSC 125 or CSC 131 or CSC 232	Intro to C++ Programming or Computational Thinking or Data Structures	4		CS 1500	Computational Problem Solving	3
BIO 235	Principles of Genetics	3		BIO SCI 2223	General Genetics (3) <small>Satisfies a required engineering/science elective.</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 250 or ENG 251 or ENG 240 or HST 121* or HST 122* or ART 200 or MUS 241	Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or Survey of US History to 1877* or Survey of US History since 1877* or Art in Context or The Language of Music <small>*Satisfies the State of Missouri government requirement.</small>	6		ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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* or Art Appreciation or Music Understanding and Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.						
HST 103 or HST 104* or GRY 100 or PHI 110 or PHI 105 or PLS 101* or PSY 121 or ECO 165 or ECO 155 or Foreign Language	World History to 1600 C.E. or World History Since 1600 C.E.* or World Regional Geography or Intro to Philosophy or Logic, Language, and Argumentation or American Democracy and Citizenship* or Introductory 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		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 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
Electives	Maximum Free Electives	6		Electives	Maximum Free Electives	6
	Group 2 Major Requirements	39			Group 2 Major Requirements	38
	Group 1 Core Requirements	29			Group 1 Core Requirements	24
	Total Hours	68			Total Hours*	62

*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

Missouri State University-West Plains			Semester	Missouri S&T		
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3	
COM 115	Fundamentals of Public Speaking	3	SPMS 1185	Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3	
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5	
CSC 125	Intro to C++ Programming	4	CS 1971, 1981	Intro to Programming Method and Lab (C++)	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 250 or ENG 251 or ENG 240 or HST 121* or HST 122* or ART 200 or MUS 241	Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or Survey of US History to 1877* or Survey of US History since 1877* or Art in Context or The Language of Music <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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* or Art Appreciation or Music Understanding and Appreciation <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 PSYCH 1101.						
PSY 121	Introductory Psychology	3	PSYCH 1101	General Psychology Required	3	
HST 103 or HST 104* or GRY 100 or PHI 110 or PHI 105 or PLS 101* or ECO 165 or ECO 155 or Foreign Language	World History to 1600 C.E. or World History Since 1600 C.E.* or World Regional Geography or Intro to Philosophy or Logic, Language, and Argumentation or American Democracy and Citizenship* or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	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 <small>*Satisfies the State of Missouri government requirement.</small>	3	
Humanities, Arts, and Social Sciences						
Select 3 hours.						
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	
No free electives applied to the degree.		0	Electives	Maximum Free Electives	0	
Group 2 Major Requirements		30	Group 2 Major Requirements		29	
Group 1 Core Requirements		29	Group 1 Core Requirements		24	
Total Hours		59			Total Hours*	61
<small>*S&T advisor permission is required to transfer more than 61 credits toward the S&T Engineering Management degree.</small>						

Environmental Engineering Group 2 Major Requirements

Missouri State University-West Plains			Semester	Missouri S&T		
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3	
ENG 210 or ENG 221 or COM 115	Writing II: Academic Writing or Writing II: Writing for the Professions or Fundamentals of Public Speaking	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	
GLG 110	Principles of Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3	
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5	
CHM 170	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 102 or BIO 121	Biological Science or General Biology I	4	BIO SCI 1113, 1219*	General Biology (3) and Lab* (1) <small>*The lab is not a degree requirement, transfers as general elective credit.</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 250 or ENG 251 or ENG 240 or HST 121* or HST 122* or ART 200 or MUS 241	Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or Survey of US History to 1877* or Survey of US History since 1877* or Art in Context or The Language of Music <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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* or Art Appreciation or Music Understanding and Appreciation <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						
HST 104*	World History Since 1600 C.E.* <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	
PHI 110 or PHI 105 or PLS 101* or PSY 121 or ECO 165 or ECO 155 or Foreign Language	Intro to Philosophy or Logic, Language, and Argumentation or American Democracy and Citizenship* or Introductory 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	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		34	Group 2 Major Requirements		32	
Group 1 Core Requirements		29	Group 1 Core Requirements		24	
Total Hours		63	Total Hours*		56	
<small>*S&T advisor permission is required to transfer more than 69 credits toward the S&T Environmental Engineering degree.</small>						

Geological Engineering Group 2 Major Requirements

Missouri State University-West Plains			Semester	Missouri S&T		
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3	
ENG 221	Writing II: Writing for the Professions	3	ENGLISH 3560	Technical Writing Applies to degree as Gen Ed Communication requirement.	3	
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5	
CSC 125* or CSC 131 or CSC 232	Intro to C++ Programming* or Computational Thinking or Data Structures	4	CS 1500 or CS 1971, 1981	Computational Problem Solving or Intro to Programming Methodology and Lab	3	
GLG 110	Principles of Geology	4	GEO ENG 1150 (GEOLOGY 1110)	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 250 or ENG 251 or ENG 240 or HST 121* or HST 122* or ART 200 or MUS 241	Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or Survey of US History to 1877* or Survey of US History since 1877* or Art in Context or The Language of Music *Satisfies the State of Missouri government requirement.	6	ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6	
Behavioral and Social Sciences						
Select 6 hours from at least two specific disciplines.						
HST 103 or HST 104* or GRY 100 or PHI 110 or PHI 105 or PLS 101* or PSY 121 or ECO 165 or ECO 155 or Foreign Language	World History to 1600 C.E. or World History Since 1600 C.E.* or World Regional Geography or Intro to Philosophy or Logic, Language, and Argumentation or American Democracy and Citizenship* or Introductory Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	
Humanities, Arts, and Social Sciences						
Select 3 hours.						
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	
No free electives applied to the degree.		0	Maximum Free Electives		0	
Group 2 Major Requirements		34	Group 2 Major Requirements		32	
Group 1 Core Requirements		29	Group 1 Core Requirements		24	
Total Hours		63	Total Hours*		56	
*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

Missouri State University-West Plains			Semester	Missouri S&T		
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3	
EGR 120	Intro to Computer Aided Design	2	MECH ENG 1761	Intro to Computer Aided Design	1	
ENG 210 or ENG 221 or COM 115	Writing II: Academic Writing or Writing II: Writing for the Professions or Fundamentals of Public Speaking	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 160, 161	General Chemistry I and Lab	5	CHEM 1310*, 1319	General Chemistry I and Lab <small>*CHEM 1310 will be substituted for CHEM 1305.</small>	5	
CSC 125	Intro to C++ Programming	4	CS 1971, 1981	Intro to Programming Method and Lab (C++)	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 250 or ENG 251 or ENG 240 or HST 121* or HST 122* or ART 200 or MUS 241	Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or Survey of US History to 1877* or Survey of US History since 1877* or Art in Context or The Language of Music <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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* or Art Appreciation or Music Understanding and Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6	
Behavioral and Social Sciences						
Select 6 hours from at least two specific disciplines.						
HST 103 or HST 104* or GRY 100 or PHI 110 or PHI 105 or PLS 101* or PSY 121 or ECO 165 or ECO 155 or Foreign Language	World History to 1600 C.E. or World History Since 1600 C.E.* or World Regional Geography or Intro to Philosophy or Logic, Language, and Argumentation or American Democracy and Citizenship* or Introductory 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	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		30	
Group 1 Core Requirements		29	Group 1 Core Requirements		24	
Total Hours		61	Total Hours*		54	
<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

Missouri State University-West Plains		Semester	Missouri S&T	
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design 3
ENG 210 or ENG 221 or COM 115	Writing II: Academic Writing or Writing II: Writing for the Professions or Fundamentals of Public Speaking	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech 3 <small>Applies to degree as Gen Ed Communication requirement.</small>
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab 5
CHM 170	General Chemistry II	3	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) 3 <small>*CHEM 1510 is not a degree requirement, transfers as general elective credit.</small>
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 250 or ENG 251 or ENG 240 or HST 121* or HST 122* or ART 200 or MUS 241	Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or Survey of US History to 1877* or Survey of US History since 1877* or Art in Context or The Language of Music <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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* or Art Appreciation or Music Understanding and Appreciation 6 <small>*Satisfies the State of Missouri government requirement.</small>
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.				
HST 103 or HST 104* or GRY 100 or PHI 110 or PHI 105 or PLS 101* or PSY 121 or ECO 165 or ECO 155 or Foreign Language	World History to 1600 C.E. or World History Since 1600 C.E.* or World Regional Geography or Intro to Philosophy or Logic, Language, and Argumentation or American Democracy and Citizenship* or Introductory 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	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 6 <small>*Satisfies the State of Missouri government requirement.</small>
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	
Group 2 Major Requirements		32	Group 2 Major Requirements	
Group 1 Core Requirements		29	Group 1 Core Requirements	
Total Hours		61	Total Hours*	
			56	

*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

Missouri State University-West Plains			Semester	Missouri S&T		
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3	
ENG 210 or ENG 221 or COM 115	Writing II: Academic Writing or Writing II: Writing for the Professions or Fundamentals of Public Speaking	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 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5	
GLG 110	Principles of 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 250 or ENG 251 or ENG 240 or HST 121* or HST 122* or ART 200 or MUS 241	Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or Survey of US History to 1877* or Survey of US History since 1877* or Art in Context or The Language of Music <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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* or Art Appreciation or Music Understanding and Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6	
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.						
HST 103 or HST 104* or GRY 100 or PHI 110 or PHI 105 or PLS 101* or PSY 121 or ECO 165 or ECO 155 or Foreign Language	World History to 1600 C.E. or World History Since 1600 C.E.* or World Regional Geography or Intro to Philosophy or Logic, Language, and Argumentation or American Democracy and Citizenship* or Introductory 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	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	
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives		0	
Group 2 Major Requirements		27	Group 2 Major Requirements		26	
Group 1 Core Requirements		29	Group 1 Core Requirements		24	
Total Hours		56			Total Hours*	50
<small>*S&T advisor permission is required to transfer more than 68 credits toward the S&T Mining Engineering degree.</small>						

Nuclear Engineering Group 2 Major Requirements

Missouri State University-West Plains			Semester	Missouri S&T		
EGR 110	Introduction to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3	
ENG 210 or ENG 221 or COM 115	Writing II: Academic Writing or Writing II: Writing for the Professions or Fundamentals of Public Speaking	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 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5	
CSC 125	Intro to C++ Programming	4	CS 1971, 1981	Intro to Programming Method and Lab (C++)	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 250 or ENG 251 or ENG 240 or HST 121* or HST 122* or ART 200 or MUS 241	Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or Survey of US History to 1877* or Survey of US History since 1877* or Art in Context or The Language of Music <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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* or Art Appreciation or Music Understanding and Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6	
Behavioral and Social Sciences						
Select 6 hours from at least two specific disciplines.						
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	
HST 103 or HST 104* or GRY 100 or PHI 110 or PHI 105 or PLS 101* or PSY 121 or Foreign Language	World History to 1600 C.E. or World History Since 1600 C.E.* or World Regional Geography or Intro to Philosophy or Logic, Language, and Argumentation or American Democracy and Citizenship* or Introductory Psychology or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	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 <small>*Satisfies the State of Missouri government requirement.</small>	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		30	Group 2 Major Requirements		29	
Group 1 Core Requirements		29	Group 1 Core Requirements		24	
Total Hours		59			Total Hours* 53	
<small>*S&T advisor permission is required to transfer more than 69 credits toward the S&T Nuclear Engineering degree.</small>						

Petroleum Engineering Group 2 Major Requirements

Missouri State University-West Plains			Semester	Missouri S&T	
ENG 210 or ENG 221 or COM 115	Writing II: Academic Writing or Writing II: Writing for the Professions or Fundamentals of Public Speaking	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 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CSC 125	Intro to C++ Programming	4	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
GLG 110	Principles of 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 250 or ENG 251 or ENG 240 or HST 121* or HST 122* or ART 200 or MUS 241	Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or Survey of US History to 1877* or Survey of US History since 1877* or Art in Context or The Language of Music <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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* or Art Appreciation or Music Understanding and Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
HST 103 or HST 104* or GRY 100 or PHI 110 or PHI 105 or PLS 101* or PSY 121 or ECO 165 or ECO 155 or Foreign Language	World History to 1600 C.E. or World History Since 1600 C.E.* or World Regional Geography or Intro to Philosophy or Logic, Language, and Argumentation or American Democracy and Citizenship* or Introductory 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	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		31	Group 2 Major Requirements		29
Group 1 Core Requirements		29	Group 1 Core Requirements		24
Total Hours		60	Total Hours*		53
<small>*S&T advisor permission is required to transfer more than 69 credits toward the S&T Petroleum Engineering degree.</small>					