

Eastern Iowa Community College District — 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>Eastern Iowa Community College District</u>			<u>Semester</u>	<u>Missouri S&T</u>				
MAT 210	Calculus I	4	MATH 1214	Calculus for Engineers I	Grade of C or better is required.	4		
MAT 216	Calculus II	4	MATH 1215	Calculus for Engineers II	Grade of C or better is required.	4		
MAT 219	Calculus III	4	MATH 2222	Calculus with Analytic Geometry III	Grade of C or better is required.	4		
MAT 227	Differential Equations	3	MATH 3304	Elementary Differential Equations		3		
PHY 212	Classical Physics I	5	PHYSICS 1135	Engineering Physics I	Grade of C or better is required.	4		
PHY 222	Classical Physics II	5	PHYSICS 2135	Engineering Physics II	Grade of C or better is required.	4		
CHM 165	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab		5		
EGR 410	PLTW-Principles of Engineering	3	FR ENG 1100	Study and Careers in Engineering and Computing		1		
ENG 105	Composition I	3	ENGLISH 1120	Exposition and Argumentation		3		
ECN 130 or ECN 120	Principles of Microeconomics or Principles of Macroeconomics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics		3		
Total Hours			38				Total Hours	35

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. Your campus may have additional acceptable options. Consult with your advisor or email transfer@mst.edu with questions.

Aerospace Engineering Group 2 Major Requirements

<u>Eastern Iowa Community College District</u>		<u>Semester</u>	<u>Missouri S&T</u>		
EGR 160	Engineering I	3	MECH ENG 1720	Engineering Design with Computer Appl	3
HIS 151 or	US History to 1877 or		HISTORY 1300 or	American History to 1877 or	
HIS 152 or	US History since 1877 or	3	HISTORY 1310 or	American History since 1877 or	3
HIS 119 or	Western Civilization III: The Modern Period or		HISTORY 1200 or	Modern Western Civilization or	
POL 111	American National Government		POL SCI 1200	American Government	
ENG 106 or	Composition II or		ENGLISH 1160 or	Writing and Research or	
SPC 112 or	Public Speaking or	3	SPMS 1185 or	Principles of Speech or	3
ENG 108	Composition II: Technical Writing		ENGLISH 3560	Technical Writing	
EGR 285	Intro to Electrical Science	4	EE 2800	Circuit Analysis I	3
EGR 180	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 280	Dynamics	3	AERO ENG 2360	Dynamics	3
EGR 290	Thermodynamics	3	MECH ENG 2519	Thermodynamics	3
EGR 380	Mechanics of Deformable Bodies	3	CIV ENG 2210	Mechanics of Materials	3
	Literature Elective	3		Literature Elective	3
	Ethics Elective	3		Ethics Elective	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	31		Group 2 Major Requirements	30
	Group 1 Core Requirements	38		Group 1 Core Requirements	35
	Total Hours	69		Total Hours*	65

*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>Eastern Iowa Community College District</u>		<u>Semester</u>	<u>Missouri S&T</u>		
EGR 160	Engineering I	3	MECH ENG 1720	Engineering Design with Computer Appl	3
HIS 119*	Western Civilization III: The Modern Period		HISTORY 1200*	Modern Western Civilization*	
(or HIS 151 or	(or US History to 1877 or		(or HISTORY 1300 or	(or American History to 1877 or	3
HIS 152)	US History since 1877)		HISTORY 1310)	American History since 1877)	
				<small>*HISTORY 1200 is preferred; 1300 or 1310 will also be accepted.</small>	
EGR 180	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 280	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	3
EGR 380	Mechanics of Deformable Bodies	3	CIV ENG 2210	Mechanics of Materials	3
ENG 106 or	Composition II or		ENGLISH 1160 or	Writing and Research or	
SPC 112 or	Public Speaking or		SPMS 1185 or	Public Speaking or	
HSS Elective	Humanities/Social Science Elective: history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language	3	HSS Elective	Humanities/Social Science Elective: history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	15		Group 2 Major Requirements	18
	Group 1 Core Requirements	38		Group 1 Core Requirements	35
	Total Hours	53		Total Hours*	53

*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>Eastern Iowa Community College District</u>		<u>Semester</u>	<u>Missouri S&T</u>		
EGR 160	Engineering I	3	MECH ENG 1720	Engineering Design with Computer Appl	3
HIS 151 or	US History to 1877 or		HISTORY 1300 or	American History to 1877 or	
HIS 152 or	US History since 1877 or	3	HISTORY 1310 or	American History since 1877 or	3
HIS 119 or	Western Civilization III: The Modern Period or		HISTORY 1200 or	Modern Western Civilization or	
POL 111	American National Government		POL SCI 1200	American Government	
EGR 180	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 380	Mechanics of Deformable Bodies	3	CIV ENG 2210	Mechanics of Materials	3
CHM 175	General Chemistry II	4	CHEM 1320	General Chemistry II	3
ENG 106 or	Composition II or		ENGLISH 1160 or	Writing and Research or	
SPC 112 or	Public Speaking or		SPMS 1185 or	Public Speaking or	
HSS Elective	Humanities/Social Science Elective: history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language	3	HSS Elective	Humanities/Social Science Elective: history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	22		Group 2 Major Requirements	21
	Group 1 Core Requirements	38		Group 1 Core Requirements	35
	Total Hours	60		Total Hours*	56

*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>Eastern Iowa Community College District</u>		<u>Semester</u>	<u>Missouri S&T</u>		
EGR 160	Engineering I	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENG 106or	Composition II or		ENGLISH 1160 or	Writing and Research or	
ENG 108	Composition II: Technical Writing	3	ENGLISH 3560	Technical Writing	3
HIS 151 or	US History to 1877 or		HISTORY 1300 or	American History to 1877 or	
HIS 152 or	US History since 1877 or	3	HISTORY 1310 or	American History since 1877 or	3
HIS 119 or	Western Civilization III: The Modern Period or		HISTORY 1200 or	Modern Western Civilization or	
POL 111	American National Government		POL SCI 1200	American Government	
CHM 175	General Chemistry II	4	CHEM 1320	General Chemistry II	3
BIO 186	Microbiology	4	BIO SCI 3313, 3319	Microbiology and Lab (5) (Will satisfy science elective requirement. Select up to 8 hours from these options.)	5
EGR 290	Thermodynamics	3	MECH ENG 2519*	Thermodynamics* *The combination of MECH ENG 2519 AND CHEM ENG 4000 (an independent study, online S&T course) will be substituted for CHEM ENG 2110 by the chemical engineering department. Students must complete both courses to receive credit.	3
SPC 112	Public Speaking	3	SP&MS 1185	Principles of Speech	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	26		Group 2 Major Requirements	26
	Group 1 Core Requirements	38		Group 1 Core Requirements	35
	Total Hours	64		Total Hours*	61

*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>Eastern Iowa Community College District</u>			<u>Semester</u>	<u>Missouri S&T</u>		
EGR 160	Engineering I	3	MECH ENG 1720	Engineering Design with Computer Appl	3	
ENG 106or	Composition II or	3	ENGLISH 1160 or	Writing and Research or	3	
ENG 108	Composition II: Technical Writing		ENGLISH 3560	Technical Writing		
HIS 151 or	US History to 1877 or	3	HISTORY 1300 or	American History to 1877 or	3	
HIS 152 or	US History since 1877 or		HISTORY 1310 or	American History since 1877 or		
HIS 119 or	Western Civilization III: The Modern Period or		HISTORY 1200 or	Modern Western Civilization or		
POL 111	American National Government		POL SCI 1200	American Government		
CHM 175	General Chemistry II	4	CHEM 1320	General Chemistry II	3	
BIO 186	Microbiology	4	BIO SCI 3313, 3319	Microbiology and Lab (5) (Will satisfy science elective requirement. Select up to 8 hours from these options.)	5	
EGR 290	Thermodynamics	3	MECH ENG 2519*	Thermodynamics* *The combination of MECH ENG 2519 AND CHEM ENG 4000 (an independent study, online S&T course) will be substituted for CHEM ENG 2110 by the chemical engineering department. Students must complete both courses to receive credit.	3	
SPC 112	Public Speaking	3	SP&MS 1185	Principles of Speech	3	
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3	
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0	
	Group 2 Major Requirements	26		Group 2 Major Requirements	26	
	Group 1 Core Requirements	38		Group 1 Core Requirements	35	
	Total Hours	64		Total Hours*	61	

*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>Eastern Iowa Community College District</u>			<u>Semester</u>	<u>Missouri S&T</u>		
EGR 160	Engineering I	3	MECH ENG 1720	Engineering Design with Computer Appl	3	
ENG 106 or	Composition II or	3	ENGLISH 1160 or	Writing and Research or	3	
SPC 112 or	Public Speaking or		SPMS 1185 or	Public Speaking or		
ENG 108	Composition II: Technical Writing		ENGLISH 3560	Technical Writing		
HIS 151 or	US History to 1877 or	3	HISTORY 1300 or	American History to 1877 or	3	
HIS 152 or	US History since 1877 or		HISTORY 1310 or	American History since 1877 or		
HIS 119 or	Western Civilization III: The Modern Period or		HISTORY 1200 or	Modern Western Civilization or		
POL 111	American National Government		POL SCI 1200	American Government		
EGR 180	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
EGR 280	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	3	
EGR 380	Mechanics of Deformable Bodies	3	CIV ENG 2210	Mechanics of Materials	3	
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3	
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0	
	Group 2 Major Requirements	21		Group 2 Major Requirements	21	
	Group 1 Core Requirements	38		Group 1 Core Requirements	35	
	Total Hours	59		Total Hours*	56	

*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>Eastern Iowa Community College District</u>		<u>Semester</u>	<u>Missouri S&T</u>		
SPC 112	Public Speaking	3	SPMS 1185	Public Speaking	3
ENG 106or	Composition II or	3	ENGLISH 1160 or	Writing and Research or	3
ENG 108	Composition II: Technical Writing		ENGLISH 3560	Technical Writing	
HIS 151 or	US History to 1877 or		HISTORY 1300 or	American History to 1877 or	
HIS 152 or	US History since 1877 or	3	HISTORY 1310 or	American History since 1877 or	3
HIS 119 or	Western Civilization III: The Modern Period or		HISTORY 1200 or	Modern Western Civilization or	
POL 111	American National Government		POL SCI 1200	American Government	
EGR 180 and	Statics (3) and		CIV ENG 2200 and	Engineering Mechanics-Statics (3) and	
EGR 280	Dynamics (3)		MECH ENG 2350	Engineering Mechanics-Dynamics (3)	
(BOTH of the courses above or	(Both courses above combined or any one of the following courses	3	(BOTH of the courses above or	(Both courses above combined or any one of the following courses will satisfy	3
ONE of the courses below.)	will satisfy a required engineering science elective.)		ONE of the courses below.)	a required engineering science elective.)	
OR	OR		OR	OR	
EGR 290	Thermodynamics (3)		MECH ENG 2519	Thermodynamics (3)	
EGR 285	Intro to Electrical Science	4	EE 2100**	Circuits I **A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for EE 2100.	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>See your advisor for course options.</i>	0		Maximum Free Electives	3
	Group 2 Major Requirements	19		Group 2 Major Requirements	21
	Group 1 Core Requirements	38		Group 1 Core Requirements	35
	Total Hours	57		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

<u>Eastern Iowa Community College District</u>		<u>Semester</u>	<u>Missouri S&T</u>		
EGR 160	Engineering I	3	MECH ENG 1720	Engineering Design with Computer Appl	3
SPC 112	Public Speaking	3	SPMS 1185	Public Speaking	3
ENG 106or	Composition II or	3	ENGLISH 1160 or	Writing and Research or	3
ENG 108	Composition II: Technical Writing		ENGLISH 3560	Technical Writing	
HIS 151 or	US History to 1877 or		HISTORY 1300 or	American History to 1877 or	
HIS 152 or	US History since 1877 or	3	HISTORY 1310 or	American History since 1877 or	3
HIS 119 or	Western Civilization III: The Modern Period or		HISTORY 1200 or	Modern Western Civilization or	
POL 111	American National Government		POL SCI 1200	American Government	
EGR 180 and	Statics (3) and		CIV ENG 2200 and	Engineering Mechanics-Statics (3) and	
EGR 280	Dynamics (3)		MECH ENG 2350	Engineering Mechanics-Dynamics (3)	
(BOTH of the courses above or	(Both courses above combined or any one of the following courses	3	(BOTH of the courses above or	(Both courses above combined or any one of the following courses will satisfy	3
ONE of the courses below.)	will satisfy a required engineering science elective.)		ONE of the courses below.)	a required engineering science elective.)	
OR	OR		OR	OR	
EGR 290	Thermodynamics (3)		MECH ENG 2519	Thermodynamics (3)	
EGR 285	Intro to Electrical Science	4	EE 2100**	Circuits I **A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for EE 2100.	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>See your advisor for course options.</i>	3		Maximum Free Electives	3
	Group 2 Major Requirements	25		Group 2 Major Requirements	24
	Group 1 Core Requirements	38		Group 1 Core Requirements	35
	Total Hours	63		Total Hours*	59

*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>Eastern Iowa Community College District</u>		<u>Semester</u>	<u>Missouri S&T</u>		
EGR 160	Engineering I	3	MECH ENG 1720	Engineering Design with Computer Appl	3
PSY 111	Intro to Psychology	3	PSYCH 1101	General Psychology	3
HIS 151 or HIS 152 or HIS 119 or POL 111	US History to 1877 or US History since 1877 or Western Civilization III: The Modern Period or American National Government	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 106 or SPC 112 or ENG 108	Composition II or Public Speaking or Composition II: Technical Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Principles of Speech or Technical Writing	3
EGR 285	Intro to Electrical Science	4	EE 2800	Circuit Analysis I	3
EGR 180	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 280	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	3
EGR 380	Mechanics of Deformable Bodies	3	CIV ENG 2210	Mechanics of Materials	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>See your advisor for course options.</i>	3		Maximum Free Electives	3
	Group 2 Major Requirements	31		Group 2 Major Requirements	30
	Group 1 Core Requirements	38		Group 1 Core Requirements	35
	Total Hours	69		Total Hours*	65

*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>Eastern Iowa Community College District</u>		<u>Semester</u>	<u>Missouri S&T</u>		
EGR 160	Engineering I	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENG 106 or SPC 112 or ENG 108	Composition II or Public Speaking or Composition II: Technical Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Public Speaking or Technical Writing	3
HIS 151 or HIS 152 or HIS 119	US History to 1877 or US History since 1877 or Western Civilization III: The Modern Period	3	HISTORY 1300 or HISTORY 1310 or HISTORY 1200	American History to 1877 or American History since 1877 or Modern Western Civilization	3
CHM 175	General Chemistry II	4	CHEM 1320	General Chemistry II	3
BIO 114	General Biology IA	4	BIO SCI 1113	General Biology	4
EGR 180	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 280	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	3
EGR 380	Mechanics of Deformable Bodies	3	CIV ENG 2210	Mechanics of Materials	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	29		Group 2 Major Requirements	28
	Group 1 Core Requirements	38		Group 1 Core Requirements	35
	Total Hours	67		Total Hours*	63

*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>Eastern Iowa Community College District</u>		<u>Semester</u>	<u>Missouri S&T</u>		
EGR 160	Engineering I	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENG 106 or SPC 112 or ENG 108	Composition II or Public Speaking or Composition II: Technical Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Public Speaking or Technical Writing	3
HIS 151 or HIS 152 or HIS 119 or POL 111	US History to 1877 or US History since 1877 or Western Civilization III: The Modern Period or American National Government	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
EGR 180	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 280	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	3
EGR 380	Mechanics of Deformable Bodies	3	CIV ENG 2210	Mechanics of Materials	3
BIO 114 or CHM 175	General Biology I or General Chemistry II	4	BIO SCI 1113 or CHEM 1320	General Biology or General Chemistry II <small>or any 3-hour course in chemistry, geochemistry, or biology. Satisfies chemistry/geochemistry elective requirement.</small>	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	28		Group 2 Major Requirements	27
	Group 1 Core Requirements	38		Group 1 Core Requirements	35
	Total Hours	66		Total Hours*	62

*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>Eastern Iowa Community College District</u>		<u>Semester</u>	<u>Missouri S&T</u>		
EGR 160	Engineering I	3	MECH ENG 1720	Engineering Design with Computer Appl	3
HIS 151 or HIS 152 or HIS 119 or POL 111	US History to 1877 or US History since 1877 or Western Civilization III: The Modern Period or American National Government	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 106 or SPC 112 or ENG 108	Composition II or Public Speaking or Composition II: Technical Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Principles of Speech or Technical Writing	3
EGR 285	Intro to Electrical Science	4	EE 2800	Circuit Analysis I	3
EGR 180	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 280	Dynamics	3	MECH ENG 2360	Dynamics	3
EGR 380	Mechanics of Deformable Bodies	3	CIV ENG 2210	Mechanics of Materials	3
EGR 290	Thermodynamics	3	MECH ENG 2519	Thermodynamics	3
	Literature Elective	3		Literature Elective	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	31		Group 2 Major Requirements	30
	Group 1 Core Requirements	38		Group 1 Core Requirements	35
	Total Hours	69		Total Hours*	65

*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

Eastern Iowa Community College District		Semester	Missouri S&T		
EGR 160	Engineering I	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENG 106 or SPC 112 or ENG 108	Composition II or Public Speaking or Composition II: Technical Writing	3	ENGLISH 1160 or SPMS 1185 or ENGLISH 3560	Writing and Research or Public Speaking or Technical Writing	3
HIS 151 or HIS 152 or HIS 119 or POL 111	US History to 1877 or US History since 1877 or Western Civilization III: The Modern Period or American National Government	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
EGR 180	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 380	Mechanics of Deformable Bodies	3	CIV ENG 2210	Mechanics of Materials	3
CHM 175	General Chemistry II	4	CHEM 1320	General Chemistry II	3
GR 285	Intro to Electrical Science	4	EE 2800	Electrical Circuits (3) <i>Not specifically required for the degree but will satisfy Out-of-Department Technical Elective Requirement.</i>	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>See your advisor for course options.</i>	5		Maximum Free Electives	5
	Group 2 Major Requirements	34		Group 2 Major Requirements	32
	Group 1 Core Requirements	38		Group 1 Core Requirements	35
	Total Hours	72		Total Hours*	67

*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

Eastern Iowa Community College District		Semester	Missouri S&T		
EGR 160	Engineering I	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENG 106 or ENG 108	Composition II or Composition II: Technical Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
HIS 151 or HIS 152 or HIS 119 or POL 111	US History to 1877 or US History since 1877 or Western Civilization III: The Modern Period or American National Government	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
EGR 180	Statics	3	CIV ENG 2200*	Engineering Mechanics-Statics	3
EGR 280	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	3
EGR 380	Mechanics of Deformable Bodies	3	CIV ENG 2210	Mechanics of Materials	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	24		Group 2 Major Requirements	24
	Group 1 Core Requirements	38		Group 1 Core Requirements	35
	Total Hours	62		Total Hours*	59

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

Nuclear Engineering Group 2 Major Requirements

<u>Eastern Iowa Community College District</u>		<u>Semester</u>	<u>Missouri S&T</u>		
EGR 160	Engineering I	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENG 106or	Composition II or	3	ENGLISH 1160 or	Writing and Research or	3
ENG 108	Composition II: Technical Writing		ENGLISH 3560	Technical Writing	
HIS 151 or	US History to 1877 or		HISTORY 1300 or	American History to 1877 or	
HIS 152 or	US History since 1877 or	3	HISTORY 1310 or	American History since 1877 or	3
HIS 119 or	Western Civilization III: The Modern Period or		HISTORY 1200 or	Modern Western Civilization or	
POL 111	American National Government		POL SCI 1200	American Government	
EGR 180	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 380	Mechanics of Deformable Bodies	3	CIV ENG 2210	Mechanics of Materials	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>See your advisor for course options.</i>	6		Maximum Free Electives	6
	Group 2 Major Requirements	27		Group 2 Major Requirements	27
	Group 1 Core Requirements	38		Group 1 Core Requirements	35
	Total Hours	65		Total Hours*	62

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

Petroleum Engineering Group 2 Major Requirements

<u>Eastern Iowa Community College District</u>		<u>Semester</u>	<u>Missouri S&T</u>		
EGR 160	Engineering I	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENG 106or	Composition II or	3	ENGLISH 1160 or	Writing and Research or	3
ENG 108	Composition II: Technical Writing		ENGLISH 3560	Technical Writing	
HIS 151 or	US History to 1877 or		HISTORY 1300 or	American History to 1877 or	
HIS 152 or	US History since 1877 or	3	HISTORY 1310 or	American History since 1877 or	3
HIS 119 or	Western Civilization III: The Modern Period or		HISTORY 1200 or	Modern Western Civilization or	
POL 111	American National Government		POL SCI 1200	American Government	
EGR 180	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 280	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	3
EGR 380	Mechanics of Deformable Bodies	3	CIV ENG 2210	Mechanics of Materials	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	24		Group 2 Major Requirements	24
	Group 1 Core Requirements	38		Group 1 Core Requirements	35
	Total Hours	62		Total Hours*	59

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