

Eastern Illinois University — Missouri S&T

General Engineering Transfer Guide

Effective as of Fall 2023

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 Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
MAT 1441G	Calculus and Analytical Geometry I	5	MATH 1214	Calculus I	4
MAT 2442	Calculus and Analytical Geometry II	5	MATH 1215	Calculus II	4
MAT 2443	Calculus and Analytical Geometry III	4	MATH 2222	Calculus III	4
MAT 3501	Differential Equations	3	MATH 3304	Elementary Differential Equations	3
PHY 1351G,1352G and PHY 1361,1362 and PHY 1371,1372	General Physics I and Lab and General Physics II and Lab and General Physics III and Lab	12	PHYSICS 1135 PHYSICS 2135	Engineering Physics I Physics II	4
	EIU PHY 1351G, 1352G, 1361, 1362, 1371, 1372 must all be taken to receive credit for S&T PHYSICS 1135 and 2135.			Grade of C or better is required. Engineering Grade of C or better is required. EIU PHY 1351G, 1352G, 1361, 1362, 1371, 1372 must all be taken to receive credit for S&T PHYSICS 1135 and 2135.	
CHM 1310G,1315G	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5
PHY 1000	Engineering Orientation	1	FR ENG 1100	Study and Careers in Engineering and Computing	1
ENG 1001G	Composition and Language	3	ENGLISH 1120	Exposition and Argumentation	3
ECN 2801G or ECN 2802G	Principles of Microeconomics or Principles of Macroeconomics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3
Total Hours		40	Total Hours		31

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

Aerospace Engineering Group 2 Major Requirements

<u>Eastern Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
INT 2043	Computer-Aided Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov.	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
ENG 1002G or CMN 1310G	Composition and Literature or Intro to Speech Communication	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
PHY 3270	Intro to Circuit Analysis	3	EE 2800	Electrical Circuits	3
PHY 2390	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
MAT 2550	Introduction to Linear Algebra	3	MATH 3108	Linear Algebra I or (Will satisfy the Advanced Math/Comp Sci elective requirement.)	3
ENG 3903A or ENG 390B or ENG 2705	Women, Literature, and Language, Pre-1800 or Women, Literature, and Language, Post-1800 or African-American Literature (or other literature elective)	3	ENGLISH 2242 or ENGLISH 2245 or	Literature by Women or African American Literature (or other literature elective)	3
	Ethics Elective	3		Ethics Elective Engineering, business, bio, social or other ethics approved by advisor.	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	40		Group 1 Core Requirements	31
	Total Hours	64		Total Hours*	55

*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 Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
INT 2043	Computer-Aided Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
PLS 1153G or HIS 2010 or HIS 2020	American Government and Constitution or History of US to 1877 or History of US Since 1877	3	HISTORY 1200* (or HISTORY 1300 or HISTORY 1310)	Modern Western Civilization* (or American History to 1877 or American History since 1877)	3
PHY 2390	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHY 2400	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
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	14
	Group 1 Core Requirements	40		Group 1 Core Requirements	31
	Total Hours	55		Total Hours*	45

*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 Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
INT 2043	Computer-Aided Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov.	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
PHY 2390	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
CHM 2440, 2445	Organic Chemistry I and Lab	4	CHEM 2210	Organic Chemistry I <i>(Will satisfy the advanced chemistry elective requirement.)</i>	4
CHM 1410, 1415	General Chemistry II and Lab	4	CHEM 1320	General Chemistry II	3
ENG 1002G or CMN 130G or HSS Elective	Composition and Literature or Intro to Speech Communication or Humanities/Social Science Elective: history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language	3	ENGLISH 1160 or SPMS 1185 or HSS Elective	Writing and Research or Principles of Speech or Humanities/Social Science Elective: history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	23		Group 2 Major Requirements	22
	Group 1 Core Requirements	40		Group 1 Core Requirements	31
	Total Hours	63		Total Hours*	53

*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 Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
INT 2043	Computer-Aided Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov.	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
CHM 1410, 1415	General Chemistry II and Lab	4	CHEM 1320	General Chemistry II	3
CHM 2440, 2445	Organic Chemistry I and Lab	4	CHEM 2210, 2219*	Organic Chemistry I and Lab* <i>*The lab is not required for the degree, will transfer as 1 of the 9 science elective credits (below).</i>	4
CHM 2840, 2845	Organic Chemistry II and Lab	4	CHEM 2220	Organic Chemistry II <i>(Will satisfy science elective requirement. Select up to 9 hours from these options or CHEM 2219 Organic Chemistry Lab.)</i>	8
MAT 2670	Computer Science II	4	CS 1500	Computational Problem Solving	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	25		Group 2 Major Requirements	27
	Group 1 Core Requirements	40		Group 1 Core Requirements	31
	Total Hours	65		Total Hours*	58

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

Chemical Engineering - Biochemical Engineering Emphasis Group 2 Major Requirements

<u>Eastern Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
INT 2043	Computer-Aided Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov.	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
CHM 1410, 1415	General Chemistry II and Lab	4	CHEM 1320	General Chemistry II	3
CHM 2440, 2445	Organic Chemistry I and Lab	4	CHEM 2210, 2219*	Organic Chemistry I (3) and Lab* (1) <small>*The lab is not required for the degree, will transfer as 1 of the 9 science elective credits (below) .</small>	4
CHM 2840, 2845	Organic Chemistry II and Lab	4	CHEM 2220	Organic Chemistry II (3) <small>(Will satisfy science elective requirement. Select up to 9 hours from these options or CHEM 2219 Organic Chemistry Lab.)</small>	8
MAT 2670	Computer Science II	4	CS 1500	Computational Problem Solving	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	25		Group 2 Major Requirements	27
	Group 1 Core Requirements	40		Group 1 Core Requirements	31
	Total Hours	65		Total Hours*	58

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

Civil Engineering Group 2 Major Requirements

<u>Eastern Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
INT 2043	Computer-Aided Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENG 1002G	Composition and Literature	3	ENGLISH 1160	Writing and Research	3
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov.	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
GEL 1300 or GEL 1400	Earth Science or Physical Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
PHY 2390	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHY 2400	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
	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	20
	Group 1 Core Requirements	40		Group 1 Core Requirements	31
	Total Hours	62		Total Hours*	51

*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 Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
CMN 1310G	Intro to Speech Communication	3	SPMS 1185	Principles of Speech	3
ENG 1002G	Composition and Literature	3	ENGLISH 1160	Writing and Research	3
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov.	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
MAT 2670	Computer Science II	4	CS 1500	Computational Problem Solving	3
PHY 2390 or PHY 2400	Statics or Dynamics	3	CIV ENG 2200 or MECH ENG 2350	Engineering Mechanics-Statics (3) or Engineering Mechanics-Dynamics (2)	2
PHY 3270	Intro to Circuit Analysis	3	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
MAT 2550	Intro to Linear Algebra	3	MATH 3108	Linear Algebra (Will satisfy a required math elective.)	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	Maximum Free Electives	3		Maximum Free Electives	3
	Group 2 Major Requirements	25		Group 2 Major Requirements	26
	Group 1 Core Requirements	40		Group 1 Core Requirements	31
	Total Hours	65		Total Hours*	57

*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 Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
INT 2043	Computer-Aided Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
CMN 1310G	Intro to Speech Communication	3	SPMS 1185	Principles of Speech	3
ENG 1002G	Composition and Literature	3	ENGLISH 1160	Writing and Research	3
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov.	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
MAT 2670	Computer Science II	4	CS 1500	Computational Problem Solving	3
PHY 2390 and PHY 2400	Statics and Dynamics	6	CIV ENG 2200 and MECH ENG 2350 (BOTH of the courses above or ONE of the courses below.)	Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (2) (Both courses above combined or any one of the following courses will satisfy a required engineering science elective.)	3
PHY 3270	Intro to Circuit Analysis	3	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
MAT 2550	Intro to Linear Algebra	3	MATH 3108	Linear Algebra	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	Maximum Free Electives	3		Maximum Free Electives	3
	Group 2 Major Requirements	34		Group 2 Major Requirements	30
	Group 1 Core Requirements	40		Group 1 Core Requirements	31
	Total Hours	74		Total Hours*	61

*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 Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
INT 2043	Computer-Aided Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
PSY 1879G	Introductory Psychology	3	PSYCH 1101	General Psychology	3
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov.	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
CMN 1310G	Intro to Speech Communication	3	SPMS 1185	Principles of Speech	3
ENG 1002G	Composition and Literature	3	ENGLISH 1160	Writing and Research	3
PHY 3270	Intro to Circuit Analysis	3	EE 2800	Electrical Circuits	3
PHY 2390	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHY 2400	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	Maximum Free Electives	3		Maximum Free Electives	3
	Group 2 Major Requirements	30		Group 2 Major Requirements	29
	Group 1 Core Requirements	40		Group 1 Core Requirements	31
	Total Hours	70		Total Hours*	60

*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 Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
INT 2043	Computer-Aided Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENG 1002G or CMN 1310G	Composition and Literature or Intro to Speech Communication	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
HIS 2010 or HIS 2020 or PLS 1153G	History of US to 1877 or History of US Since 1877 or American Government and Constitution	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310	Modern Western Civilization or American History to 1877 or American History since 1877	3
GEL 1400	Physical Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
CHM 1410, 1415	General Chemistry II and Lab	4	CHEM 1320	General Chemistry II	3
BIO 1010	General Biology	4	BIO SCI 1113	General Biology	4
PHY 2390	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHY 2400	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
	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	30		Group 2 Major Requirements	27
	Group 1 Core Requirements	40		Group 1 Core Requirements	31
	Total Hours	70		Total Hours*	58

*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 Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
INT 2043	Computer-Aided Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov.	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
GEL 1400	Physical Geology	4	GEO ENG 1150 (GEOLOGY 1110)	Physical and Environmental Geology	3
PHY 2390	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHY 2400	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
BIO 1010 or CHM 2440, 2445 or CHM 2840, 2845	General Biology or Organic Chemistry I and Lab or Organic Chemistry II and Lab	4	BIO SCI 1113 or CHEM 1320 or CHEM 2210	General Biology or General Chemistry II or Organic Chemistry I or any 3-hour course in chemistry, geochemistry, or biology. Satisfies chemistry/geochemistry elective requirement.	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	26		Group 2 Major Requirements	23
	Group 1 Core Requirements	40		Group 1 Core Requirements	31
	Total Hours	66		Total Hours*	54

*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 Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
INT 2043	Computer-Aided Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov.	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
ENG 1002G or CMN 1310G	Composition and Literature or Intro to Speech Communication	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
PHY 3270	Intro to Circuit Analysis	3	EE 2800	Electrical Circuits	3
PHY 2390	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHY 2400	Dynamics	3	MECH ENG 2360	Dynamics	3
MAT 2550	Intro to Linear Algebra	3	MATH 3108	Linear Algebra I (Will satisfy the Advanced Math/Computer Science elective requirement.)	3
ENG 3903A or ENG 390B or ENG 2705	Women, Literature, and Language, Pre-1800 or Women, Literature, and Language, Post-1800 or African-American Literature (or other literature elective)	3	ENGLISH 2242 or ENGLISH 2245 or	Literature by Women or African American Literature (or other 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	27		Group 2 Major Requirements	27
	Group 1 Core Requirements	40		Group 1 Core Requirements	31
	Total Hours	67		Total Hours*	58

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

Metallurgical Engineering Group 2 Major Requirements

<u>Eastern Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
INT 2043	Computer-Aided Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENG 1002G or CMN 1310G	Composition and Literature or Intro to Speech Communication	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov.	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
PHY 2390	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
CHM 1410,1415	General Chemistry II and Lab	4	CHEM 1320	General Chemistry II	3
CHM 2440, 2445 or PHY 3270	Organic Chemistry I and Lab or Intro to Circuit Analysis	4	CHEM 2210 or EE 2800	Organic Chemistry I (4) or 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
	Maximum Free Electives	5		Maximum Free Electives	3
	Group 2 Major Requirements	31		Group 2 Major Requirements	27
	Group 1 Core Requirements	40		Group 1 Core Requirements	31
	Total Hours	71		Total Hours*	58

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

Mining Engineering Group 2 Major Requirements

<u>Eastern Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
INT 2043	Computer-Aided Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENG 1002G or CMN 1310G	Composition and Literature or Intro to Speech Communication	3	ENGLISH 1160 or ENGLISH 1600	Writing and Research or Intro to Technical Communications	3
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov.	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
PHY 2390	Statics	3	CIV ENG 2200*	Engineering Mechanics-Statics	3
PHY 2400	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
GEL 1400	Physical Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	25		Group 2 Major Requirements	23
	Group 1 Core Requirements	40		Group 1 Core Requirements	31
	Total Hours	65		Total Hours*	54

*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 Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
INT 2043	Computer-Aided Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENG 1002G or CMN 1310G	Composition and Literature or Intro to Speech Communication	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov.	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
MAT 2550	Intro to Linear Algebra	3	MATH 3108	Linear Algebra	3
PHY 2390	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHY 3270	Intro to Circuit Analysis	3	EE 2800	Electrical Circuits	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	Humanities/Social Science Elective	3		Humanities/Social Science Elective	3
	Maximum Free Electives	6		Maximum Free Electives	6
	Group 2 Major Requirements	30		Group 2 Major Requirements	30
	Group 1 Core Requirements	40		Group 1 Core Requirements	31
	Total Hours	70		Total Hours*	61

*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 Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
INT 2043	Computer-Aided Engineering Drawing	3	MECH ENG 1720	Engineering Design with Computer Appl	3
ENG 1002G	Composition and Literature	3	ENGLISH 1160	Writing and Research	3
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov.	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
GEL 1400	Physical Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
PHY 2390	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHY 2400	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
	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	25		Group 2 Major Requirements	23
	Group 1 Core Requirements	40		Group 1 Core Requirements	31
	Total Hours	65		Total Hours*	54

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