

Eastern Illinois University — Missouri S&T

General Engineering

Transfer Guide Effective as of Fall 2024

Complete Group 1 - Core Requirements and Group 2 - Major Requirements for major of choice.

Group 1 - Core Requirements: All Majors Take All Courses

Engineering students take all Group 1 - Core Requirements and Group 2 - Major Requirements for major of choice. Math prerequisites: While they are not part of Missouri S&T engineering degree requirements, algebra and trigonometry skills are critical to success in calculus. To prepare for entry into calculus, students should follow math placement testing and advising recommendations at their college.

<u>Eastern Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
MAT 1441G	Calculus and Analytic Geometry I	5	MATH 1214	Calculus I Grade of C or better is required.	4
MAT 2442	Calculus and Analytic Geometry II	5	MATH 1215	Calculus II Grade of C or better is required.	4
MAT 2443	Calculus and Analytic Geometry III	4	MATH 2222	Calculus III Grade of C or better is required.	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 <small>EIU PHY 1351G, 1352G, 1361, 1362, 1371, 1372 must all be taken to receive credit for S&T PHYSICS 1135 and 2135.</small>	12	PHYSICS 1135 and PHYSICS 2135	Engineering Physics I and Engineering Physics II <small>EIU PHY 1351G, 1352G, 1361, 1362, 1371, 1372 must all be taken to receive credit for S&T PHYSICS 1135 and 2135.</small>	8
CHM 1310G, 1315G	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5
PHY 1001	Intro to Physics and Engineering	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		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
Biomedical Engineering/Biomufacturing or Biomaterials
Ceramic Engineering
Chemical Engineering and Biochemistry Emphasis
Civil Engineering
Computer Engineering
Electrical Engineering

Engineering Management
Environmental Engineering
Geological Engineering
Mechanical Engineering
Metallurgical Engineering
Mining Engineering
Nuclear Engineering
Petroleum Engineering

Engineering Major Requirements are detailed on the following pages.

Free Electives: Some programs allow Free Electives as indicated within each major. Free Electives should be selected in consultation with your advisor and may not include remedial/deficiency courses, algebra, trigonometry, pre-calculus, or extra credits in required courses.

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

Aerospace Engineering Group 2 Major Requirements

<u>Eastern Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600G	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	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
CIT 1813	Intro to Programming (C++)	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	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 <small>Will satisfy the Advanced Math/Comp Sci elective requirement.</small>	3
	Literature Elective	3		Literature Elective	3
Ethics	Ethics Elective <small>or other engineering, business, bio, social ethics approved by advisor</small>	3	Ethics	Ethics Elective <small>or other engineering, business, bio, social ethics approved by advisor</small>	3
	<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	40		Group 1 Core Requirements	35
	Total Hours	67		Total Hours*	61

*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>		
HIS 2010 or HIS 2020	History of US to 1877 or History of US Since 1877	3	HISTORY 1300 or HISTORY 1310	American History to 1877 or American History since 1877	3
Humanities or Social Science or Communication	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language or one communication course from this list: ENG1002G or CMN 1310G.	3	Humanities or Social Science or Communication	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language or one communication course from this list: ENGLISH 1160, 1600, 3560 or SPMS 1185.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	12		Group 2 Major Requirements	11
	Group 1 Core Requirements	40		Group 1 Core Requirements	35
	Total Hours	52		Total Hours*	46

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

Biomedical Engineering-Biomanufacturing Group 2 Major Requirements

<u>Eastern Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
CMN 1310G	Intro to Speech Communication	3	SP&MS 1185	Principles of Speech	3
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600G	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	American History to 1877 or American History since 1877 or American Government	3
CHM 1410, 1415	General Chemistry II and Lab	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not an S&T degree requirement. Will transfer as general credit.</small>	3
CHM 2440, 2445	Organic Chemistry I and Lab	4	CHEM 2210, 2219	Organic Chemistry I and Lab	4
CHM 2840, 2845	Organic Chemistry II and Lab	4	CHEM 2220, 2229	Organic Chemistry II and Lab <small>Applies to degree as Track Elective.</small>	4
BIO 2210	Anatomy and Physiology I	4	BIO SCI 3333, 3339	Anatomy and Physiology I and Lab	4
CIT 1813	Intro to Programming (C++)	3	CS 1971,1981*	Intro to Programming Methodology and Lab* C++ <small>*Will be substituted for CS 1500.</small>	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	25		Group 2 Major Requirements	27
	Group 1 Core Requirements	40		Group 1 Core Requirements	35
	Total Hours	65		Total Hours*	62

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

Biomedical Engineering-Biomaterials Group 2 Major Requirements

<u>Eastern Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
CMN 1310G	Intro to Speech Communication	3	SP&MS 1185	Principles of Speech	3
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600G	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	American History to 1877 or American History since 1877 or American Government	3
CHM 1410, 1415	General Chemistry II and Lab	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not an S&T degree requirement. Will transfer as general credit.</small>	3
CHM 2440, 2445	Organic Chemistry I and Lab	4	CHEM 2210, 2219*	Organic Chemistry I and Lab* <small>*CHEM 2219 Lab applies to the degree as a Track Elective (non-engineering).</small>	4
CHM 2840, 2845	Organic Chemistry II and Lab	4	CHEM 2220, 2229*	Organic Chemistry II and Lab* <small>CHEM 2229 Lab applies to the degree as a Track Elective (non-engineering).</small>	4
BIO 2210	Anatomy and Physiology I	4	BIO SCI 3333, 3339	Human Anatomy and Physiology I and Lab	4
CIT 1813	Intro to Programming (C++)	3	CS 1971,1981*	Intro to Programming Methodology and Lab* C++ <small>*Will be substituted for CS 1500.</small>	3
PHY 2390	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	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. Applies to the degree as a Track Elective (Engineering).	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	40		Group 1 Core Requirements	35
	Total Hours	71		Total Hours*	65

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

Ceramic Engineering Group 2 Major Requirements

<u>Eastern Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600G	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	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 <small>Will satisfy the advanced chemistry elective requirement.</small>	3
CHM 1410, 1415	General Chemistry II and Lab	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not an S&T degree requirement. Will transfer as general credit.</small>	3
ENG 1002G or CMN 130G or HSS Elective	Composition and Literature or Intro to Speech Communication Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	ENGLISH 1160 or SPMS 1185 or HSS Elective	Writing and Research or Principles of Speech or Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	23		Group 2 Major Requirements	21
	Group 1 Core Requirements	40		Group 1 Core Requirements	35
	Total Hours	63		Total Hours*	56

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

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

<u>Eastern Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600G	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	American History to 1877 or American History since 1877 or American Government	3
CHM 1410, 1415	General Chemistry II and Lab	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not an S&T degree requirement. Will transfer as general credit.</small>	3
CHM 2440, 2445	Organic Chemistry I and Lab	4	CHEM 2210, 2219*	Organic Chemistry I and Lab* <small>*The lab will apply to the degree as 1 of the 9 science elective credits (below).</small>	4
CHM 2840, 2845	Organic Chemistry II and Lab	4	CHEM 2220, 2219*	Organic Chemistry II <small>CHEM 2220 will apply to the degree as 3 of the 9 required science elective credits (above). CHEM 2219 is not required for the degree, will transfer as general elective credit.</small>	3
CIT 1813	Intro to Programming (C++)	3	CS 1971,1981*	Intro to Programming Methodology and Lab* C++ <small>*Will be substituted for CS 1500.</small>	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	21		Group 2 Major Requirements	19
	Group 1 Core Requirements	40		Group 1 Core Requirements	35
	Total Hours	61		Total Hours*	54

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

Civil Engineering Group 2 Major Requirements

<u>Eastern Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
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 3600G	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	American History to 1877 or American History since 1877 or American Government	3
PHY 2390	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	15		Group 2 Major Requirements	14
	Group 1 Core Requirements	40		Group 1 Core Requirements	35
	Total Hours	55		Total Hours*	49

*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 3600G	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	American History to 1877 or American History since 1877 or American Government	3
CIT 1813	Intro to Programming (C++)	3	CS 1971,1981*	Intro to Programming Methodology and Lab* C++) <small>*Will be substituted for CS 1500.</small>	3
PHY 2390or CHM 2440	Statics or Organic Chemistry I	3	CIV ENG 2200or CHEM 2210	Engineering Mechanics-Statics (3) or Organic Chemistry I (3) <small>Satisfies a required engineering/science elective.</small>	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 <small>Will satisfy a required math elective.</small>	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Electives	Maximum Free Electives	3	Electives	Maximum Free Electives	3
	Group 2 Major Requirements	27		Group 2 Major Requirements	27
	Group 1 Core Requirements	40		Group 1 Core Requirements	35
	Total Hours	67		Total Hours*	62

*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>		
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 3600G	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	American History to 1877 or American History since 1877 or American Government	3
CIT 1813	Intro to Programming (C++)	3	CS 1971,1981*	Intro to Programming Methodology and Lab* C++) <small>*Will be substituted for CS 1500.</small>	3
PHY 2390 or S&T MECH ENG 2350 BOTH of the courses above or ONE of the courses below. OR CHM 2440	Statics (3) and Classical Dynamics (3) at Missouri S&T Both courses above combined or any one of the following courses will satisfy a required engineering science elective. OR Organic Chemistry I (3)	3	CIV ENG 2200 and MECH ENG 2350 BOTH of the courses above or ONE of the courses below. OR CHEM 2210	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. OR Organic Chemistry I (3)	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 or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Electives	Maximum Free Electives	3	Electives	Maximum Free Electives	3
	Group 2 Major Requirements	27		Group 2 Major Requirements	27
	Group 1 Core Requirements	40		Group 1 Core Requirements	35
	Total Hours	67		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

<u>Eastern Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
PSY 1879G	Introductory Psychology	3	PSYCH 1101	General Psychology	3
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600G	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	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 or ENGLISH 3560	Writing and Research or Technical Writing	3
CIT 1813	Intro to Programming (C++)	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
PHY 3270	Intro to Circuit Analysis	3	EE 2800	Electrical Circuits	3
PHY 2390	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	3	Electives	Maximum Free Electives	0
	Group 2 Major Requirements	30		Group 2 Major Requirements	26
	Group 1 Core Requirements	40		Group 1 Core Requirements	35
	Total Hours	70		Total Hours*	61

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

Environmental Engineering Group 2 Major Requirements

<u>Eastern Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
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	History of US to 1877 or History of US Since 1877	3	HISTORY 1300 or HISTORY 1310	American History to 1877 or American History since 1877	3
CHM 1410, 1415	General Chemistry II and Lab	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not an S&T degree requirement. Will transfer as general credit.</small>	3
PHY 2390	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	19		Group 2 Major Requirements	17
	Group 1 Core Requirements	40		Group 1 Core Requirements	35
	Total Hours	59		Total Hours*	52

*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>		
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600G	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	American History to 1877 or American History since 1877 or American Government	3
CIT 1813	Intro to Programming (C++)	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
PHY 2390	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	18		Group 2 Major Requirements	17
	Group 1 Core Requirements	40		Group 1 Core Requirements	35
	Total Hours	58		Total Hours*	52

*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>		
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600G	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	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
CIT 1813	Intro to Programming (C++)	3	CS 1971, 1981 EE 2800	Intro to Programming Method and Lab (C++) Electrical Circuits	3 3
PHY 2390	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
MAT 2550	Intro to Linear Algebra	3	MATH 3108	Linear Algebra I <small>Will satisfy the Advanced Math/Statistics elective requirement.</small>	3
	Literature Elective	3		Literature Elective	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	24		Group 2 Major Requirements	27
	Group 1 Core Requirements	40		Group 1 Core Requirements	35
	Total Hours	64		Total Hours*	62

*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>		
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 3600G	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	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, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not an S&T degree requirement. Will transfer as general credit.</small>	3
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) <small>Not specifically required for the degree but will satisfy Out-of-Department Technical Elective Requirement.</small>	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Electives	Maximum Free Electives	5	Electives	Maximum Free Electives	3
	Group 2 Major Requirements	28		Group 2 Major Requirements	24
	Group 1 Core Requirements	40		Group 1 Core Requirements	35
	Total Hours	68		Total Hours*	59

*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

Mining Engineering Group 2 Major Requirements					
<u>Eastern Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
ENG 1002G	Composition and Literature	3	ENGLISH 1160	Writing and Research	3
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600G	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	American History to 1877 or American History since 1877 or American Government	3
PHY 2390	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	18		Group 2 Major Requirements	17
	Group 1 Core Requirements	40		Group 1 Core Requirements	35
	Total Hours	58		Total Hours*	52

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

Nuclear Engineering Group 2 Major Requirements

Nuclear Engineering Group 2 Major Requirements					
<u>Eastern Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
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 3600G	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov.	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	American History to 1877 or American History since 1877 or American Government	3
CIT 1813	Intro to Programming (C++)	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	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 or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Electives	Maximum Free Electives	6	Electives	Maximum Free Electives	6
	Group 2 Major Requirements	30		Group 2 Major Requirements	30
	Group 1 Core Requirements	40		Group 1 Core Requirements	35
	Total Hours	70		Total Hours*	65

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

Petroleum Engineering Group 2 Major Requirements

Petroleum Engineering Group 2 Major Requirements					
<u>Eastern Illinois University</u>		<u>Semester</u>	<u>Missouri S&T</u>		
ENG 1002G	Composition and Literature	3	ENGLISH 1160	Writing and Research	3
HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600G	History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Government	3	HISTORY 1300 or HISTORY 1310 or POL SCI 1200	American History to 1877 or American History since 1877 or American Government	3
PHY 2390	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	18		Group 2 Major Requirements	17
	Group 1 Core Requirements	40		Group 1 Core Requirements	35
	Total Hours	58		Total Hours*	52

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