

Eastern Iowa Community Colleges — 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.

Eastern Iowa Community Colleges			Semester	Missouri S&T		
MAT 210	Calculus I	4		MATH 1214	Calculus I	Grade of C or better is required. 4
MAT 216	Calculus II	4		MATH 1215	Calculus II	Grade of C or better is required. 4
MAT 219	Calculus III	4		MATH 2222	Calculus 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
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
		Total Hours	31			Total Hours 27

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

Eastern Iowa Community Colleges			Semester	Missouri S&T		
EGR 160	Engineering I	3	MECH ENG 1720	Intro to Engineering Design	3	
ENG 106 or ENG 10 8or SPC 112	Composition II or Composition II: Technical Writing or 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 165	General Chemistry I	4	CHEM 1310*, 1319	General Chemistry I and Lab <small>*CHEM 1310 will be substituted for CHEM 1305.</small>	5	
CIS 161	C++	3	COMP SCI 1971, 1981	Intro to Programming Method and Lab (C++)	3	
EGR 285	Intro to Electrical Science	4	ELEC ENG 2800	Electrical Circuits	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	
PHI 105	Intro to Ethics <small>or other engineering, business, bio, social ethics approved by advisor</small>	3	PHILOS 1130	How Should I Live? An Introduction to Ethics <small>or other engineering, business, bio, social 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.						
LIT 140 or LIT 141 or LIT 110 or LIT 111 or HIS 151* or HIS 152* or ART 101 or MUS 100	British Literature I or British Literature II or American Literature to Mid-1800's or American Literature since Mid-1800's or US History to 1877* or US History since 1877* or Art Appreciation or Music Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present 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.						
HIS 117 or HIS 119* or GEO 121 or PHI 101 or PHI 110 or POL 111* or PSY 111 or ECN 130 or ECN 120 or Foreign Language	Western Civilization I: Ancient and Medieval or Western Civilization III: The Modern Period* or World Regional Geography or Intro to Philosophy or Intro to Logic or American National Government* or Intro to 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		47	Group 2 Major Requirements		47	
Group 1 Core Requirements		31	Group 1 Core Requirements		27	
Total Hours		78			Total Hours*	74
<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

Eastern Iowa Community Colleges		Semester	Missouri S&T		
EGR 160	Engineering I	3	MECH ENG 1720	Intro to Engineering Design	3
ENG 106 or ENG 10 8or SPC 112	Composition II or Composition II: Technical Writing or 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 165	General Chemistry I	4	CHEM 1310*, 1319	General Chemistry I and Lab <small>*CHEM 1310 will be substituted for CHEM 1305.</small>	5
EGR 180	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 280	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
EGR 290	Thermodynamics	3	MECH ENG 2519*	Thermodynamics* <small>*Will be substituted for MECH ENG 2527.</small>	3
EGR 380	Mechanics of Deformable Bodies	3	CIV ENG 2210	Mechanics of Materials	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.					
LIT 140 or LIT 141 or LIT 110 or LIT 111 or HIS 151* or HIS 152* or ART 101 or MUS 100	British Literature I or British Literature II or American Literature to Mid-1800's or American Literature since Mid-1800's or US History to 1877* or US History since 1877* or Art Appreciation or Music Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present 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.					
HIS 119*	Western Civilization III: The Modern Period* <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 101 or PHI 110 or POL 111* or PSY 111 or ECN 130 or ECN 120 or Foreign Language	Intro to Philosophy or Intro to Logic or American National Government* or Intro to 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		34
Group 1 Core Requirements		31	Group 1 Core Requirements		27
Total Hours		65	Total Hours*		61
<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

Eastern Iowa Community Colleges			Semester	Missouri S&T	
SPC 112	Public Speaking	3	SP&MS 1185	Principles of Speech	3
CHM 165	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 175	General Chemistry II	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2)	3
CHM 261	Organic Chemistry I	4	CHEM 2210	Organic Chemistry I	3
CHM 271 or BIO 114	Organic Chemistry II or General Biology IA	4	CHEM 2220 or BIO SCI 1113, 1219	Organic Chemistry II (3) or General Biology (3) and Lab (1)	4
CIS 189 or CIS 161	Python or C++ or	3	COMP SCI 1500 or COMP SCI 1971,1981*	Computational Problem Solving or Intro to Programming Methodology and Lab* (C++)	3
EGR 290	Thermodynamics	3	MECH ENG 2519*	Thermodynamics*	3
*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 biomedical engineering department. Students must complete both courses to receive credit.					
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.					
LIT 140 or LIT 141 or LIT 110 or LIT 111 or HIS 151* or HIS 152* or ART 101 or MUS 100	British Literature I or British Literature II or American Literature to Mid-1800's or American Literature since Mid-1800's or US History to 1877* or US History since 1877* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present 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.					
HIS 117 or HIS 119* or GEO 121 or POL 111* or PSY 111 or ECN 130 or ECN 120 or Foreign Language	Western Civilization I: Ancient and Medieval or Western Civilization III: The Modern Period* or World Regional Geography or American National Government* or Intro to 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 108	Composition II: Technical Writing	3	ENGLISH 3560	Technical Writing	3
No free electives applied to the degree.		0	Maximum Free Electives		0
Group 2 Major Requirements		37	Group 2 Major Requirements		36
Group 1 Core Requirements		31	Group 1 Core Requirements		27
Total Hours		68			Total Hours*
*S&T advisor permission is required to transfer more than 69 credit hours toward the degree.					

Biomedical Engineering-Biomaterials Group 2 Major Requirements

Eastern Iowa Community Colleges		Semester	Missouri S&T			
SPC 112	Public Speaking	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
CHM 165	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
CHM 175	General Chemistry II	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	
CHM 261	Organic Chemistry I	4	CHEM 2210	Organic Chemistry I	3	
CHM 271	Organic Chemistry II	4	CHEM 2220	Organic Chemistry II	4	
BIO 114	General Biology IA	4	BIO SCI 1113*, 1219*	General Biology* and Lab* *Applies to degree as Track Elective (Non-engineering).	4	
CIS 189 or CIS 161	Python or C++ or	3	COMP SCI 1500 or COMP SCI 1971,1981*	Computational Problem Solving or Intro to Programming Methodology and Lab* (C++) *Will be substituted for COMP SCI 1500.	3	
EGR 180	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
EGR 285	Intro to Electrical Science	4	ELEC ENG 2100*, 2101	Circuits I* (3) and Circuit Analysis Lab (1) *A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for ELEC ENG 2100. Applies to the degree as a Track Elective (Engineering).	4	
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.						
LIT 140 or LIT 141 or LIT 110 or LIT 111 or HIS 151* or HIS 152* or ART 101 or MUS 100	British Literature I or British Literature II or American Literature to Mid-1800's or American Literature since Mid-1800's or US History to 1877* or US History since 1877* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present 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.						
HIS 117 or HIS 119* or GEO 121 or POL 111* or PSY 111 or ECN 130 or ECN 120 or Foreign Language	Western Civilization I: Ancient and Medieval or Western Civilization III: The Modern Period* or World Regional Geography or American National Government* or Intro to 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 108	Composition II: Technical Writing	3	ENGLISH 3560	Technical Writing	3	
No free electives applied to the degree.		0		Maximum Free Electives	0	
Group 2 Major Requirements		45		Group 2 Major Requirements	44	
Group 1 Core Requirements		31		Group 1 Core Requirements	27	
Total Hours		76			Total Hours*	71
*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

Eastern Iowa Community Colleges		Semester	Missouri S&T		
EGR 160	Engineering I	3	MECH ENG 1720	Intro to Engineering Design	3
ENG 106 or ENG 10 8or SPC 112	Composition II or Composition II: Technical Writing or 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
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 165	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 175	General Chemistry II	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
CHM 261	Organic Chemistry I	4	CHEM 2210	Organic Chemistry I <small>Satisfies the advanced chemistry elective requirement.</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.					
LIT 140 or LIT 141 or LIT 110 or LIT 111 or HIS 151* or HIS 152* or ART 101 or MUS 100	British Literature I or British Literature II or American Literature to Mid-1800's or American Literature since Mid-1800's or US History to 1877* or US History since 1877* or Art Appreciation or Music Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present 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.					
HIS 117 or HIS 119* or GEO 121 or PHI 101 or PHI 110 or POL 111* or PSY 111 or ECN 130 or ECN 120 or Foreign Language	Western Civilization I: Ancient and Medieval or Western Civilization III: The Modern Period* or World Regional Geography or Intro to Philosophy or Intro to Logic or American National Government* or Intro to 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		39	Group 2 Major Requirements		38
Group 1 Core Requirements		31	Group 1 Core Requirements		27
Total Hours		70			Total Hours*
*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

Eastern Iowa Community Colleges			Semester	Missouri S&T	
EGR 160	Engineering I	3	MECH ENG 1720	Intro to Engineering Design	3
SPC 112	Public Speaking	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHM 165	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 175	General Chemistry II	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
CHM 261	Organic Chemistry I	4	CHEM 2210	Organic Chemistry I	4
CHM 271 or BIO 186	Organic Chemistry II or Microbiology Select up to 8 hours from these options.	8	CHEM 2220 or BIO SCI 3313, 3319	Organic Chemistry II (3) or Microbiology and Lab (5) Applies to the degree as required science elective credits. Select up to 8 hours from these options.	8
CIS 189 or CIS 161	Python or C++ or	3	COMP SCI 1500 or COMP SCI 1971,1981*	Computational Problem Solving or Intro to Programming Methodology and Lab* (C++) *Will be substituted for COMP SCI 1500.	3
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
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.					
LIT 140 or LIT 141 or LIT 110 or LIT 111 or HIS 151* or HIS 152* or ART 101 or MUS 100	British Literature I or British Literature II or American Literature to Mid-1800's or American Literature since Mid-1800's or US History to 1877* or US History since 1877* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present 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.					
HIS 117 or HIS 119* or GEO 121 or PHI 101 or PHI 110 or POL 111* or PSY 111 or ECN 130 or ECN 120 or Foreign Language	Western Civilization I: Ancient and Medieval or Western Civilization III: The Modern Period* or World Regional Geography or Intro to Philosophy or Intro to Logic or American National Government* or Intro to 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 ENGLISH 3560 required.					
ENG 108	Composition II: Technical Writing	3	ENGLISH 3560	Technical Writing	3
No free electives applied to the degree.		0	Maximum Free Electives		0
Group 2 Major Requirements		47	Group 2 Major Requirements		47
Group 1 Core Requirements		31	Group 1 Core Requirements		27
Total Hours		78	Total Hours*		74
*S&T advisor permission is required to transfer more than 68 credits toward the S&T Chemical Engineering degree.					

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Civil Engineering Group 2 Major Requirements

Eastern Iowa Community Colleges			Semester	Missouri S&T		
EGR 160	Engineering I	3	MECH ENG 1720	Intro to Engineering Design	3	
ENG 106 or ENG 10 8or SPC 112	Composition II or Composition II: Technical Writing or 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 165	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
EGR 180	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
EGR 280	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2	
EGR 380	Mechanics of Deformable Bodies	3	CIV ENG 2210	Mechanics of Materials	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.						
LIT 140 or LIT 141 or LIT 110 or LIT 111 or HIS 151* or HIS 152* or ART 101 or MUS 100	British Literature I or British Literature II or American Literature to Mid-1800's or American Literature since Mid-1800's or US History to 1877* or US History since 1877* or Art Appreciation or Music Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present 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.						
HIS 117 or HIS 119* or GEO 121 or PHI 101 or PHI 110 or POL 111* or PSY 111 or ECN 130 or ECN 120 or Foreign Language	Western Civilization I: Ancient and Medieval or Western Civilization III: The Modern Period* or World Regional Geography or Intro to Philosophy or Intro to Logic or American National Government* or Intro to 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		34	Group 2 Major Requirements		34	
Group 1 Core Requirements		31	Group 1 Core Requirements		27	
Total Hours		65			Total Hours*	61
<small>*S&T advisor permission is required to transfer more than 69 credits toward the S&T Civil Engineering degree.</small>						

Computer Engineering Group 2 Major Requirements

Eastern Iowa Community Colleges			Semester	Missouri S&T		
SPC 112	Public Speaking	3	SPMS 1185	Principles of Speech	3	Applies to degree as Gen Ed Communication requirement.
CHM 165	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
			COMP SCI 1200	Discrete Math for Computer Science	3	
CIS 189 or CIS 161	Python or C++ or	3	COMP SCI 1500 or COMP SCI 1971,1981*	Computational Problem Solving or Intro to Programming Methodology and Lab*	3	*Will be substituted for COMP SCI 1500.
EGR 180 or EGR 280 or EGR 290 or CHM 261	Statics or Dynamics or Thermodynamics or Organic Chemistry I (4)	3	CIV ENG 2200 or MECH ENG 2350 or MECH ENG 2519 or CHEM 2210	Engineering Mechanics-Statics (3) or Engineering Mechanics-Dynamics (2) or Thermodynamics (3) or Organic Chemistry I (3)	3	Satisfies a required engineering/science elective.
EGR 285	Intro to Electrical Science	4	ELEC ENG 2100*, 2101	Circuits I* (3) and Circuit Analysis Lab (1)	4	*A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for ELEC ENG 2100.
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.						
LIT 140 or LIT 141 or LIT 110 or LIT 111 or HIS 151* or HIS 152* or ART 101 or MUS 100	British Literature I or British Literature II or American Literature to Mid-1800's or American Literature since Mid-1800's or US History to 1877* or US History since 1877* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present 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.						
HIS 117 or HIS 119* or GEO 121 or PHI 101 or PHI 110 or POL 111* or PSY 111 or ECN 130 or ECN 120 or Foreign Language	Western Civilization I: Ancient and Medieval or Western Civilization III: The Modern Period* or World Regional Geography or Intro to Philosophy or Intro to Logic or American National Government* or Intro to 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.						
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	
Electives	Maximum Free Electives	3	Electives	Maximum Free Electives	3	
	Group 2 Major Requirements	35		Group 2 Major Requirements	39	
	Group 1 Core Requirements	31		Group 1 Core Requirements	27	
	Total Hours	66			Total Hours*	66

*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

Eastern Iowa Community Colleges			Semester	Missouri S&T	
EGR 160	Engineering I	3	MECH ENG 1720	Intro to Engineering Design	3
SPC 112	Public Speaking	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHM 165	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CIS 189 or CIS 161	Python or C++ or	3	COMP SCI 1500 or COMP SCI 1971,1981*	Computational Problem Solving or Intro to Programming Methodology and Lab* *Will be substituted for COMP SCI 1500.	3
EGR 180 and EGR 280 BOTH of the courses above or ONE of the courses below. OR EGR 290 or CHM 261	Statics and Dynamics Both courses above combined or any one of the following courses will satisfy a required engineering science elective. OR Thermodynamics or Organic Chemistry I	3	CIV ENG 2200 and MECH ENG 2350 BOTH of the courses above or ONE of the courses below. OR MECH ENG 2519 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 Thermodynamics (3) or Organic Chemistry I (3)	3
EGR 285	Intro to Electrical Science	4	ELEC ENG 2100*, 2101	Circuits I* (3) and Circuit Analysis Lab (1) *A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for ELEC ENG 2100.	4
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.					
LIT 140 or LIT 141 or LIT 110 or LIT 111 or HIS 151* or HIS 152* or ART 101 or MUS 100	British Literature I or British Literature II or American Literature to Mid-1800's or American Literature since Mid-1800's or US History to 1877* or US History since 1877* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present 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.					
HIS 117 or HIS 119* or GEO 121 or PHI 101 or PHI 110 or POL 111* or PSY 111 or ECN 130 or ECN 120 or Foreign Language	Western Civilization I: Ancient and Medieval or Western Civilization III: The Modern Period* or World Regional Geography or Intro to Philosophy or Intro to Logic or American National Government* or Intro to 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.					
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
Electives	Maximum Free Electives	6	Electives	Maximum Free Electives	6
	Group 2 Major Requirements	41		Group 2 Major Requirements	42
	Group 1 Core Requirements	31		Group 1 Core Requirements	27
	Total Hours	72		Total Hours*	69
*S&T advisor permission is required to transfer more than 68 credits toward the S&T Electrical Engineering degree.					

*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

Eastern Iowa Community Colleges			Semester	Missouri S&T	
EGR 160	Engineering I	3	MECH ENG 1720	Intro to Engineering Design	3
SPC 112	Public Speaking	3	SPMS 1185	Principles of Speech	3
CHM 165	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CIS 161	C++	3	COMP SCI 1971, 1981	Intro to Programming Method and Lab (C++)	3
EGR 285	Intro to Electrical Science	4	ELEC ENG 2800	Electrical Circuits	3
EGR 180	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 280	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
EGR 290	Thermodynamics	3	MECH ENG 2519*	Thermodynamics*	3
EGR 380	Mechanics of Deformable Bodies	3	CIV ENG 2210	Mechanics of Materials	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.					
LIT 140 or LIT 141 or LIT 110 or LIT 111 or HIS 151* or HIS 152* or ART 101 or MUS 100	British Literature I or British Literature II or American Literature to Mid-1800's or American Literature since Mid-1800's or US History to 1877* or US History since 1877* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present 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 to include PSYCH 1101.					
PSY 111	Intro to Psychology	3	PSYCH 1101	General Psychology Required	3
HIS 117 or HIS 119* or GEO 121 or PHI 101 or PHI 110 or POL 111* or ECN 130 or ECN 120 or Foreign Language	Western Civilization I: Ancient and Medieval or Western Civilization III: The Modern Period* or World Regional Geography or Intro to Philosophy or Intro to Logic or American National Government* 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 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 *Satisfies the State of Missouri government requirement.	3
Humanities, Arts, and Social Sciences					
Select 3 hours.					
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
No free electives applied to the degree.		0	Electives	Maximum Free Electives	0
Group 2 Major Requirements		44	Group 2 Major Requirements		43
Group 1 Core Requirements		31	Group 1 Core Requirements		27
Total Hours		75			Total Hours*
*S&T advisor permission is required to transfer more than 61 credits toward the S&T Engineering Management degree.					

Environmental Engineering Group 2 Major Requirements

Eastern Iowa Community Colleges		Semester	Missouri S&T			
EGR 160	Engineering I	3	MECH ENG 1720	Intro to Engineering Design	3	
ENG 106 or ENG 10 8or SPC 112	Composition II or Composition II: Technical Writing or 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 165	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
CHM 175	General Chemistry II	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	
BIO 114	General Biology IA	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	
EGR 180	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
EGR 280	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2	
EGR 380	Mechanics of Deformable Bodies	3	CIV ENG 2210	Mechanics of Materials	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.						
LIT 140 or LIT 141 or LIT 110 or LIT 111 or HIS 151* or HIS 152* or ART 101 or MUS 100	British Literature I or British Literature II or American Literature to Mid-1800's or American Literature since Mid-1800's or US History to 1877* or US History since 1877* or Art Appreciation or Music Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present 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						
HIS 119*	Western Civilization III: The Modern Period* <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 101 or PHI 110 or POL 111* or PSY 111 or ECN 130 or ECN 120 or Foreign Language	Intro to Philosophy or Intro to Logic or American National Government* or Intro to 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		39	Group 2 Major Requirements		37	
Group 1 Core Requirements		31	Group 1 Core Requirements		27	
Total Hours		70			Total Hours*	64
<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

Eastern Iowa Community Colleges			Semester	Missouri S&T		
EGR 160	Engineering I	3	MECH ENG 1720	Intro to Engineering Design	3	
ENG 108	Composition II: Technical Writing	3	ENGLISH 3560	Technical Writing <i>Applies to degree as Gen Ed Communication requirement.</i>	3	
CHM 165	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
CIS 189 or CIS 161	Python or C++ or	3	COMP SCI 1500 or COMP SCI 1971, 1981	Computational Problem Solving or Intro to Programming Methodology and Lab	3	
EGR 180	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
EGR 280	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2	
EGR 380	Mechanics of Deformable Bodies	3	CIV ENG 2210	Mechanics of Materials	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.						
LIT 140 or LIT 141 or LIT 110 or LIT 111 or HIS 151* or HIS 152* or ART 101 or MUS 100	British Literature I or British Literature II or American Literature to Mid-1800's or American Literature since Mid-1800's or US History to 1877* or US History since 1877* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present 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.						
HIS 117 or HIS 119* or GEO 121 or PHI 101 or PHI 110 or POL 111* or PSY 111 or ECN 130 or ECN 120 or Foreign Language	Western Civilization I: Ancient and Medieval or Western Civilization III: The Modern Period* or World Regional Geography or Intro to Philosophy or Intro to Logic or American National Government* or Intro to 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		37	Group 2 Major Requirements		37	
Group 1 Core Requirements		31	Group 1 Core Requirements		27	
Total Hours		68	Total Hours*		64	
*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

Eastern Iowa Community Colleges		Semester	Missouri S&T		
EGR 160	Engineering I	3	MECH ENG 1720	Intro to Engineering Design	3
ENG 106 or ENG 10 8or SPC 112	Composition II or Composition II: Technical Writing or 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 165	General Chemistry I	4	CHEM 1310*, 1319	General Chemistry I and Lab <small>*CHEM 1310 will be substituted for CHEM 1305.</small>	5
CIS 161	C++	3	COMP SCI 1971, 1981	Intro to Programming Method and Lab (C++)	3
EGR 285	Intro to Electrical Science	4	ELEC ENG 2800	Electrical Circuits	3
EGR 180	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 280	Dynamics	3	MECH 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
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.					
LIT 140 or LIT 141 or LIT 110 or LIT 111 or HIS 151* or HIS 152* or ART 101 or MUS 100	British Literature I or British Literature II or American Literature to Mid-1800's or American Literature since Mid-1800's or US History to 1877* or US History since 1877* or Art Appreciation or Music Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present 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.					
HIS 117 or HIS 119* or GEO 121 or PHI 101 or PHI 110 or POL 111* or PSY 111 or ECN 130 or ECN 120 or Foreign Language	Western Civilization I: Ancient and Medieval or Western Civilization III: The Modern Period* or World Regional Geography or Intro to Philosophy or Intro to Logic or American National Government* or Intro to 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		44	Group 2 Major Requirements		44
Group 1 Core Requirements		31	Group 1 Core Requirements		27
Total Hours		75			Total Hours*
*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 Colleges			Semester	Missouri S&T		
EGR 160	Engineering I	3	MECH ENG 1720	Intro to Engineering Design	3	
ENG 106 or ENG 10 8or SPC 112	Composition II or Composition II: Technical Writing or 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	
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 165	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
CHM 175	General Chemistry II	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	
CHM 261 or EGR 285	Organic Chemistry I or Intro to Electrical Science	4	CHEM 2210 or EE 2800	Organic Chemistry I (3) or Electrical Circuits (3) <small>Not specifically required for the degree but will satisfy out-of-department technical elective requirement</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.						
LIT 140 or LIT 141 or LIT 110 or LIT 111 or HIS 151* or HIS 152* or ART 101 or MUS 100	British Literature I or British Literature II or American Literature to Mid-1800's or American Literature since Mid-1800's or US History to 1877* or US History since 1877* or Art Appreciation or Music Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present 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.						
HIS 117 or HIS 119* or GEO 121 or PHI 101 or PHI 110 or POL 111* or PSY 111 or ECN 130 or ECN 120 or Foreign Language	Western Civilization I: Ancient and Medieval or Western Civilization III: The Modern Period* or World Regional Geography or Intro to Philosophy or Intro to Logic or American National Government* or Intro to 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	
Maximum Free Electives		3	Maximum Free Electives		3	
Group 2 Major Requirements		42	Group 2 Major Requirements		41	
Group 1 Core Requirements		31	Group 1 Core Requirements		27	
Total Hours		73			Total Hours*	
<small>*S&T advisor permission is required to transfer more than 68 credits toward the S&T Metallurgical Engineering degree.</small>						

Mining Engineering Group 2 Major Requirements

Eastern Iowa Community Colleges		Semester	Missouri S&T			
EGR 160	Engineering I	3	MECH ENG 1720	Intro to Engineering Design	3	
ENG 106 or ENG 10 8or SPC 112	Composition II or Composition II: Technical Writing or 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 165	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
EGR 180	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
EGR 280	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2	
EGR 290	Thermodynamics	3	MECH ENG 2519*	Thermodynamics* <small>*Will be substituted for MECH ENG 2527.</small>	3	
EGR 380	Mechanics of Deformable Bodies	3	CIV ENG 2210	Mechanics of Materials	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.						
LIT 140 or LIT 141 or LIT 110 or LIT 111 or HIS 151* or HIS 152* or ART 101 or MUS 100	British Literature I or British Literature II or American Literature to Mid-1800's or American Literature since Mid-1800's or US History to 1877* or US History since 1877* or Art Appreciation or Music Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present 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.						
HIS 117 or HIS 119* or GEO 121 or PHI 101 or PHI 110 or POL 111* or PSY 111 or ECN 130 or ECN 120 or Foreign Language	Western Civilization I: Ancient and Medieval or Western Civilization III: The Modern Period* or World Regional Geography or Intro to Philosophy or Intro to Logic or American National Government* or Intro to 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	
No free electives applied to the degree.		0	Maximum Free Electives		0	
Group 2 Major Requirements		34	Group 2 Major Requirements		34	
Group 1 Core Requirements		31	Group 1 Core Requirements		27	
Total Hours		65			Total Hours*	61
<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

Eastern Iowa Community Colleges		Semester	Missouri S&T			
EGR 160	Engineering I	3	MECH ENG 1720	Intro to Engineering Design	3	
ENG 106 or ENG 10 8or SPC 112	Composition II or Composition II: Technical Writing or 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 165	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
CIS 161	C++	3	COMP SCI 1971, 1981	Intro to Programming Method and Lab (C++) (3)	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	
GR 285	Intro to Electrical Science	4	ELEC ENG 2800	Electrical Circuits	3	
EGR 290	Thermodynamics	3	MECH ENG 2519	Thermodynamics	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.						
LIT 140 or LIT 141 or LIT 110 or LIT 111 or HIS 151* or HIS 152* or ART 101 or MUS 100	British Literature I or British Literature II or American Literature to Mid-1800's or American Literature since Mid-1800's or US History to 1877* or US History since 1877* or Art Appreciation or Music Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present 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.						
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	
HIS 117 or HIS 119* or GEO 121 or PHI 101 or PHI 110 or POL 111* or PSY 111 or Foreign Language	Western Civilization I: Ancient and Medieval or Western Civilization III: The Modern Period* or World Regional Geography or Intro to Philosophy or Intro to Logic or American National Government* or Intro to 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		41	Group 2 Major Requirements		41	
Group 1 Core Requirements		31	Group 1 Core Requirements		27	
Total Hours		72			Total Hours*	68
<small>*S&T advisor permission is required to transfer more than 69 credits toward the S&T Nuclear Engineering degree.</small>						

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

Petroleum Engineering Group 2 Major Requirements

Eastern Iowa Community Colleges			Semester		Missouri S&T	
ENG 106 or ENG 10 8or SPC 112	Composition II or Composition II: Technical Writing or 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 165	General Chemistry I	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
CIS 189	Python	3	COMP SCI 1500	Computational Problem Solving	3	
EGR 180	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
EGR 280	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2	
EGR 380	Mechanics of Deformable Bodies	3	CIV ENG 2210	Mechanics of Materials	3	
EGR 290	Thermodynamics	3	MECH ENG 2519*	Thermodynamics* <small>*Will be substituted for MECH ENG 2527.</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.						
LIT 140 or LIT 141 or LIT 110 or LIT 111 or HIS 151* or HIS 152* or ART 101 or MUS 100	British Literature I or British Literature II or American Literature to Mid-1800's or American Literature since Mid-1800's or US History to 1877* or US History since 1877* or Art Appreciation or Music Appreciation <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or American Literature: 1865 to Present 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.						
HIS 117 or HIS 119* or GEO 121 or PHI 101 or PHI 110 or POL 111* or PSY 111 or ECN 130 or ECN 120 or Foreign Language	Western Civilization I: Ancient and Medieval or Western Civilization III: The Modern Period* or World Regional Geography or Intro to Philosophy or Intro to Logic or American National Government* or Intro to 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		37	Group 2 Major Requirements		37	
Group 1 Core Requirements		31	Group 1 Core Requirements		27	
Total Hours		68	Total Hours*		64	
<small>*S&T advisor permission is required to transfer more than 69 credits toward the S&T Petroleum Engineering degree.</small>						