St. Charles 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.

	St. Charles Community Colleges	<u>s</u>	Semester .	Missouri S&T	
MAT 180	Calculus and Analytic Geometry I	5	MATH 1214	Calculus I Grade of C or better is required.	4
MAT 230	Calculus and Analytic Geometry II	5	MATH 1215	Calculus II Grade of C or better is required.	4
MAT 240	Calculus and Analytic Geometry III	5	MATH 2222	Calculus III Grade of C or better is required.	4
MAT 250	Differential Equations	3	MATH 3304	Elementary Differential Equations	3
PHY 250	Engineering Physics I	5	PHYSICS 1135	Engineering Physics I Grade of C or better is required.	4
PHY 251	Engineering Physics II	5	PHYSICS 2135	Engineering Physics II Grade of C or better is required.	4
EGR 100	Intro to Engineering	1	FR ENG 1100	Study and Careers in Engineering and Computing	1
ENG 101	English Composition I	3	ENGLISH 1120	Exposition and Argumentation	3
		Total Hours 22			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 Engi	neerinç	g Grou	p 2 Major F	Requirements	
EOD 404	St. Charles Community Colleges	3	Semester		Missouri S&T	0
EGR 104 ENG 102 or ENG 115 or COM 106	Engineering Design English Composition II or Technical Writing or Public Speaking	3		MECH ENG 1720 ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Intro to Engineering Design Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHM 115	General Chemistry I and Lab	5		CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
CPT 182 EGR 220 EGR 170	Beginning Programming in C++ Electrical Circuits Engineering Mechanics-Statics	3 3 3		CS 1570 ELEC ENG 2800 CIV ENG 2200	Intro to Programming (C++) Electrical Circuits Engineering Mechanics-Statics	3 3 3
EGR 210 MAT 242	Engineering Mechanics-Dynamics Introductory Linear Algebra	3		AERO ENG 2360 MATH 3108	Dynamics Linear Algebra I	3
PHL 160 or BUS 105	Ethics or Business Ethics or other engineering, business, bio, social ethics approved by advisor	3		PHILOS 1130 or PHILOS 3235	Satisfies the Advanced Math/Comp Sci elective requirement. How Should I Live? An Introduction to Ethics or Business Ethics or other engineering, business, bio, social ethics approved by advisor	3
	From the op 6 hours Huma	tions listed in e anities and Fine ioral and Social RY 1200, 1300,	each group be Arts from at le Sciences from 1310, or POL	•	nclude es and ciplines.	
	Sele		inities and Fi m at least two	ne Arts specific disciplines.		
LIT 250 or LIT 260 or LIT 210 or LIT 220 or LIT 272 or HIS 101* or HIS 102* or ART 1001 or MUS 111 or THE 122	English Literature Before 1800 or English Literature After 1800 or American Literature From Beginnings-1865 or American Literature From 1865-Present or World Literature-Ancient World thru Renaissance or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Intro to the Theatre *Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300° or HISTORY 1310° or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1805 to Present or World Literature: 1865 to Present or World Literature: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change *Satisfies the State of Missouri government requirement.	6
	Sels		ral and Socia	Il Sciences specific disciplines.		
HIS 145 or HIS 146* or GEO 110 or PHL 101 or PHL 102 or POL 101* or PSY 101 or ECO 120 or ECO 110 or Foreign Language	Western Civilizations Ancient and Medieval or Western Civilizations Modern European* or Geography for Educators or Intro to Philosophy or Intro to Logic or American 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 PHIL 1105 or PHIL 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 *statisfies the State of Missouri government requirement.	6
			Arts, and So Select 3 hour	ocial Sciences		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.			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. Group 2 Major Requirements Group 1 Core Requirements Tot	0 44 32 tal Hours 76			Maximum Free Electives Group 2 Major Requirements Group 1 Core Requirements Total Hours* *S&T advisor permission is required to transfer more than 68 credits toward the S&T Aerospace Engineering degree.	0 44 27 71

	Architectural Engi	neeri	ng	Group 2 Major F	Requirements	
	St. Charles Community Colleges		Se	emester	Missouri S&T	
EGR 104	Engineering Design	3	_	MECH ENG 1720	Intro to Engineering Design	3
ENG 102 or ENG 115 or COM 106	English Composition II or Technical Writing or Public Speaking	3		ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHM 115	General Chemistry I and Lab	5		CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	
EGR 170	Engineering Mechanics-Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 210	Engineering Mechanics-Dynamics	3		MECH ENG 2350	Engineering Mechanics-Dynamics	2
PHY 125	Intro to Physical Geology	3		GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
	From the option of the following Human	ons listed in hities and Fi ral and Soc	n each ne Arts ial Scie	ences General Education Require group below, select 12 hours to inclie from at least two specific disciplines ences from at least two specific disciplines, o, or POL SCI 1200 to satisfy the SI	ude and ines.	
		Hui	naniti	es and Fine Arts		
	Selec	t 6 hours f	rom at	least two specific disciplines.		
LIT 250 or LIT 260 or LIT 210 or LIT 220 or LIT 272 or HIS 101* or HIS 102* or ART 1001 or MUS 111 or THE 122	English Literature Before 1800 or English Literature After 1800 or American Literature From Beginnings-1865 or American Literature From 1865-Present or World Literature-Ancient World thru Renaissance or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Intro to the Theatre "Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change *Satisfies the State of Missouri government requirement.	6
				nd Social Sciences		
		n at least t	wo spe	ecific disciplines to include HISTOR		
HIS 146*	Western Civ: Modern European Heritage* *Satisfies the State of Missouri Government requirement.	3		HISTORY 1200*	Modern Western Civilization* *Satisfies the State of Missouri Government requirement.	3
PHL 101 or PHL 102 or POL 101* or PSY 101 or ECO 120 or ECO 110 or Foreign Language	Intro to Philosophy or Intro to Logic or American 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		PHIL 1105 or PHIL 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 *Satisfies the State of Missouri government requirement.	3
	No free electives applied to the degree.	0			Maximum Free Electives	0
	Group 2 Major Requirements	3:			Group 2 Major Requirements	26
	Group 1 Core Requirements Tota	3: I Hours 6			Group 1 Core Requirements Total Hours *S&T advisor permission is required to transfer more than 69 credits toward the S&T Architectural Engineering degree.	27 * 53

			ering-Biomanuf or Requirement		
	St. Charles Community Colleges	9	Semester	Missouri S&T	
0014 400	Public Speaking	3	SP&MS 1185	Principles of Speech	3
COM 106 CHM 115	General Chemistry I and Lab	5	CHEM 1310, 1319	Applies to degree as Gen Ed Communication requirement. General Chemistry I and Lab	5
CHM 116	General Chemistry II and Lab	5	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 240 and CHM 241 and CHM 243	Organic Chemistry I and Organic Chemistry II and Organic Chemistry Lab	8	CHEM 2210, 2219 and CHM 2220,2229*	Organic Chemistry I and Lab* Organic Chemistry II and Lab* CHM 2220 and 2229 apply to the degree as a Track Elective. BIO SCI 1113, 1219 or BIO SCI 2223 are also Track Elective Organic	8
CPT 135 or CPT 185 or CPT 189 or CPT 182*	Computer Science I with Python (4) or Programming in C Sharp (3) or Java Programming (3) or Beginning Programming in C++*	3	CS 1500 or CS 1570*	Computational Problem Solving or Intro to Programming (C++)* "Course will be substituted for CS 1500.	3
	6 hours Hu	manities and Fine A avioral and Social S	ch group below, select 12 hours to in tts from at least two specific discipline ciences from at least two specific disc 310, or POL SCI 1200 to satisfy the	es and ciplines.	
	S		ties and Fine Arts at least two specific disciplines.		
LIT 250 or LIT 260 or LIT 210 or LIT 220 or LIT 272 or HIS 101* or HIS 102* or ART 1001 or MUS 111 or THE 122	English Literature Before 1800 or English Literature After 1800 or American Literature From Beginnings-1865 or American Literature From 1865-Present or World Literature-Ancient World thru Renaissance or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Intro to the Theatre *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300° or HISTORY 1310° or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change "Satisfies the State of Missouri government requirement.	6
			and Social Sciences		
HIS 145 or HIS 146° or GEO 110 or POL 101° or PSY 101 or ECO 120 or ECO 110 or Foreign Language	Western Civilizations Ancient and Medieval or Western Civilizations Modern European* or Geography for Educators or American 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	elect 3 hours. 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
			rts, and Social Sciences SH 3560 required.		
ENG 115	Technical Writing	3	ENGLISH 3560	Technical Writing	3
	No free electives applied to the degree. Group 2 Major Requirements Group 1 Core Requirements	0 36 32 Total Hours 68		Maximum Free Electives Group 2 Major Requirements Group 1 Core Requirements Total Hours* *S&T advisor permission is required to transfer more than 69 credit hours toward the degree.	0 34 27 61

	Biomed	ical End	jineering-Bior	naterials	
			jor Requirem		
	St. Charles Community Colleges		Semester	Missouri S&T	
0014.400	Public Speaking	3	SP&MS 1185	Principles of Speech	3
COM 106 CHM 115	General Chemistry I and Lab	5	CHEM 1310, 13	Applies to degree as Gen Ed Communication requirement. 19 General Chemistry I and Lab	5
	The state of the s	5		Constal Chamistan II (2) and Qualitative Analysis (2)	3
CHM 116	General Chemistry II and Lab	5	CHEM 1320, 15	*CHEM 1510 is not a degree requirement, transfers as general elective credit.	3
CHM 240 and CHM 241 and CHM 243	Organic Chemistry I and Organic Chemistry II and Organic Chemistry Lab	8	CHEM 2210, 22 CHEM 2220, 22		8
BIO 150	General Biology: Cells to Organisms	5	BIO SCI 1113*,	1219* General Biology* and Lab* *Applies to degree as Track Elective (Non-engineering).	4
CPT 135 or CPT 185 or CPT 189 or CPT 182*	Computer Science I with Python (4) or Programming in C Sharp (3) or Java Programming (3) or Beginning Programming in C++*	3	CS 1500 or CS 1570*	Computational Problem Solving or Intro to Programming (C++)* *Course will be substituted for CS 1500.	3
EGR 170	Engineering Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 220	Electrical Circuits	3	ELEC ENG 210	Circuits I* "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).	3
LIT 250 or	Se English Literature Before 1800 or	Huma	nities and Fine Arts n at least two specific discipli ENGLISH 1211	or British Literature I: The Beginnings to 1800 or	
LIT 260 or LIT 210 or LIT 220 or LIT 272 or HIS 101* or HIS 102* or ART 1001 or MUS 111 or	English Literature Before 1800 or English Literature After 1800 or American Literature From Beginnings-1865 or American Literature From 1865-Present or World Literature-Ancient World thru Renaissance or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or	elect 6 hours fron	ENGLISH 1211 ENGLISH 1212 ENGLISH 1222 ENGLISH 1222 ENGLISH 1231 HISTORY 1300 HISTORY 1310 ART 1180 or MUSIC 1150 or	or British Literature I: The Beginnings to 1800 or or or British Literature II: 1800 to Present or American Literature: 1600 to 1865 or or American Literature: 1865 to Present or or World Literature I: Beginnings to the Renaissance or or American History to 1877* or or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or	6
THE 122	Intro to the Theatre *Satisfies the State of Missouri government requirement.		THEATRE 1150	Theatre for Social Change *Satisfies the State of Missouri government requirement.	
	Catalina the Gate of missean got of miss. Equipment		al and Social Sciences	Catalian the cate of missear government requirement.	
HIS 145 or HIS 146* or GEO 110 or POL 101* or PSY 101 or ECO 120 or ECO 110 or Foreign Language	Western Civilizations Ancient and Medieval or Western Civilizations Modern European* or Geography for Educators or American 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.	Se 3	lect 3 hours from. HISTORY 1100 HISTORY 1200 HISTORY 2110 POL SCI 1200 PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Languar	for Modern Western Civilization* or or World Regional Geography or or American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or	3
ENO 445	To de la Militira	ENG	Arts, and Social Sciences LISH 3560 required.	T. A. S. W. W.	•
ENG 115	Technical Writing	3	ENGLISH 3560	Technical Writing	3
	No free electives applied to the degree. Group 2 Major Requirements Group 1 Core Requirements	0 47 32 otal Hours 79		Maximum Free Electives Group 2 Major Requirements Group 1 Core Requirements Total Ho *S&T advisor permission is required to transfer more than 69 credits toward the S&T Biomedical Engineering degree.	0 44 27 urs* 71

	Ceramic Engin	eering	Group	2 Major Re	quirements	
	St. Charles Community Colleges		Semester		Missouri S&T	
EGR 104	Engineering Design	3		MECH ENG 1720	Intro to Engineering Design	3
ENG 102 or ENG 115 or COM 106	English Composition II or Technical Writing or Public Speaking	3		ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
EGR 170	Engineering Mechanics-Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
CHM 115	General Chemistry I and Lab	5		CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 116	General Chemistry II and Lab	5		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 240	Organic Chemistry I	3		CHEM 2210	Organic Chemistry I Satisfies the advanced chemistry elective requirement.	3
	From the op 6 hours Hum	tions listed in anities and Find ioral and Socia	each group be e Arts from at le al Sciences from	neral Education Requi low, select 15 hours to inc east two specific disciplines at least two specific disciplines SCI 1200 to satisfy the S	clude s and olines.	
		Hum	anities and F	ne Arts		
=		ect 6 hours fro	om at least two	specific disciplines.		
LIT 250 or LIT 260 or LIT 210 or LIT 220 or LIT 272 or HIS 101* or HIS 102* or ART 1001 or MUS 111 or THE 122	English Literature Before 1800 or English Literature After 1800 or American Literature From Beginnings-1865 or American Literature From 1865-Present or World Literature-Ancient World thru Renaissance or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Intro to the Theatre *Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change *Satisfies the State of Missouri government requirement.	6
			oral and Socia			
		ect 6 hours fro	om at least two	specific disciplines.		
HIS 145 or HIS 146° or GEO 110 or PHL 101 or PHL 102 or POL 101° or PSY 101 or ECO 120 or ECO 110 or Foreign Language	Western Civilizations Ancient and Medieval or Western Civilizations Modern European* or Geography for Educators or Intro to Philosophy or Intro to Logic or American 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 PHIL 1105 or PHIL 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	s, Arts, and S o Select 3 hour	ocial Sciences s.		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	/, art, 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 Group 1 Core Requirements To	37 32 tal Hours 69			Group 2 Major Requirements Group 1 Core Requirements Total Hours* *S&T advisor permission is required to transfer more than 68 credits toward the S&T Ceramic Engineering degree.	35 27 62

	Che	emica	I Engi	neering or		
	Chemical Engineering	g - Bi	ochen	nical Engine	ering Emphasis	
		_		equirements	· · · · · ·	
EGR 104	St. Charles Community Colleges Engineering Design	3	Semester		Missouri S&T Intro to Engineering Design	3
COM 106	Public Speaking	3		SP&MS 1185	Principles of Speech	3
CHM 115	General Chemistry I and Lab	5		CHEM 1310, 1319	Applies to degree as Gen Ed Communication requirement. General Chemistry I and Lab	5
CHM 116	General Chemistry II and Lab	5		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 240 and CHM 241 and CHM 243	Organic Chemistry I and Organic Chemistry II and Organic Chemistry Lab	8		CHEM 2210, 2219 and CHEM 2220,2229	Organic Chemistry II and Lab and Organic Chemistry II and Lab CHEM 2210 is a degree requirement. CHEM 2219 and 2220 will partially satisfy the 9- credit-hour science elective requirement (below). CHEM 2229 transfers as general elective credit.	8
CHEM 222 or BIO 246	Quantitative Analysis or Microbiology	4		CHEM 2510 or BIO SCI 3313, 3319	Analytical Chemistry (4) or Microbiology and Lab (5) Will satisfy science elective requirement. Select from these options and CHEM 2219 and 2220 (above) no total 9 hours.	5
CPT 135 or CPT 185 or CPT 189 or CPT 182*	Computer Science I with Python (4) or Programming in C Sharp (3) or Java Programming (3) or Beginning Programming in C++*	3		CS 1500 or CS 1570*	Computational Problem Solving or Intro to Programming (C++)* *Course will be substituted for CS 1500.	3
	From the option 6 hours Humanit 6 hours Behaviora *At least one course must be selected from HISTORY	ns listed in e ies and Fine al and Social 1200, 1300, Huma	each group be Arts from at le Sciences fron , 1310, or POL anities and F	•	lude and lines.	
LIT 250 or LIT 260 or LIT 210 or LIT 220 or LIT 272 or HIS 101* or HIS 102* or ART 1001 or MUS 111 or THE 122	English Literature Before 1800 or English Literature After 1800 or American Literature From Beginnings-1865 or American Literature From 1865-Present or World Literature-Ancient World thru Renaissance or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Intro to the Theatre *Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change *Satisfies the State of Missouri government requirement.	6
	Select		ral and Socia m at least two	specific disciplines.		
HIS 145 or HIS 146° or GEO 110 or PHL 101 or PHL 102 or POL 101° or PSY 101 or ECO 120 or ECO 110 or Foreign Language	Western Civilizations Ancient and Medieval or Western Civilizations Modern European* or Geography for Educators or Intro to Philosophy or Intro to Logic or American 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 HIL 1105 or PHIL 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
	Н		, Arts, and So	ocial Sciences		
ENG 115	Technical Writing	3	DDCC 11511	equirea. ENGLISH 3560	Technical Writing	3
	No free electives applied to the degree. Group 2 Major Requirements Group 1 Core Requirements Total I	0 46 32 Hours 78			Maximum Free Electives Group 2 Major Requirements Group 1 Core Requirements Total Hours* "\$&T advisor permission is required to transfer more than 68 credits toward the \$&T Chemical Engineering degree.	0 45 27 72

	Civil Engineer	ing G	roup 2 N	lajor Requi	irements	
	St. Charles Community Colleges		Semester		Missouri S&T	
EGR 104	Engineering Design	3	ME	ECH ENG 1720	Intro to Engineering Design	3
ENG 102 or ENG 115 or COM 106	English Composition II or Technical Writing or Public Speaking	3	EN	NGLISH 1160 or NGLISH 3560 or PMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHM 115	General Chemistry I and Lab	5	Ch	HEM 1310, 1319	General Chemistry I and Lab	5
PHY 125	Intro to Physical Geology	3		EOLOGY 1110 EO ENG 1150)	Physical and Environmental Geology	3
EGR 170	Engineering Mechanics-Statics	3	Cl	V ENG 2200	Engineering Mechanics-Statics	3
EGR 210	Engineering Mechanics-Dynamics	3	ME	ECH ENG 2350	Engineering Mechanics-Dynamics	2
	6 hours Humani	ties and Find al and Socia ' 1200, 1300	e Arts from at least Il Sciences from at		nd nes.	
	Select		om at least two sp			
LIT 250 or LIT 260 or LIT 210 or LIT 220 or LIT 272 or HIS 101* or HIS 102* or ART 1001 or MUS 111 or THE 122	English Literature Before 1800 or English Literature After 1800 or American Literature From Beginnings-1865 or American Literature From 1865-Present or World Literature-Ancient World thru Renaissance or US History to 1877* or US History Since 1877* or Art Appreciation or Intro to the Theatre "Satisfies the State of Missouri government requirement.	6	EN EN EN HI HI AF	NGLISH 1211 or NGLISH 1212 or NGLISH 1221 or NGLISH 1222 or NGLISH 1223 or NGLISH 1231 or STORY 1300* or STORY 1310* or RT 1180 or JSIC 1150 or HEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1800 to 1865 or American Literature: 1805 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change "Satisfies the State of Missouri government requirement.	6
			oral and Social S			
HIS 145 or HIS 146* or GEO 110 or PHL 101 or PHL 102 or POL 101* or ECO 120 or ECO 110 or Foreign Language	Western Civilizations Ancient and Medieval or Western Civilizations Modern European* or Geography for Educators or Intro to Philosophy or Intro to Logic or American 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	HI HI PH PC PS EC EC Fo	STORY 1100 or STORY 1200* or STORY 2110 or III. 1115 or OL SCI 1200* or SYCH 1101 or CON 1100 or CON 1200 or oreign 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	s, Arts, and Social Select 3 hours.	al Sciences		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, a music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	ırt, 3	HA	ASS 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 Group 1 Core Requirements Total	35 32 Hours 67			Group 2 Major Requirements Group 1 Core Requirements Total Hours' *S&T advisor permission is required to transfer more than 69 credits toward the S&T Civil Engineering degree.	34 27 * 61

	Computer Engine	erinç	g Grou	p 2 Major R	equirements	
	St. Charles Community Colleges		Semeste		Missouri S&T	
0014400	Public Speaking	3		SPMS 1185	Principles of Speech	3
COM 106 CHM 115	General Chemistry I and Lab	5		CHEM 1310, 1319	Applies to degree as Gen Ed Communication requirement. General Chemistry I and Lab	5
CPT 135 or	Computer Science I with Python (4) or	, i		0.112.11.1010, 1010	Contract Charmony Faire Las	Ŭ
CPT 185 or	Programming in C Sharp (3) or	3		CS 1500	Computational Problem Solving	3
CPT 189	Java Programming (3)					
CPT 182	Beginning Programming in C++	3		COMP SCI 1570	Intro to Programming (C++)	3
CPT 281	Intro to Data Structures with C++	3		COMP SCI 1575	Data Structures Engineering Mechanics-Statics (3) or	3
EGR 170 or	Engineering Mechanics-Statics or	_		CIV ENG 2200 or	Engineering Mechanics-Statics (3) or	_
EGR 210 or	Engineering Mechanics-Dynamics or	3		MECH ENG 2350 or	Organic Chemistry I (3)	3
CHEM 240	Organic Chemistry I			CHEM 2210	Satisfies a required engineering/science elective.	
EGR 220	Electrical Circuits	3		EE 2100*	Circuits I*	3
LGIV 220	Liectrical Circuits	3		LL 2100	*A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for ELEC ENG 2100.	J
MAT 242	Introductory Linear Algebra	3		MATH 3108	Linear Algebra	3
	From the option 6 hours Humanit	ns listed in ies and Fin al and Socia 1200, 1300	each group be e Arts from at I al Sciences fron 0, 1310, or PO		clude s and plines.	
			anities and F			
LITOSO		6 hours fro	om at least two	specific disciplines.	Dallich Literature I. The Desire in the 4000 cm	
LIT 250 or LIT 260 or	English Literature Before 1800 or English Literature After 1800 or			ENGLISH 1211 or ENGLISH 1212 or	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present	
LIT 210 or	American Literature From Beginnings-1865 or			ENGLISH 1221 or	American Literature: 1600 to 1865 or	
LIT 220 or	American Literature From 1865-Present or			ENGLISH 1222 or	American Literature: 1865 to Present or	
LIT 272 or	World Literature-Ancient World thru Renaissance or			ENGLISH 1231 or	World Literature I: Beginnings to the Renaissance or	
HIS 101* or	US History to 1877* or	6		HISTORY 1300* or	American History to 1877* or	6
HIS 102* or	US History Since 1877* or			HISTORY 1310* or	American History Since 1877* or	
ART 1001 or MUS 111 or	Art Appreciation or Music Appreciation or			ART 1180 or MUSIC 1150 or	Art Appreciation or Music Understanding and Appreciation or	
THE 122	Intro to the Theatre			THEATRE 1150	Theatre for Social Change	
	*Satisfies the State of Missouri government requirement.				*Satisfies the State of Missouri government requirement.	
			oral and Soci			
		6 hours from	om at least tw	specific disciplines.		
HIS 145 or	Western Civilizations Ancient and Medieval or			HISTORY 1100 or	Early Western Civilization or	
HIS 146* or GEO 110 or	Western Civilizations Modern European* or Geography for Educators or			HISTORY 1200* or HISTORY 2110 or	Modern Western Civilization* or	
PHL 101 or	Intro to Philosophy or			PHIL 1105 or	World Regional Geography or Self and World: Intro to Philosophy or	
PHL 102 or	Intro to Logic or			PHIL 1115 or	Logic and Reasoning: An Introduction or	
POL 101* or	American Government* or	6		POL SCI 1200* or	American Government*or	6
PSY 101 or	Intro to Psychology or			PSYCH 1101 or	General Psychology or	
ECO 120 or	Principles of Microeconomics or			ECON 1100 or	Principles of Microeconomics or	
ECO 110 or	Principles of Macroeconomics or			ECON 1200 or	Principles of Macroeconomics or	
Foreign Language	Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.			Foreign Language	Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	
		lumanities	s, Arts, and S Select 3 hou	ocial Sciences		
ENG 102 or	English Composition II or		35.551 0 1100	ENGLISH 1160 or	Writing and Research or	
ENG 115	Technical Writing	3		ENGLISH 3560	Technical Writing	3
Electives	Maximum Free Electives	3		Electives	Maximum Free Electives	3
	Group 2 Major Requirements	44		5001700	Group 2 Major Requirements	44
	Group 1 Core Requirements	32			Group 1 Core Requirements	27
	Total I	Hours 76			Total Hours* *S&T advisor permission is required to transfer more than 68 credits toward the S&T Computer Engineering degree.	71

	Electrical Engineeri	ng	Group	2 Major Rec		
	St. Charles Community Colleges		Semester		Missouri S&T	
EGR 104	Engineering Design	3	<u>oemester</u>	MECH ENG 1720	Intro to Engineering Design	3
		3		SPMS 1185	Principles of Speech	3
COM 106	Public Speaking				Applies to degree as Gen Ed Communication requirement.	
CHM 115	General Chemistry I and Lab	5		CHEM 1310, 1319	General Chemistry I and Lab	5
CPT 135 or CPT 185 or CPT 189	Computer Science I with Python (4) or Programming in C Sharp (3) or Java Programming (3)	3		CS 1500	Computational Problem Solving	3
EGR 170 and EGR 210 and BOTH of the courses above or ONE of the courses below. OR CHEM 240	Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (3) 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 (3) Both courses above combined or any one of the following courses will satisfy a required engineering science elective. OR Organic Chemistry I (4) Three hours will apply to the engineering science elective requirement; any additional hours will apply to degree totals as general elective credit.	3
EGR 220	Electrical Circuits	3		EE 2100*	Circuits I* *A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for ELEC ENG 2100.	4
MAT 242	Introductory Linear Algebra	3		MATH 3108	Linear Algebra	3
	From the options list 6 hours Humanities ar	ed in e d Fine Social , 1300	each group be Arts from at le Sciences from , 1310, or POL		le nd es.	
	Salaat 6 hay		anities and F	ne Arts specific disciplines.		
LIT 250 or LIT 260 or LIT 210 or LIT 220 or LIT 272 or HIS 101* or HIS 102* or ART 1001 or MUS 111 or THE 122	English Literature Before 1800 or English Literature After 1800 or American Literature From Beginnings-1865 or American Literature From 1865-Present or World Literature-Ancient World thru Renaissance or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Intro to the Theatre **Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1223 or HISTORY 1300° or HISTORY 1310° or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1800 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change	6
		havio	ral and Socia	I Sciences		
	Select 6 hou	ırs fro	m at least two	specific disciplines.		
HIS 145 or HIS 146* or GEO 110 or PHL 101 or PHL 102 or POL 101* or PSY 101 or ECO 120 or ECO 110 or Foreign Language	Western Civilizations Ancient and Medieval or Western Civilizations Modern European* or Geography for Educators or Intro to Philosophy or Intro to Logic or American 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 PHIL 1105 or PHIL 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.	6
	Huma	nities		ocial Sciences		
ENG 102 or ENG 115	English Composition II or Technical Writing	3	Select 3 hour	S. 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	45
	Group 1 Core Requirements Total Hours	32 73			Group 1 Core Requirements Total Hours* *S&T advisor permission is required to transfer more than 68 credits toward the S&T Electrical Engineering degree.	27 72

	Engineering Ma	nagemen	t Group 2 Major	Requirements	
	St. Charles Community Colleges		Semester	Missouri S&T	
EGR 104	Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3
LOIT 104			SPMS 1185	Principles of Speech	
COM 106	Public Speaking	3		Applies to degree as Gen Ed Communication requirement.	3
CHM 115	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CPT 182	Beginning Programming in C++	3	CS 1570	Intro to Programming (C++)	3
BUS 201 BUS 204	Principles of Management Total Quality Operations Management	3	ENG MGT 2110 ENG MGT 3310	Managing Engineering and Technology Operations and Production Management	3
EGR 220	Electrical Circuits	3	ELEC ENG 2800	Electrical Circuits	3
EGR 220 EGR 170	Engineering Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 170 EGR 210	Engineering Mechanics-Statics Engineering Mechanics-Dynamics	3	MECH ENG 2350	Engineering Mechanics-Statics Engineering Mechanics-Dynamics	2
LOIVEIU	, , , , , , , , , , , , , , , , , , ,		ciences General Education Requ		
	6 hours H	lumanities and Fine Al havioral and Social So STORY 1200, 1300, 1	ch group below, select 15 hours to in rts from at least two specific discipline ciences from at least two specific disc 310, or POL SCI 1200 to satisfy the tites and Fine Arts	s and iplines.	
			at least two specific disciplines.		
LIT 250 or LIT 260 or LIT 210 or LIT 220 or LIT 272 or HIS 102* or ART 1001 or MUS 111 or	English Literature Before 1800 or English Literature After 1800 or American Literature From Beginnings-1865 or American Literature From 1865-Present or World Literature-Ancient World thru Renaissance o US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or	r 6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or	6
THE 122	Intro to the Theatre *Satisfies the State of Missouri government requirement.		THEATRE 1150	Theatre for Social Change *Satisfies the State of Missouri government requirement.	
	0-1+0-1		and Social Sciences	211.4404	
			specific disciplines to include PSYC		
PSY 101	Introduction to Psychology	3	PSYCH 1101	General Psychology Required	3
HIS 145 or HIS 146* or GEO 110 or PHL 101 or PHL 102 or POL 101* or ECO 120 or ECO 110 or Foreign Language	Western Civilizations Ancient and Medieval or Western Civilizations Modern European* or Geography for Educators or Intro to Philosophy or Intro to Logic 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	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHIL 1105 or PHIL 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 Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3
			elect 3 hours.		
ENG 102 or ENG 115	English Composition II or Technical Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
	No free electives applied to the degree. Group 2 Major Requirements Group 1 Core Requirements	0 44 32 Total Hours 76	Electives	Maximum Free Electives Group 2 Major Requirements Group 1 Core Requirements Tot *S&T advisor permission is required to transfer more than 61 credits toward th Engineering Management degree.	0 43 27 al Hours* 61 e S&T

	Environmental Eng	gineer	ing Gro	oup 2 Major	Requirements	
	St. Charles Community Colleges		Semester		Missouri S&T	
EGR 104	Engineering Design	3		MECH ENG 1720	Intro to Engineering Design	3
ENG 102 or ENG 115 or COM 106	English Composition II or Technical Writing or Public Speaking	3		ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
PHY 125	Intro to Physical Geology	3		GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
CHM 115	General Chemistry I and Lab	5		CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 116	General Chemistry II and Lab	5		CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3
BIO 105	Essentials of Biology	3		BIO SCI 1113, 1219*	General Biology (3) and Lab* (1) *The lab is not a degree requirement, transfers as general elective credit.	3
EGR 170	Engineering Mechanics-Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 210	Engineering Mechanics-Dynamics	3		MECH ENG 2350	Engineering Mechanics-Dynamics	2
	6 hours Human	nities and Fin oral and Social XY 1200, 130	e Arts from at le al Sciences from 0, 1310, or POL	•	s and plines.	
	Sele		nanities and Fi om at least two	specific disciplines.		
LIT 250 or LIT 260 or LIT 210 or LIT 220 or LIT 272 or HIS 101* or HIS 102* or ART 1001 or MUS 111 or THE 122	English Literature Before 1800 or English Literature After 1800 or American Literature From Beginnings-1865 or American Literature From Beginnings-1865 or American Literature From 1865-Present or World Literature-Ancient World thru Renaissance or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Intro to the Theatre *Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1805 to 1865 or American Literature: 1865 to Present or World Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change *Satisfies the State of Missouri government requirement.	6
		Behavi	oral and Socia	l Sciences		
		m at least tv	vo specific disc	iplines to include HISTO		
HIS 146*	Western Civ: Modern European Heritage* *Satisfies the State of Missouri Government requirement.	3		HISTORY 1200*	Modern Western Civilization* *Satisfies the State of Missouri Government requirement.	3
PHL 101 or PHL 102 or POL 101* or PSY 101 or ECO 120 or ECO 110 or Foreign Language	Intro to Philosophy or Intro to Logic or American 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		PHIL 1105 or PHIL 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 *Satisfies the State of Missouri government requirement.	3
	No free electives applied to the degree.	0			Maximum Free Electives	0
	Group 2 Major Requirements	40			Group 2 Major Requirements	37
	Group 1 Core Requirements Tota	32 al Hours 72			Group 1 Core Requirements Total Hours *S&T advisor permission is required to transfer more than 69 credits toward the S&T Environmental Engineering degree.	27 * 64

	Geological Engine	erin	g Grou	ıp 2 Major R	equirements	
	St. Charles Community Colleges		Semeste	<u> </u>	Missouri S&T	
EGR 104	Engineering Design	3		MECH ENG 1720	Intro to Engineering Design	3
ENO 445	Technical Writing	3		ENGLISH 3560	Technical Writing	3
ENG 115 CHM 115	General Chemistry I and Lab	5		CHEM 1310, 1319	Applies to degree as Gen Ed Communication requirement. General Chemistry I and Lab	5
CPT 135 or	Computer Science I with Python (4) or	3		CHEW 1310, 1319	General Chemistry Fand Lab	5
CPT 185 or CPT 189	Programming in C Sharp (3) or Java Programming (3)	3		CS 1500	Computational Problem Solving	3
PHY 125	Intro to Physical Geology	3		GEO ENG 1150 (GEOLOGY 1110)	Physical and Environmental Geology	3
EGR 170	Engineering Mechanics-Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 210	Engineering Mechanics-Dynamics	3		MECH ENG 2350	Engineering Mechanics-Dynamics	2
	6 hours Humanitie	s and Fine and Socia 200, 130 0	e Arts from at I Il Sciences from I, 1310, or PO		s and olines.	
	Select 6		anities and F	ine Arts o specific disciplines.		
LIT 250 or LIT 260 or LIT 220 or LIT 220 or LIT 272 or HIS 101* or HIS 102* or ART 1001 or MUS 111 or THE 122	English Literature Before 1800 or English Literature After 1800 or American Literature From Beginnings-1865 or American Literature From 1865-Present or World Literature-Ancient World thru Renaissance or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Intro to the Theatre *Satisfies the State of Missouri government requirement. Select 6 Western Civilizations Ancient and Medieval or		oral and Soci om at least tw	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150 al Sciences o specific disciplines. HISTORY 1100 or	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change *Satisfies the State of Missouri government requirement. Early Western Civilization or	6
HIS 146* or GEO 110 or PHL 101 or PHL 102 or POL 101* or PSY 101 or ECO 120 or ECO 110 or Foreign Language	Western Civilizations Modern European* or Geography for Educators or Intro to Philosophy or Intro to Logic or American 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 1200* or HISTORY 2110 or PHIL 1105 or PHIL 1115 or POL SCI 1200* or PSVCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	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
	Hu	manities	s, Arts, and S Select 3 hou	ocial Sciences rs.		
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	38			Group 2 Major Requirements	37
	Group 1 Core Requirements	32 ours 70			Group 1 Core Requirements Total Hours*	27 64
	i otal Hi	Juis 70			'S&T advisor permission is required to transfer more than 65 credits toward the S&T Geological Engineering degree.	04

	Mechanical Eng	gineeri	ng Gro	oup 2 Major F	Requirements	
	St. Charles Community Colleges		Semes	ter	Missouri S&T	
EGR 104	Engineering Design	:	3	MECH ENG 1720	Intro to Engineering Design	3
ENG 102 or ENG 115 or COM 106	English Composition II or Technical Writing or Public Speaking	;	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHM 115	General Chemistry I and Lab		5	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
CPT 182	Beginning Programming in C++		3	CS 1570	Intro to Programming (C++)	3
EGR 220	Electrical Circuits		3	ELEC ENG 2800	Electrical Circuits	3
EGR 170	Engineering Mechanics-Statics		3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 210	Engineering Mechanics-Dynamics		3	MECH ENG 2360	Dynamics	3
MAT 242	Introductory Linear Algebra	;	3	MATH 3108	Linear Algebra Satisfies the Advanced Math/Statistics elective requirement.	3
	From the 6 hours Hu	options listed umanities and F navioral and So	in each grou ine Arts from cial Sciences	s General Education Requip below, select 15 hours to in at least two specific discipline from at least two specific discovered pollocations.	nclude es and ciplines.	
			manities an			
	S	Select 6 hours	from at least	two specific disciplines.		
LIT 250 or LIT 260 or LIT 210 or LIT 220 or LIT 272 or HIS 101* or HIS 102* or ART 1001 or MUS 111 or THE 122	English Literature Before 1800 or English Literature After 1800 or American Literature From Beginnings-1865 or American Literature From 1865-Present or World Literature-Ancient World thru Renaissance or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Intro to the Theatre *Satisfies the State of Missouri government requirement.	,	3	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1221 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature: 1865 to Present or World Literature: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change *Satisfies the State of Missouri government requirement.	6
				ocial Sciences		
		Select 6 hours	from at least	two specific disciplines.		
HIS 145 or HIS 146* or GEO 110 or PHL 101 or PHL 102 or POL 101* or PSY 101 or ECO 120 or ECO 110 or Foreign Language	Western Civilizations Ancient and Medieval or Western Civilizations Modern European* or Geography for Educators or Intro to Philosophy or Intro to Logic or American 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 2100* or HISTORY 2110 or PHIL 1105 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
		Humaniti	es, Arts, an Select 3 l	d Social Sciences nours.		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any hist music, theater, English and technical communication philosophy, political science, psychology, economics etymology, or foreign language.	Ι, .	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.)		Maximum Free Electives	0
	Group 2 Major Requirements Group 1 Core Requirements	4	1		Group 2 Major Requirements Group 1 Core Requirements Total Hours* *S&T advisor permission is required to transfer more than 68 credits toward the S&T Mechanical Engineering degree.	41 27 68

	Metallurgical Eng	ineer	ing Gro	oup 2 Major	Requirements	
	St. Charles Community Colleges		Semeste	r	Missouri S&T	
EGR 104	Engineering Design		3	MECH ENG 1720	Intro to Engineering Design	3
ENG 102 or ENG 115 or COM 106	English Composition II or Technical Writing or Public Speaking		3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
EGR 170 CHM 115	Engineering Mechanics-Statics General Chemistry I and Lab		3 5	CIV ENG 2200 CHEM 1310, 1319	Engineering Mechanics-Statics General Chemistry I and Lab	3 5
CHM 116	General Chemistry II and Lab		5	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 240 or EGR 220	Organic Chemistry I or Electrical Circuits		3	CHEM 2210 or EE 2800	Organic Chemistry I or Electrical Circuits Not specifically required for the degree but will satisfy out-of-department technical elective requirement	3
	From the op 6 hours Hum	tions listed anities and F ioral and So	in each group b ine Arts from at cial Sciences fro	eneral Education Requi elow, select 15 hours to in least two specific discipline m at least two specific disc L SCI 1200 to satisfy the	nclude es and ciplines.	
	0-1		manities and F	Fine Arts o specific disciplines.		
LIT 250 or LIT 260 or LIT 210 or LIT 272 or LIT 272 or HIS 101* or HIS 102* or ART 1001 or MUS 111 or THE 122	English Literature Before 1800 or English Literature After 1800 or American Literature From Beginnings-1865 or American Literature From Beginnings-1865 or American Literature From 1865-Present or World Literature-Ancient World thru Renaissance or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Intro to the Theatre "Satisfies the State of Missouri government requirement.		6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300° or HISTORY 1310° or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change "Satisfies the State of Missour government requirement.	6
			vioral and Soci			
HIS 145 or HIS 146* or GEO 110 or PHL 101 or PHL 102 or POL 101* or PSY 101 or ECO 120 or ECO 110 or Foreign Language	Western Civilizations Ancient and Medieval or Western Civilizations Modern European* or Geography for Educators or Intro to Philosophy or Intro to Logic or American 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	o specific disciplines. HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHIL 1105 or PHIL 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
			Select 3 hou			
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history 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 Group 1 Core Requirements To	3	10 32 72		Group 2 Major Requirements Group 1 Core Requirements Total Hours* *S&T advisor permission is required to transfer more than 68 credits toward the S&T Metallurgical Engineering degree.	38 27 65

	Mining Engin	eering (Group 2 Major R	equirements	
	St. Charles Community Colleges		Semester	Missouri S&T	
EGR 104	Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3
ENG 102 or ENG 115 or COM 106	English Composition II or Technical Writing or Public Speaking	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHM 115	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
EGR 170	Engineering Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 210	Engineering Mechanics-Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
PHY 125	Intro to Physical Geology	3	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
	Humanities, A	rts, and Social	Sciences General Education Re	quirements	
	6 hours Hu	manities and Fine avioral and Social	each group below, select 12 hours to Arts from at least two specific discipl Sciences from at least two specific d , 1310, or POL SCI 1200 to satisfy t	lines and lisciplines.	
		Huma	anities and Fine Arts		
		elect 6 hours fro	m at least two specific disciplines.		
LIT 250 or LIT 260 or LIT 210 or LIT 220 or LIT 272 or HIS 101* or HIS 102* or ART 1001 or MUS 111 or THE 122	English Literature Before 1800 or English Literature After 1800 or American Literature From Beginnings-1865 or American Literature From 1865-Present or World Literature-Ancient World thru Renaissance or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Intro to the Theatre *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1800 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change "Satisfies the State of Missouri government requirement.	6
			ral and Social Sciences		
HIS 145 or HIS 146* or GEO 110 or PHL 101 or PHL 102 or POL 101* or PSY 101 or ECO 120 or ECO 110 or Foreign Language	Western Civilizations Ancient and Medieval or Western Civilizations Modern European* or Geography for Educators or Intro to Philosophy or Intro to Logic or American 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.	elect 6 hours fro	m at least two specific disciplines. HISTORY 1100 or HISTORY 2100* or HISTORY 2110 or PHIL 1105 or PHIL 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
	No free electives applied to the degree.	0		Maximum Free Electives	0
	Group 2 Major Requirements Group 1 Core Requirements	32 32 otal Hours 64		Group 2 Major Requirements Group 1 Core Requirements Total Hours *S&T advisor permission is required to transfer more than 68 credits toward the S&T Mining Engineering degree.	31 27 s* 58

	Nuclear Enginee	ring	Group	2 Major Re	quirements	
	St. Charles Community Colleges		Semeste	r	Missouri S&T	
EGR 104	Engineering Design	3		MECH ENG 1720	Intro to Engineering Design	3
ENG 102 or ENG 115 or COM 106	English Composition II or Technical Writing or Public Speaking	3		ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHM 115	General Chemistry I and Lab	5		CHEM 1310, 1319	General Chemistry I and Lab	5
CPT 182	Beginning Programming in C++	3		CS 1570*	Intro to Programming (C++)* *CS 1570 will be substituted for CS 1971.	3
MAT 242	Introductory Linear Algebra	3		MATH 3108	Linear Algebra	3
EGR 170	Engineering Mechanics-Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 220	Electrical Circuits	3		ELEC ENG 2800 eneral Education Requi	Electrical Circuits	3
	From the option 6 hours Humaniti	s listed in es and Find and Socia 1200, 1300	each group be Arts from at I Il Sciences fror	elow, select 15 hours to inc east two specific disciplines in at least two specific discip L SCI 1200 to satisfy the S	clude s and olines.	
	Select 6			o specific disciplines.		
LIT 250 or LIT 260 or LIT 210 or LIT 220 or LIT 272 or HIS 101* or HIS 102* or ART 1001 or MUS 111 or THE 122	English Literature Before 1800 or English Literature After 1800 or American Literature From Beginnings-1865 or American Literature From Beginnings-1865 or World Literature-Ancient World thru Renaissance or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Intro to the Theatre *Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1223 or HISTORY 1300° or HISTORY 1310° or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change *Satisfies the State of Missouri government requirement.	6
		Behavio	ral and Soci	al Sciences		
		hours fro	om at least tw	o specific disciplines.		
ECO 120 or ECO 110	Principles of Microeconomics or Principles of Macroeconomics	3		ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3
HIS 145 or HIS 146* or GEO 110 or PHL 101 or PHL 102 or POL 101* or PSY 101 or Foreign Language	Western Civilizations Ancient and Medieval or Western Civilizations Modern European* or Geography for Educators or Intro to Philosophy or Intro to Logic or American Government* or Intro to Psychology or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3		HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHIL 1105 or PHIL 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 *Satisfies the State of Missouri government requirement.	3
	H	umanities	s, Arts, and S Select 3 hou	ocial Sciences irs.		
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 Group 2 Major Requirements Group 1 Core Requirements Total H	0 38 32 Jours 70			Maximum Free Electives Group 2 Major Requirements Group 1 Core Requirements Total Hours* "S&T advisor permission is required to transfer more than 69 credits toward the S&T Nuclear Engineering degree.	0 38 27 65

	Petroleum Engine	ering	Group 2 Major R	equirements	
	St. Charles Community Colleges		<u>Semester</u>	Missouri S&T	
ENG 102 or ENG 115 or COM 106	English Composition II or Technical Writing or Public Speaking	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHM 115	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CPT 135 or CPT 185 or CPT 189	Computer Science I with Python (4) or Programming in C Sharp (3) or Java Programming (3)	3	COMP SCI 1500	Computational Problem Solving	3
PHY 125	Intro to Physical Geology	3	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
EGR 170	Engineering Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 210	Engineering Mechanics-Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
	6 hours Humanit	ies and Fine al and Social 1200, 1300,	each group below, select 15 hours to inc Arts from at least two specific disciplines Sciences from at least two specific disciplines 1310, or POL SCI 1200 to satisfy the S unities and Fine Arts	and blines.	
	Select		m at least two specific disciplines.		
LIT 250 or LIT 260 or LIT 210 or LIT 220 or LIT 272 or HIS 101* or HIS 102* or ART 1001 or MUS 111 or THE 122	English Literature Before 1800 or English Literature After 1800 or American Literature From Beginnings-1865 or American Literature From 1865-Present or World Literature-Ancient World thru Renaissance or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Intro to the Theatre *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1310* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change "Satisfies the State of Missouri government requirement.	6
			ral and Social Sciences		
HIS 145 or HIS 146* or GEO 110 or PHL 101 or PHL 102 or POL 101* or PSY 101 or ECO 120 or ECO 110 or Foreign Language	Western Civilizations Ancient and Medieval or Western Civilizations Modern European* or Geography for Educators or Intro to Philosophy or Intro to Logic or American 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	m at least two specific disciplines. HISTORY 1100 or HISTORY 2110 or PHIL 1105 or PHIL 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
	, and the second se		Arts, and Social Sciences Select 3 hours.		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, an music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	rt, 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	35		Group 2 Major Requirements	34
	Group 1 Core Requirements Total I	32 Hours 67		Group 1 Core Requirements Total Hours* *S&T advisor permission is required to transfer more than 69 credits toward the S&T Petroleum Engineering degree.	27 61