East Central College — 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.

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.

	East Central College	Semeste	er	Missouri S&T		
MTH 190	Analytic Geometry & Calculus I	5	MATH 1214	Calculus I Grade of C or better is required.	4	4
MTH 210	Analytic Geometry & Calculus II	5	MATH 1215	Calculus II Grade of C or better is required.	4	4
MTH 220	Analytic Geometry & Calculus III	5	MATH 2222	Calculus III Grade of C or better is required.	4	4
MTH 245	Differential Equations	3	MATH 3304	Elementary Differential Equations	;	3
PHY 211, 212	General Physics I and Lab	5	PHYSICS 1135	Engineering Physics I Grade of C or better is required.	4	4
PHY 221, 222	General Physics II and Lab	5	PHYSICS 2135	Engineering Physics II Grade of C or better is required.	4	4
COL 101	Falcon Seminar	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 32			Total Hours 2	7

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.

	Aerospace Engir	neering	g Group 2 Major R	equirements	
	East Central College		Semester	Missouri S&T	
EGR 103	Intro to Engineering Design	3	MECH ENG 1720	Intro to Engineering Design	3
ENG 102 or ENG 104 or COM 110	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 111	General Chemistry I and Lab	5	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
EGR 221, 222	C++ Program Engineers and Lab	4	COMP SCI 1971, 1981	Intro to Programming Method and Lab (C++)	3
EGR 231	Intro to Circuit Theory	3	EE 2800	Electrical Circuits	3
EGR 203	Engineering Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 214	Engineering Mechanics-Dynamics	3	AERO ENG 2360	Dynamics	3
MTH 241 or MTH 242	Linear Algebra or Engineering Statistics	3	MATH 3108 or STAT 3115	Linear Algebra I or Engineering Statistics Will satisfy the Advanced Math/Comp Sci elective requirement.	3
PHL 203	Ethics or other engineering, business, bio, social ethics approved by advisor	3	PHILOS 1130	How Shgould I Live? An Introduction to Ethics or other engineering, business, bio, social ethics approved by advisor	3
	6 hours Behavi *At least one course must be selected from HISTOF	oral and Social RY 1200, 1300, Huma	Arts from at least two specific disciplines Sciences from at least two specific discip. 1310, or POL SCI 1200 to satisfy the S unities and Fine Arts m at least two specific disciplines.	olines.	
ENG 210 or	Survey British Lit: Beginnings - 1784 or	Ct o flours froi	ENGLISH 1211 or	British Literature I: The Beginnings to 1800 or	
ENG 211 or ENG 221 or ENG 222 or ENG 124 or HST 101* or HST 102* or ART 101 or MUS 101 or THE 101	Survey British Lit: Romantic-Present or Survey American Lit: Beginnings - 1865 or Survey American Lit: 1865-Present or World Literature I or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Theatre Appreciation *Satisfies the State of Missouri government requirement.	6	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 II: 1800 to Present American Literature: 1805 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		
CIV 201 or CIV 202* or GRY 101 or PHL 101 or PHL 111 or PSC 102* or PSY 101 ir ECO 102 or ECO 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography or Intro to Philosophy or Intro to Logic or US Government I: National and State* 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	m at least two specific disciplines. HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHIL 1105 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
			Arts, and Social Sciences Select 3 hours.		
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. Group 2 Major Requirements	0 45		Maximum Free Electives Group 2 Major Requirements	0 44
	Group 1 Core Requirements	32 al Hours 77		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.	27 71

	Architectural En	gineerir	ng Grou	ıp 2 Major	Requirements	
EGR 103	East Central College Intro to Engineering Design	3	<u>Semester</u>	MECH ENG 1720	<u>Missouri S&T</u> Intro to Engineering Design	3
ENG 102 or ENG 104 or COM 110	English Composition II or Technical Writing or Public Speaking	3	1	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 111	General Chemistry I and Lab	5	(CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
EGR 203	Engineering Mechanics-Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 214	Engineering Mechanics-Dynamics	3	ı	MECH ENG 2350	Engineering Mechanics-Dynamics	2
MTH 242	Engineering Statistics	3		STAT 3115	Engineering Statistics Will be substituted for STAT 3113.	3
GEO 101	Intro to Physical Geology	3		GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
	From the 3 hours Hui	options listed in manities and Fine avioral and Social ORY 1200, 1300	each group below Arts from at lea Sciences from a 1310, or POL S	•	clude es and ciplines.	
		Huma	anities and Fin Select 3 hours.			
ENG 210 or ENG 211 or ENG 221 or ENG 222 or ENG 124 or HST 101* or HST 102* or MUS 101 or THE 101	Survey British Lit: Beginnings - 1784 or Survey British Lit: Romantic-Present or Survey American Lit: Beginnings - 1865 or Survey American Lit: 1865-Present or World Literature I or US History to 1877* or US History Since 1877* or Music Appreciation or Theatre Appreciation	3	 	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* 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 Music Understanding and Appreciation or Theatre for Social Change	3
	*Satisfies the State of Missouri government requirement.	Behavio	ral and Social	Sciences	*Satisfies the State of Missouri government requirement.	
	Select 6 hours	from at least two	specific discip	lines to include HISTO)RY 1200.	
CIV 202*	Western Civilization II* *Satisfies the State of Missouri Government requirement.	3	I	HISTORY 1200*	Modern Western Civilization* *Satisfies the State of Missouri Government requirement.	3
PHL 101 or PHL 111 or PSC 102* or PSY 101 ir ECO 102 or ECO 101 or Foreign Language	Intro to Philosophy or Intro to Logic or US Government I: National and State* 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	 	PHIL 1105 or PHIL 1115 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	32			Group 2 Major Requirements	31
	Group 1 Core Requirements	otal Hours 64			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 58

			ring-Biomanufa r Requirements		
	East Central College		nester	Missouri S&T	
	Public Speaking	3	SP&MS 1185	Principles of Speech	3
COM 110 CHM 111	General Chemistry I and Lab	5	CHEM 1310, 1319	Applies to degree as Gen Ed Communication requirement. General Chemistry I and Lab	5
CHM 112	General Chemistry II and Lab	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2)	3
CHM 205	•	5	CHEM 2210, 2219	*CHEM 1510 is not a degree requirement, transfers as general elective credit.	4
	Organic Chemistry I and Lab	5		Organic Chemistry I and Lab Organic Chemistry II and Lab or	4
CHM 206 or BIO 111 or	Organic Chemistry II and Lab or General Biology and Lab	5	CHEM 2220, 2229 or E SCI 1113, 1219	General Biology and Lab Applies to degree as Track Elective.	4
EGR 221, 222	C++ Programming for Engineers	4	COMP SCI 1971,1981*	Intro to Programming Methodology and Lab* C++) *Will be substituted for COMP SCI 1500.	3
			nces General Education Requi group below, select 12 hours to in		
	6 hours	Humanities and Fine Arts f Behavioral and Social Scien ISTORY 1200, 1300, 1310,	rom at least two specific discipline ces from at least two specific disci , or POL SCI 1200 to satisfy the	s and iplines.	
			s and Fine Arts east two specific disciplines.		
ENG 210 or ENG 211 or ENG 221 or ENG 222 or ENG 124 or HST 101* or HST 102* or ART 101 or MUS 101 or THE 101	Survey British Lit: Beginnings - 1784 or Survey British Lit: Romantic-Present or Survey American Lit: Beginnings - 1865 or Survey American Lit: 1865-Present or World Literature I or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Theatre Appreciation *Satisfies the State of Missouri government requirement.	6	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: 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
			d Social Sciences at 3 hours.		
CIV 201 or CIV 202* or GRY 101 or PSC 102* or PSY 101 ir ECO 102 or ECO 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography or US Government I: National and State* 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	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
			, and Social Sciences 3560 required.		
ENG 104	Technical Writing	3	ENGLISH 3560	Technical Writing	3
	No free electives applied to the degree. Group 2 Major Requirements Group 1 Core Requirements	0 39 32 Total Hours 71		Maximum Free Electives Group 2 Major Requirements Group 1 Core Requirements Total Hours	0 34 27 s* 61
				*S&T advisor permission is required to transfer more than 69 credit hours toward the degree.	

	Biome	dical En	ginee <u>r</u>	ing-Biomate	erials	
			_	equirements		
	East Central College		Semester	r	Missouri S&T	
COM 110	Public Speaking	3		SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHM 111	General Chemistry I and Lab	5		CHEM 1310, 1319	Applies to degree as Gen Ed Communication requirement. General Chemistry I and Lab	5
CHM 112	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 205	Organic Chemistry I and Lab	5		CHEM 2210, 2219*	Organic Chemistry I and Lab* "CHEM 2219 Lab applies to the degree as a Track Elective (non-engineering).	4
CHM 206	Organic Chemistry II and Lab	5		CHEM 2220, 2229*	Organic Chemistry II and Lab* CHEM 2229 Lab applies to the degree as a Track Elective (non-engineering).	4
BIO 111	General Biology and Lab	5		BIO SCI 1113*, 1219*	General Biology* and Lab* *Applies to degree as Track Elective (Non-engineering).	4
EGR 221, 222	C++ Programming for Engineers	4		CS 1971,1981*	Intro to Programming Methodology and Lab* C++) "Will be substituted for CS 1500.	3
EGR 203	Engineering Mechanics-Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 231	Intro to Circuit Theory	3		EE 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 EE 2100. Applies to the degree as a Track Elective (Engineering).	4
	Humanities	, Arts, and Socia	l Sciences G	eneral Education Requi	rements	
				elow, select 12 hours to inc east two specific disciplines		
				n at least two specific discip		
	*At least one course must be selected from H			•	State of Missouri government requirement.	
			anities and F	o specific disciplines.		
ENG 210 or	Survey British Lit: Beginnings - 1784 or	Coloot o Hours III	om at loadt tw	ENGLISH 1211 or	British Literature I: The Beginnings to 1800 or	
ENG 211 or	Survey British Lit: Romantic-Present or			ENGLISH 1212 or	British Literature II: 1800 to Present	
ENG 221 or	Survey American Lit: Beginnings - 1865 or			ENGLISH 1221 or	American Literature: 1600 to 1865 or	
ENG 222 or	Survey American Lit: 1865-Present or			ENGLISH 1222 or	American Literature: 1865 to Present or	
ENG 124 or	World Literature I or			ENGLISH 1231 or	World Literature I: Beginnings to the Renaissance or	
HST 101* or	US History to 1877* or	6		HISTORY 1300* or	American History to 1877* or	6
HST 102* or	US History Since 1877* or			HISTORY 1310* or	American History Since 1877* or	
ART 101 or	Art Appreciation or			ART 1180 or	Art Appreciation or	
MUS 101 or	Music Appreciation or			MUSIC 1150 or	Music Understanding and Appreciation or	
THE 101	Theatre Appreciation *Satisfies the State of Missouri government requirement.			THEATRE 1150	Theatre for Social Change *Satisfies the State of Missouri government requirement.	
		Behavio	oral and Socia			
004.004	W		Select 3 hou		5 - 1 W - 1 - 0' ' ' '	
CIV 201 or	Western Civilization I or			HISTORY 1100 or	Early Western Civilization or	
CIV 202* or	Western Civilization II* or			HISTORY 1200* or	Modern Western Civilization* or	
GRY 101 or	World Geography or			HISTORY 2110 or	World Regional Geography or	
PSC 102* or PSY 101 ir	US Government I: National and State* or	3		POL SCI 1200* or PSYCH 1101 or	American Government* or	3
ECO 102 or	General Psychology or Principles of Microeconomics or	3		ECON 1100 or	General Psychology or Principles of Microeconomics or	3
ECO 102 01 ECO 101 or	Principles of Macroeconomics or			ECON 1100 or	Principles of Macroeconomics or	
Foreign Language	Elementary or Intermediate Foreign Language			Foreign Language	Elementary or Intermediate Foreign Language	
	*Satisfies the State of Missouri government requirement.		s, Arts, and S GLISH 3560 re	ocial Sciences	*Satisfies the State of Missouri government requirement.	
ENG 104	Technical Writing	3	JE1311 3300 16	ENGLISH 3560	Technical Writing	3
	No free electives applied to the degree.	0			Maximum Free Electives	0
	Group 2 Major Requirements	50			Group 2 Major Requirements	45
	Group 1 Core Requirements	32			Group 1 Core Requirements	27
		Total Hours 82			Total Hours *S&T advisor permission is required to transfer more than 69 credits toward the S&T Biomedical Engineering degree.	

	Ceramic Engine	ering	Group	2 Major Re	quirements	
FOR 402	East Central College	3	Semester		Missouri S&T	2
EGR 103 ENG 102 or ENG 104 or COM 110	Intro to 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
EGR 203	Engineering Mechanics-Statics	3 5		CIV ENG 2200	Engineering Mechanics-Statics	3 5
CHM 111 CHM 112	General Chemistry I and Lab General Chemistry II Lecutre and Lab	5		CHEM 1310, 1319 CHEM 1320, 1510*	General Chemistry I and Lab General Chemistry II (3) and Qualitative Analysis (2)	3
CHM 205	Organic Chemistry I and Lab	5		CHEM 2210, 2219* or CHEM 3310	"CHEM 1510 is not a degree requirement, transfers as general elective credit. Organic Chemistry I (3) and Lab* (1) Satisfies the advanced chemistry elective requirement. The lab is not a degree requirement, transfers as general elective credit.	3
MTH 242	Engineering Statistics	3		STAT 3115	Applied Engineering Statistics or any statistics course 3000-level or higher. Satisfies statistics elective requirement.	3
	6 hours Human 6 hours Behavior *At least one course must be selected from HISTOR*	ities and Fine ral and Socia Y 1200, 1300 Hum	e Arts from at least solution	ine Arts	and blines.	
ENG 210 or ENG 211 or ENG 221 or ENG 222 or ENG 124 or HST 101* or HST 102* or ART 101 or MUS 101 or THE 101	Survey British Lit: Beginnings - 1784 or Survey British Lit: Romantic-Present or Survey American Lit: Beginnings - 1865 or Survey American Lit: 1865-Present or World Literature I or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Theatre Appreciation *Satisfies the State of Missouri government requirement.	6		o specific disciplines. ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1300° or HISTORY 1300° 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
	Selec		oral and Socia om at least two	al Sciences o specific disciplines.		
CIV 201 or CIV 202* or GRY 101 or PHL 101 or PHL 111 or PSC 102* or PSY 101 ir ECO 102 or ECO 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography or Intro to Philosophy or Intro to Logic or US Government I: National and State* 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		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 Missour government requirement.	6
	1	Humanities	s, Arts, and Se Select 3 hour	ocial 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.	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. Group 2 Major Requirements Group 1 Core Requirements Total	0 42 32 Hours 74			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 Ceramic Engineering degree.	0 38 27 65

	Che	mical E	ingineering or		
	Chemical Engineering			ering Emphasis	
			r Requirements		
	East Central College		mester	Missouri S&T	
EGR 103	Intro to Engineering Design	3 <u>Se</u>	MECH ENG 1720	Intro to Engineering Design	3
COM 110	Public Speaking	3	SP&MS 1185	Principles of Speech	3
	· · · · ·			Applies to degree as Gen Ed Communication requirement.	
CHM 111	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab General Chemistry II and Lab*	5
CHM 112	General Chemistry II Lecutre and Lab	5	CHEM 1320, 1510*	*CHEM 1510 is not a degree requirement, transfers as general elective credit.	3
CHM 205	Organic Chemistry I Lecture and Lab	5	CHEM 2210, 2219*	Organic Chemistry I and Lab* "CHEM 2210 is a degree requirement. CHEM 2219 applies to the degree as 1 of 9 required science elective credits See note below.	4
CHM 206 or BIO 208	Organic Chemistry II Lecture and Lab or General Microbiology Lecture and Lab Will satisfy science elective requirement. Select up to 9 hours from these options.	9	CHEM 2220, 2229*or BIO SCI 3313, 3319	Organic Chemistry II (3) and Lab* or Microbiology and Lab (5) Will satisfy science elective requirement. Select up to 9 hours from these options or CHEM 2219 Organic Chemistry Lab. *CHEM 2229 is not an S&T degree requirement; will transfer as general elective credit.	8
EGR 221, 222	C++ Programming for Engineers	4	COMP SCI 1971,1981*	Intro to Programming Methodology and Lab* C++) "Will be substituted for COMP SCI 1500.	3
MTH 242	Engineering Statistics	3	STAT 3115*	Engineering Statistics* *Will be substituted for STAT 3113.	3
	6 hours Behaviora *At least one course must be selected from HISTORY	1200, 1300, 1310	nces from at least two specific discip o, or POL SCI 1200 to satisfy the S os and Fine Arts		
	Select	6 hours from at	least two specific disciplines.		
ENG 210 or ENG 221 or ENG 222 or ENG 124 or HST 101* or HST 102* or ART 101 or MUS 101 or THE 101	Survey British Lit: Beginnings - 1784 or Survey British Lit: Romantic-Present or Survey American Lit: Beginnings - 1865 or Survey American Lit: 1865-Present or World Literature I or US History to 1877* or US History to 1877* or Art Appreciation or Music Appreciation or Theatre Appreciation 'Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1221 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		
CIV 201 or CIV 202* or GRY 101 or PHL 101 or PHL 111 or PSC 102* or PSY 101 ir ECO 102 or	Western Civilization I or Western Civilization II* or World Geography or Intro to Philosophy or Intro to Logic or US Government I: National and State* or General Psychology or Principles of Microeconomics or	6 hours from at	least two 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	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	6
ECO 101 or Foreign Language	Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.		ECON 1200 or Foreign Language	Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	
	н		s, and Social Sciences I 3560 required.		
ENG 104	Technical Writing	3	ENGLISH 3560	Technical Writing	3
	No free electives applied to the degree.	0	2.102.0.1000	Maximum Free Electives	0
	Group 2 Major Requirements	52		Group 2 Major Requirements	47
	Group 1 Core Requirements	32		Group 1 Core Requirements	27
	Total F	lours 84		Total Hours* *S&T advisor permission is required to transfer more than 68 credits toward the S&T Chemical Engineering degree.	74

	Civil Engineeri	ng Gr	oup 2	Major Req	uirements	
ECD 403	East Central College	3	Semester		Missouri S&T	3
EGR 103 ENG 102 or ENG 104 or COM 110	Intro to 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 111	General Chemistry I and Lab	5		CHEM 1310, 1319	General Chemistry I and Lab	5
GEO 101	Intro to Physical Geology	3		GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
EGR 203	Engineering Mechanics-Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 214	Engineering Mechanics-Dynamics	3		MECH ENG 2350	Engineering Mechanics-Dynamics	2
MTH 242	Engineering Statistics	3		STAT 3115*	Engineering Statistics*	3
	* *	and Social	Saionean Go	neral Education Requ	*Will be substituted for STAT 3113.	
	6 hours Humaniti	es and Fine I and Social	Arts from at le Sciences from	low, select 15 hours to in east two specific discipline at least two specific disc SCI 1200 to satisfy the	s and iplines.	
		Huma	nities and Fi	ne Arts		
	Select	6 hours fror	n at least two	specific disciplines.		
ENG 210 or ENG 211 or ENG 221 or ENG 222 or ENG 124 or HST 101* or HST 102* or ART 101 or MUS 101 or THE 101	Survey British Lit: Beginnings - 1784 or Survey British Lit: Romantic-Present or Survey American Lit: Beginnings - 1865 or Survey American Lit: 1865-Present or World Literature I or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Theatre Appreciation *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: 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
			al and Socia			
CIV 201 or CIV 202* or GRY 101 or PHL 101 or PHL 111 or PSC 102* or PSY 101 ir ECO 102 or ECO 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography or Intro to Philosophy or Intro to Logic or US Government I: National and State* 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 hours fror	n at least two	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
	н		Arts, and So Select 3 hour	ocial Sciences s.		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, ar music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	t, 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 Total H	38 32 Hours 70			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	37 27 64

	Committee		Cuar	o O Maio e B		
	Computer Eng	gineering	Grou	p z Major R	equirements	
	East Central College		Semester		Missouri S&T	
COM 110	Public Speaking	3		SPMS 1185	Principles of Speech	3
CHM 111	General Chemistry I and Lab	5		CHEM 1310, 1319	Applies to degree as Gen Ed Communication requirement. General Chemistry I and Lab	5
EGR 251 or	Data Structures or			,	,	
EGR 221,222	C++ Program Engineers and Lab	3		COMP SCI 1500	Computational Problem Solving	3
EGR 213 and EGR 214 or CHEM 205	Engineering Mechanics-Statics (3) and Engineering Mechanics- Dynamics (3) or Organic Chemistry I and Lab (5)	3		CIV ENG 2200 or MECH ENG 2350 or CHEM 2210, 2219*	Engineering Mechanics-Statics (3) or Engineering Mechanics-Dynamics (2) or Organic Chemistry I and Lab* (4) Satisfies a required engineering/science elective. *CHEM 2219 is not an S&T degree requirement; transfers as general elective credit.	3
EGR 231	Intro to Circuit Theory	3		EE 2100**	Circuits I **A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for EE 2100.	4
MTH 241	Linear Algebra	3		MATH 3108	Linear Algebra	3
MTH 242	Engineering Statistics	3		STAT 3115*	Will satisfy a required math elective. Engineering Statistics*	3
IVI I TI 242	<u> </u>			eneral Education Requi	*Will be substituted for STAT 3117.	3
	6 hours I	Humanities and Fine ehavioral and Social STORY 1200, 1300,	Arts from at le Sciences from 1310, or POL	•	s and plines.	
			nities and Finat least two	ine Arts specific disciplines.		
ENG 210 or ENG 211 or ENG 221 or ENG 222 or ENG 124 or HST 101* or HST 102* or ART 101 or MUS 101 or THE 101	Survey British Lit: Beginnings - 1784 or Survey British Lit: Romantic-Present or Survey American Lit: Beginnings - 1865 or Survey American Lit: 1865-Present or World Literature I or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Theatre Appreciation '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 General Education Humanities and Fine Arts Requirement.	6
			al and Socia			
CIV 201 or CIV 202* or GRY 101 or PHL 101 or PHL 111 or PSC 102* or PSY 101 ir ECO 102 or ECO 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography or Intro to Philosophy or Intro to Logic or US Government I: National and State* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Miscouri government requirement.	Select o nours from	n at least (WC	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 Missour government requirement.	6
				ocial Sciences		
ENG 102 or	English Composition II or	3	Select 3 hour	ENGLISH 1160 or	Writing and Research or	3
ENG 104	Technical Writing Maximum Free Electives	3		ENGLISH 3560 Electives	Technical Writing Maximum Free Electives	
Electives	Group 2 Major Requirements	41		Electives	Group 2 Major Requirements	3 42
	Group 1 Core Requirements	32			Group 1 Core Requirements	27
	 	Total Hours 73			Total Hours* *S&T advisor permission is required to transfer more than 68 credits toward the S&T Computer Engineering degree.	69

	Electrical Engineeri	ng	Group	o 2 Major Rec	quirements	
	East Central College		Semester		Missouri S&T	
EGR 103	Intro to Engineering Design	3		MECH ENG 1720	Intro to Engineering Design	3
COM 110	Public Speaking	3		SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHM 111	General Chemistry I and Lab	5		CHEM 1310, 1319	General Chemistry I and Lab	5
EGR 251 or	Data Structures or	3		COMP SCI 1500	Computational Problem Solving	3
EGR 221,222 EGR 213 and EGR 214 (BOTH of the courses above or ONE course below.) OR CHEM 205	C++ Program Engineers and Lab Engineering Mechanics-Statics (3) and Engineering Mechanics- Dynamics (3) (Both courses above combined or the one course below will satisfy a required engineering science elective.) OR Organic Chemistry I and Lab (5) "A maximum of 3 credit hours applies to the engineering science elective. Any additional credit hours apply to degree totals as general elective credit.	3		CIV ENG 2200 and MECH ENG 2350 (BOTH of the courses above or ONE course below.) OR CHEM 2210	Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (3) (Both courses above combined or the one course below will satisfy a required engineering science elective.) OR Organic Chemistry I (4) 'A maximum of 3 credit hours applies to the engineering science elective. Any additional credit hours apply to degree totals as general elective credit.	3
EGR 231	Intro to Circuit Theory	3		EE 2100**	Circuits I **A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for EE 2100.	4
MTH 241	Linear Algebra	3		MATH 3108	Linear Algebra	3
MTH 242	Engineering Statistics	3		STAT 3115*	Engineering Statistics*	3
			Sciences Go	eneral Education Requiren	*Will be substituted for STAT 3117.	
	From the options liste 6 hours Humanities an	ed in e d Fine Social	each group be Arts from at le Sciences from	elow, select 15 hours to includ east two specific disciplines ar n at least two specific disciplin	de nd es.	
			nities and Fi			
		rs froi	m at least two	specific disciplines.		
ENG 210 or ENG 211 or ENG 221 or ENG 222 or ENG 124 or HST 101* or HST 101* or MUS 101 or THE 101	Survey British Lit: Beginnings - 1784 or Survey British Lit: Romantic-Present or Survey American Lit: Beginnings - 1865 or Survey American Lit: 1865-Present or World Literature I or US History to 1877* or US History to 1877* or Art Appreciation or Music Appreciation or Theatre Appreciation *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 Genarl Education Humanities and Fine Arts Requirement. *Satisfies the State of Missouri government requirement.	6
			ral and Socia			
CIV 201 or CIV 202* or GRY 101 or PHL 101 or PHL 111 or PSC 102* or PSY 101 ir ECO 102 or ECO 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography or Intro to Philosophy or Intro to Logic or US Government I: National and State* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government.	6		o specific disciplines. 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
	Humar		Arts, and So Select 3 hour	ocial Sciences		
ENG 102 or ENG 104	English Composition II or 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 Group 1 Core Requirements Total Hours	47 32			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 Electrical Engineering degree.	48 27 75

	Engineering M	anagen	nent Gro	oup 2 Major F	Requirements	
	East Central College		Semeste	<u>r</u>	Missouri S&T	
EGR 103	Intro to Engineering Design		3	MECH ENG 1720	Intro to Engineering Design	3
COM 110	Public Speaking		3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHM 111	General Chemistry I and Lab		5	CHEM 1310, 1319	General Chemistry I and Lab	5
EGR 221, 222	C++ Programming for Engineers		4	COMP SCI 1971,1981*	Intro to Programming Methodology and Lab* C++) *Will be substituted for CS 1500.	3
EGR 231	Intro to Circuit Theory		3	EE 2800	Electrical Circuits	3
EGR 203	Engineering Mechanics-Statics		3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 214	Engineering Mechanics-Dynamics		3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
MTH 242	Engineering Statistics	- 4-4	3 	STAT 3115 eneral Education Require	Engineering Statistics	3
	6 hours	Humanities and Sehavioral and S	d Fine Arts from at Social Sciences from	elow, select 15 hours to incl least two specific disciplines m at least two specific discip L SCI 1200 to satisfy the S	and ines.	
			lumanities and I			
ENG 210 or	Survey British Lit: Beginnings - 1784 or	Select 6 hour	rs from at least tw	o specific disciplines. ENGLISH 1211 or	British Literature I: The Beginnings to 1800 or	
ENG 211 or ENG 221 or ENG 222 or ENG 124 or HST 101* or HST 102* or ART 101 or MUS 101 or	Survey British Lit: Romantic-Present or Survey American Lit: Beginnings - 1865 or Survey American Lit: 1865-Present or World Literature I or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or		6	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 II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present 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	6
THE 101	Theatre Appreciation *Satisfies the State of Missouri government requirement.			THEATRE 1150	Theatre for Social Change *Satisfies the State of Missouri government requirement.	
	Select 6 h		avioral and Soci	al Sciences sciplines to include PSYCH	11101	
PSY 101	General Psychology	ours nom at ice	3	PSYCH 1101	General Psychology Required	3
	, 0,		3		, ,	3
CIV 201 or CIV 202* or GRY 101 or PHL 101 or PHL 111 or PSC 102* ECO 102 or ECO 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography or Intro to Philosophy or Intro to Logic or US Government I: National and State* 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 Principles of Macroeconomics or Elementary or Intermediate Foreign Language . *Satisfies the State of Missouri government requirement.	3
		Human	ities, Arts, and S Select 3 hou			
ENG 102 or ENG 104	English Composition II or Technical Writing		3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
2.10 104	No free electives applied to the degree.		0	Electives	Maximum Free Electives	0
	Group 2 Major Requirements		42		Group 2 Major Requirements	40
	Group 1 Core Requirements	Total Hours	32		Group 1 Core Requirements Total Hours' *S&T advisor permission is required to transfer more than 61 credits toward the S&T Engineering Management degree.	27

	Environmental En	gine	eri	ng Group 2 Major	Requirements	
	East Central College			Semester	Missouri S&T	
EGR 103	Intro to Engineering Design		3	MECH ENG 1720	Intro to Engineering Design	3
ENG 102 or ENG 104 or COM 110	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
GEO 101	Intro to Physical Geology		3	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
CHM 111	General Chemistry I and Lab		5	CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 112	General Chemistry II Lecutre 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 111	General Biology Lecture and Lab		5	BIO SCI 1113, 1219*	General Biology (3) and Lab* (1) *The lab is not a degree requirement, transfers as general elective credit.	3
EGR 203	Engineering Mechanics-Statics		3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 214	Engineering Mechanics-Dynamics		3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
MTH 242	Engineering Statistics		3	STAT 3115 Sciences General Education Requi	Engineering Statistics Will be substituted for STAT 3113.	3
	6 hours Beha *At least one course must be selected from HISTO	vioral and S ORY 1200, I	Social 1300, Iuma	nities and Fine Arts	blines.	
	Se	lect 6 hour	s froi	n at least two specific disciplines.		
ENG 210 or ENG 211 or ENG 221 or ENG 222 or ENG 124 or HST 101* or HST 101* or ART 101 or MUS 101 or THE 101	Survey British Lit: Beginnings - 1784 or Survey British Lit: Romantic-Present or Survey American Lit: Beginnings - 1865 or Survey American Lit: 1865-Present or World Literature I or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Theatre Appreciation *Satisfies the State of Missouri government requirement.		6	ENGLISH 1211 or ENGLISH 1221 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: 1866 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 General Education Humanities and Fine Arts Requirement. *Satisfies the State of Missouri government requirement.	6
		Beh	avior	al and Social Sciences		
	Select 6 hours from at least two specific disc				garding HISTORY 1200, 1300, 1310.)	
CIV 202*	Western Civilization II* *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 111 or PSC 102° or PSY 101 or ECO 102 or ECO 101 or Foreign Language	Intro to Philosophy or Intro to Philosophy or Intro to Logic or US Government I: National and State* 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	PHIL 1105 or PHIL 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Satisfies the State of Missouri government requirement. 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 Group 1 Core Requirements	otal Hours	45 32 77		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 Environmental Engineering degree.	40 27 67

	Geological Engi	neerin	g Grou	ıp 2 Major Re	equirements	
	East Central College		Semeste	<u>r</u>	Missouri S&T	
EGR 103	Intro to Engineering Design	3		MECH ENG 1720	Intro to Engineering Design	3
ENG 104	Technical Writing	3		ENGLISH 3560	Technical Writing Applies to degree as Gen Ed Communication requirement.	3
CHM 111	General Chemistry I and Lab	5		CHEM 1310, 1319	Applies to degree as Gen Ed Communication requirement. General Chemistry I and Lab	5
EGR 221, 222	C++ Programming for Engineers	4		COMP SCI 1971.1981*	Intro to Programming Methodology and Lab* C++)	3
GEO 101	Intro to Physical Geology	3		GEO ENG 1150 (GEOLOGY 1110)	*Will be substituted for COMP SCI 1500. Physical and Environmental Geology	3
EGR 203	Engineering Mechanics-Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 214	Engineering Mechanics-Dynamics	3		MECH ENG 2350	Engineering Mechanics-Dynamics	2
MTH 242	Engineering Statistics	3		STAT 3115	Engineering Statistics Will be substituted for STAT 3113.	3
	From the op 6 hours Huma	tions listed in anities and Find ioral and Socia RY 1200, 1300	each group be Arts from at l I Sciences from I, 1310, or PO	•	ude and ines.	
			anities and F			
ENIO 040 - ::		ect 6 hours fro	m at least tw	o specific disciplines.	Delich Literature I. The Decire in the 4000 on	
ENG 210 or ENG 211 or ENG 221 or ENG 222 or ENG 124 or HST 101* or HST 102* or ART 101 or MUS 101 or THE 101	Survey British Lit: Beginnings - 1784 or Survey British Lit: Romantic-Present or Survey American Lit: Beginnings - 1865 or Survey American Lit: 1865-Present or World Literature I or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Theatre Appreciation *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 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		
	Sele	ect 6 hours fro	m at least tw	o specific disciplines.		
CIV 201 or CIV 202* or GRY 101 or PHL 101 or PHL 111 or PSC 102* or PSY 101 ir ECO 102 or ECO 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography or Intro to Philosophy or Intro to Logic or US Government I: National and State* 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		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	, Arts, and S Select 3 hou	ocial Sciences Irs.		
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. Group 2 Major Requirements	42			Maximum Free Electives Group 2 Major Requirements	40
	Group 1 Core Requirements	32 al Hours 74			Group 2 Inapir Trequirements Group 1 Core Requirements Total Hours* *S&T advisor permission is required to transfer more than 65 credits toward the S&T Geological Engineering degree.	27 67

	Mechanical Engi	neerin	g Grou	ıp 2 Major R	equirements	
	East Central College		Semester		Missouri S&T	
EGR 103	Intro to Engineering Design	3		MECH ENG 1720	Intro to Engineering Design	3
ENG 102 or ENG 104 or COM 110	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 111	General Chemistry I and Lab	5		CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
EGR 221, 222	C++ Program Engineers and Lab	4		COMP SCI 1971, 1981	Intro to Programming Method and Lab (C++)	3
EGR 231	Intro to Circuit Theory	3		EE 2800	Electrical Circuits	3
EGR 203	Engineering Mechanics-Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 214	Engineering Mechanics-Dynamics	3		MECH ENG 2360	Dynamics	3
MTH 241 or	Linear Algebra or	3		MATH 3108 or	Linear Algebra I or	3
MTH 242	Engineering Statistics	3		STAT 3115	Engineering Statistics Will satisfy the Advanced Math/Comp Sci elective requirement.	3
	6 hours Hum	anities and Fine vioral and Socia PRY 1200, 1300	Arts from at le Sciences from , 1310, or POL	-	and lines.	
			anities and F			
		ect 6 hours fro	m at least two	specific disciplines.		
ENG 210 or ENG 211 or ENG 221 or ENG 222 or ENG 124 or HST 101* or HST 101 or MUS 101 or THE 101	Survey British Lit: Beginnings - 1784 or Survey British Lit: Romantic-Present or Survey American Lit: Beginnings - 1865 or Survey American Lit: 1865-Present or World Literature I or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Theatre Appreciation *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
	0-1		ral and Socia			
CIV 201 or CIV 202* or GRY 101 or PHL 101 or PHL 111 or PSC 102* or PSY 101 ir ECO 102 or ECO 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography or Intro to Philosophy or Intro to Logic or US Government I: National and State* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	ect 6 nours fro	m at least tWC	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
		Humanities	, 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.	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	42 32			Group 2 Major Requirements	41 27
	Group 1 Core Requirements To	tal Hours 74			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.	68

	Metallurgical Engin	eerin	g Gro	up 2 Major F	Requirements	
EGR 103	East Central College Intro to Engineering Design	3	Semester	MECH ENG 1720	<u>Missouri S&T</u> Intro to Engineering Design	3
ENG 102 or ENG 104 or COM 110	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
MTH 242	Engineering Statistics	3		STAT 3115	Engineering Statistics	3
EGR 203	Engineering Mechanics-Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
CHM 111	General Chemistry I and Lab	5		CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 112	General Chemistry II Lecutre and Lab	5		CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2)* *CHEM 1510 is not an S&T degree requirement; course transfers as elective credit.	3
CHEM 205 or EGR 231	Organic Chemistry I and Lab or Intro to Circuit Theory	3		CHEM 2210, 2219* or EE 2800	Organic Chemistry I (4) or Electrical Circuits (3) Not specifically required for the degree but will satisfy Out-of-Department Technical Elective Requirement. "CHEM 2219 is not an S&T degree requirement; will transfer as general elective credit.	3
	From the options 6 hours Humanitie	s listed in e es and Fine and Social	each group be Arts from at le Sciences from	eneral Education Require elow, select 15 hours to include ast two specific disciplines at least two specific disciplines	ude and ines.	
	At least one course must be selected from morotti		anities and F	•	tate of missouri government requirement.	
	Select 6			specific disciplines.		
ENG 210 or ENG 211 or ENG 221 or ENG 222 or ENG 124 or HST 101* or HST 102* or ART 101 or MUS 101 or THE 101	Survey British Lit: Beginnings - 1784 or Survey British Lit: Romantic-Present or Survey American Lit: Beginnings - 1865 or Survey American Lit: 1865-Present or World Literature I or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Theatre Appreciation *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
	Select 6		ral and Socia	al Sciences o specific disciplines.		
CIV 201 or CIV 202* or GRY 101 or PHL 101 or PHL 111 or PSC 102* or PSY 101 ir ECO 102 or ECO 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography or Intro to Philosophy or Intro to Logic or US Government I: National and State* 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		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
	Hu	umanities	Arts, and So Select 3 hour	ocial Sciences		
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 Group 1 Core Requirements	43 32			Group 2 Major Requirements Group 1 Core Requirements	41 27
		ours 75			Total Hours* *S&T advisor permission is required to transfer more than 68 credits toward the S&T Metallurgical Engineering degree.	

CIV 202* or Western Civilization II* or World Geography or HISTORY 1200* or HISTORY 2110 or World Regional Geography or HISTORY 2110 or World Regional Geography or PHL 1105 or Self and World. Intro to Philosophy or PHL 1105 or Self and World. Intro to Philosophy or PHL 1115 or Logic and Reasoning: An Introduction or PSC 102* or US Government I: National and State* or 6 POL SCI 1200* or PSY 101 ir General Psychology or PSYCH 1101 or General Psychology or PSYCH 1101 or General Psychology or Principles of Microeconomics or ECO 102 or Principles of Microeconomics or ECO 1100 or Principles of Macroeconomics or ECO 1100 or Principles of		willing Engil	licering C	Froup 2 Major Re	quitements	
ENG 100 or Finding or Technical Writing or Public Speaking SPMS 1185 or Speech SPMS 1185 or Sp	EGR 103		3			3
MTH 242 Engineering Statistics OHM 111 General Chemistry I and Lab 5 CHEM 1310, 1319 General Chemistry I and Lab EGR 203 Engineering Mechanics-Statics 3 CIV ENG 2200 Engineering Mechanics-Statics EGR 214 Engineering Mechanics-Dynamics 3 MECH ENG 2350 Engineering Mechanics-Dynamics GEO 101 Intro to Physical Geology 3 GEOLOGY 1110 Physical Geology 3 GEOLOGY 1110 Physical Geology 9 3 GEOLOGY 1110 Physical Geology 9 3 GEOLOGY 1110 Physical Geology 9 3 GEOLOGY 1110 Physical and Environmental Geology 9 Physical G	ENG 102 or ENG 104 or	English Composition II or Technical Writing or		ENGLISH 1160 or ENGLISH 3560 or	Writing and Research or Technical Writing or Principles of Speech	3
EGR 203 Engineering Mechanics-Statics 3 CIV ENG 2200 Engineering Mechanics-Dynamics GER 214 Engineering Mechanics-Dynamics 3 GEO CGY 1110 (SEC ENG 1150) Physical geology 3 GEO CGY 1110 (SEC ENG 1150) Physical and Environmental Geology (SEC ENG 1150) Physical Environmental Environmental Geology (SEC ENG 1150) Physical Environme	MTH 242	Engineering Statistics	3	STAT 3115		3
ERR 214 Engineering Mechanics-Dynamics 3 MECH ENG 2350 Engineering Mechanics-Dynamics 3 GEOLOGY 1110 Physical Geology (CEO ENG 1150) Physical and Environmental Geology (CEO ENG 1150) Physical Geology (CEO ENG 1150) Physica	CHM 111	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
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 PDI_SCI 1200 to satisfy the State of Missouri government requirement. Humanities and Fine Arts Select 6 hours from at least two specific disciplines. "At least one course must be selected from HISTORY 1200, 1300, 1310, or PDI_SCI 1200 to satisfy the State of Missouri government requirement. Humanities and Fine Arts Select 6 hours from at least two specific disciplines. ENG 210 or Survey British Lit: Beginnings - 1784 or ENGLISH 1211 or ENGLISH 1211 or Survey Mirities Lit: Romanitic-Present or ENGLISH 1221 or Survey American Lit: Beginnings - 1865 or ENGLISH 1221 or Survey American Lit: Beginnings - 1865 or ENGLISH 1222 or Survey American Lit: Beginnings - 1865 or ENGLISH 1221 or ENGLISH 1222 or Survey American Lit: Beginnings - 1865 or ENGLISH 1221 or ENGLISH 1220 or Survey American Lit: 1865 horesent or ENGLISH 1221 or ENGLISH 1220 or ENGLISH 1231 or US History to 1877 or 6 HISTORY 1300 or HISTORY 1300 or ART 101 or Art Appreciation or ENGLISH 1231 or US History to 1877 or 4 HISTORY 1300 or ART 1180 or ENGLISH 1210 or HISTORY 1210 o	EGR 203	Engineering Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	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 Frine Arts form 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 Frine Arts Select 6 hours 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 Frine Arts Select 6 hours from at least two specific disciplines. ENG 210 or Survey British Lit: Beginnings - 1784 or ENG 221 or Survey American Lit: Beginnings - 1865 or ENG 211 or ENG 221 or Survey American Lit: 1865-Present or ENG 222 or Survey American Lit: 1865-Present or ENG 222 or Survey American Lit: 1865-Present or ENG 124 or World Literature I or US History to 1877* or 6 HISTORY 1300* or HISTORY 1300* or HISTORY 1300* or HISTORY 1300* or HISTORY 1310* or HISTORY 1310* or ART 1100 or HISTORY 1310* or HISTORY 1100 or HISTORY 1100* or	EGR 214	Engineering Mechanics-Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
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, 1301, 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. **Select 6 hours from at least two specific disciplines.** Select 6 hours from at least two specific disciplines. **ENG 210 or Survey British Lit: Romanito-Present or ENGLISH 1212 or British Literature I: The Beginnings to 1800 or Survey American Lit: Beginnings - 1865 or ENGLISH 1221 or Survey American Lit: Beginnings - 1865 or ENGLISH 1221 or Survey American Lit: Beginnings - 1865 or ENGLISH 1221 or Survey American Lit: Beginnings - 1865 or ENGLISH 1221 or Survey American Lit: Beginnings - 1865 or ENGLISH 1221 or Survey American Lit: 1800 to 1865 or ENGLISH 1221 or World Literature I or US History to 1877 or ENGLISH 1231 or World Literature I or US History to 1877 or ENGLISH 1231 or World Literature I end Eventual Endlish Endli	GEO 101	Intro to Physical Geology	3		Physical and Environmental Geology	3
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, 170 p. POL Sci 1200 to satisfy the State of Missouri government requirement. Humanities and Fine Arts Select 6 hours from at least two specific disciplines. ENG 210 or Survey British Lit: Beginnings - 1784 or ENG 211 or Survey British Lit: Romantic-Present or ENG 211 or Survey American Lit: 1865 for Present ENG 221 or ENG 222 or Survey American Lit: 1865 resent or ENG 222 or ENG 124 or ENG 125 or ENG 125 or ENG 125 or ENG 125 or ENG 126 or ENG 127 or ENG 127 or ENG 127 or ENG 128 or		Humanities	. Arts. and Social S		irements	
Humanities and Fine Arts Select 6 hours from at least two specific disciplines. ENG 210 or Survey British Lit: Beginnings - 1784 or Survey British Lit: Romantic-Present or Survey British Lit: Romantic-Present or Survey American Lit: Beginnings - 1865 or ENGLISH 1212 or ENGLISH 1221 or American Literature: 1600 to 1865 or ENGLISH 1222 or Survey American Lit: Beginnings - 1865 or ENGLISH 1222 or Survey American Lit: Beginnings - 1865 or ENGLISH 1222 or American Literature: 1600 to 1865 or ENGLISH 1220 or American Literature: 1600 to 1865 or ENGLISH 1220 or American Literature: 1600 to 1865 or ENGLISH 1220 or American Literature: 1686 to Present or ENGLISH 1220 or World Literature I: Beginnings to the Renaissance or HIST 101 or US History to 1877* or American History Since 1877* or HISTORY 1310* or Art Appreciation or Art Appreciation or Art Appreciation or Art Appreciation or Music Appreciation or Music Appreciation or Theatre Posocial Change **Satisfies the State of Missouri government requirement.** **Behavioral and Social Sciences** **Select 6 hours from at least two specific disciplines.** **CIV 201 or Western Civilization II* or HISTORY 1700* or HISTORY 1700* or HISTORY 17100 or HISTORY 17100 or HISTORY 2110 or PHIL 1115 or Intro to Deplic sophy or PHIL 1115 or Intro to Deplic application or PHIL 1115 or Intro to Deplic sophy or PHIL 1115 or PHIL 1115 or Logic and Reasoning: An Introduction or PSC 102* or Principles of Microeconomics or ECO 102 or Principles of Microeconomics or ECO 1100 or Principles of Microeconomics or Pinciples of Macroeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language** **Intermediate Foreign Language** **Intermediate For		6 hours 6 hours B	Humanities and Fine A	Arts from at least two specific discipline Sciences from at least two specific disc	s and iplines.	
Select 6 hours from at least two specific disciplines. ENG 210 or Survey British Lit: Beginnings - 1784 or ENG 211 or Survey British Lit: Romantic-Present or ENG 211 or Survey American Lit: Beginnings - 1865 or ENG 221 or Survey American Lit: Beginnings - 1865 or ENG 222 or Survey American Lit: 1865-Present or ENGLISH 1221 or American Literature: 1865 to Present or ENGLISH 1222 or American Literature: 1865 to Present or ENGLISH 1222 or American Literature: 1865 to Present or ENGLISH 1231 or World Literature: 1865 to Present or ENGLISH 1231 or World Literature: 1865 to Present or ENGLISH 1231 or World Literature: 1865 to Present or ENGLISH 1231 or World Literature: 1865 to Present or ENGLISH 1231 or World Literature: 1865 to Present or ENGLISH 1231 or World Literature: 1865 to Present or ENGLISH 1231 or World Literature: 1865 to Present or ENGLISH 1231 or World Literature: 1865 to Present or ENGLISH 1231 or World Literature: 1865 to Present or ENGLISH 1231 or World Literature: 1865 to Present or ENGLISH 1231 or World Literature: 1865 to Present or ENGLISH 1232 or American Literature: 1865 to Present or ENGLISH 1232 or American Literature: 1865 to Present or ENGLISH 1232 or American Literature: 1865 to Present or ENGLISH 1232 or American Literature: 1865 to Present or ENGLISH 1232 or American Literature: 1865 to Present or ENGLISH 1232 or American Literature: 1865 to Present or ENGLISH 1232 or American Literature: 1865 to Present or ENGLISH 1232 or American Literature: 1865 to Present or ENGLISH 1232 or American Literature: 1865 to Present or ENGLISH 1232 or American Literature: 1865 to Present or ENGLISH 1232 or American Literature: 1865 to Present or ENGLISH 1232 or American Literature: 1865 to Present or ENGLISH 1232 or American Literature: 1865 to Present or ENGLISH 1232 or American Literature: 1865 to Present or ENGLISH 1232 or American Literature: 1865 to Present or ENGLISH 1232 or American Literature: 1865 to Present or ENGLISH 1232 or American Literature: 1865 to Present or ENGLISH 1232 or American Liter		At least one course must be selected from the			State of Missouri government requirement.	
ENG 210 or Survey British Lit: Beginnings - 1784 or Survey British Lit: Romantic-Present or Survey British Lit: Romantic-Present or Survey American Lit: Beginnings - 1865 or ENG LISH 1212 or Survey American Lit: Beginnings - 1865 or ENG LISH 1221 or Survey American Lit: 1865-Present or ENG LISH 1222 or Survey American Lit: 1865-Present or ENG LISH 1222 or American Lit: 1865 to Present or ENG LISH 1221 or World Literature I or US History to 1877* or 6 HISTORY 1300* or HISTORY 1300* or US History Since 1877* or 6 HISTORY 1300* or American History to 1877* or ART 1180 or ART 1180 or ART 1180 or Music Appreciation or Music Appreciation or Music Appreciation or HIET 101 Theatre Appreciation or HISTORY 1300* or HISTORY 1100 or Satisfies the State of Missouri government requirement. **Behavioral and Social Sciences** **Select 6 hours from at least two specific disciplines.** **CV 201 or Western Civilization I or World Geography or HISTORY 1100 or HISTORY 1100 or PHIL 1110 or Intro to Philosophy or HISTORY 1200* or PHIL 1115 or Logic and Reasoning: An Introduction or American Government* or HISTORY 1100 or Logic and Reasoning: An Introduction or American Government* or HISTORY 1100 or Logic and Reasoning: An Introduction or Phinciples of Microeconomics or ECO 102 or Principles of Microeconomics or ECO 101 or Principles of Microeconomics or Econ 101 and guage** **ENGLISH 1221 or ENGLISH 1221 or American Literature: 1808 to 1865 or American Literature: 1808 to 1865 or American History to 1877* or American Literature: 1808 to 1865 or American History to 1877* or Art 1800 or Principles of Microeconomics or Econ 1100 or Principles of Microeconomics or Econ 1100 or Principles						
Select 6 hours from at least two specific disciplines. CIV 201 or Western Civilization I or HISTORY 1100 or Western Civilization I or HISTORY 1200* or Western Civilization II* or HISTORY 2110 or World Geography or HISTORY 2110 or World Regional Geography or World From Intro to Philosophy or PHL 101 or Intro to Philosophy or PHL 1105 or Self and World: Intro to Philosophy or PHL 1115 or Logic or PHIL 1115 or Logic and Reasoning: An Introduction or PSC 102* or US Government I: National and State* or 6 POL SCI 1200* or PSY 101 ir General Psychology or PSY 101 ir General Psychology or PSY 101 or Principles of Microeconomics or PSC 102 or Principles of Microeconomics or ECO 102 or Principles of Macroeconomics or ECO 101 or Principles of Macroeconomics or ECO 101 or Principles of Macroeconomics or Elementary or Intermediate Foreign Language Elementary or Intermediate Foreign Language	ENG 211 or ENG 221 or ENG 222 or ENG 124 or HST 101* or HST 100* or ART 101 or MUS 101 or	Survey British Lit: Romantic-Present or Survey American Lit: Beginnings - 1865 or Survey American Lit: 1865-Present or World Literature I or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Theatre Appreciation		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 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	6
CIV 201 or Western Civilization I or HISTORY 1100 or Barly Western Civilization or Western Civilization II* or HISTORY 1200* or World Regional Geography or HISTORY 2100 or World Regional Geography or World Regional Geography or PHL 101 or Intro to Philosophy or PHL 1105 or Self and World: Intro to Philosophy or PHL 1115 or Logic and Reasoning: An Introduction or PSC 102* or US Government I: National and State* or 6 POL SCI 1200* or PSY 101 ir General Psychology or PSY 101 ir General Psychology or PSY 101 or Principles of Microeconomics or ECON 1100 or Principles of Microeconomics or ECON 100 or Principles of Macroeconomics or Foreign Language Elementary or Intermediate Foreign Language HISTORY 1100 or Modern Western Civilization or Modern Western Civilization or Modern Western Civilization or Modern Western Civilization or Modern Western Civilization* or Self and World Regional Geography or Self and World Regional Geograp						
· · · · · · · · · · · · · · · · · · ·	CIV 202* or GRY 101 or PHL 101 or PHL 111 or PSC 102* or PSY 101 ir ECO 102 or ECO 101 or	Western Civilization II* or World Geography or Intro to Philosophy or Intro to Logic or US Government I: National and State* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or	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	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
			32			34 27 s* 61

	Nuclear Engine	ering	Group 2	Major Red	quirements	
	East Central College		Semester		Missouri S&T	
EGR 103	Intro to Engineering Design	3		ECH ENG 1720	Intro to Engineering Design	3
ENG 102 or ENG 104 or COM 110	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 111	General Chemistry I and Lab	5	CH	HEM 1310, 1319	General Chemistry I and Lab	5
EGR 221,222	C++ Program Engineers and Lab	4		OMP SCI 1971,1981	Intro to Programming Method and Lab (C++)	3
MTH 241	Linear Algebra	3	M	ATH 3108	Linear Algebra	3
EGR 203	Engineering Mechanics-Statics	3		V ENG 2200	Engineering Mechanics-Statics	3
MTH 242	Engineering Statistics	3		AT 3115	Engineering Statistics	3
EGR 231	Intro to Circuit Theory	3		E 2800 ral Education Requir	Electrical Circuits	3
	6 hours Human	ities and Fine ral and Social Y 1200, 1300,	Arts from at least Sciences from at , 1310, or POL SC	•	and lines.	
	Salac		anities and Fine m at least two sp			
ENG 210 or ENG 211 or ENG 221 or ENG 222 or ENG 124 or HST 101* or HST 102* or ART 101 or MUS 101 or THE 101	Survey British Lit: Beginnings - 1784 or Survey British Lit: Romantic-Present or Survey American Lit: Beginnings - 1865 or Survey American Lit: 1865-Present or World Literature I or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Theatre Appreciation *Satisfies the State of Missouri government requirement.	6	EN EN EN HI HI AF MI	NGLISH 1211 or NGLISH 1212 or NGLISH 1221 or NGLISH 1222 or NGLISH 1222 or NGLISH 1231 or STORY 1300* or STORY 1310* or ST 1180 or USIC 1150 or HEATRE 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 General Education Humanities and Fine Arts Requirement. *Satisfies the State of Missouri government requirement.	6
			ral and Social S			
		t 6 hours fro		ecific disciplines.		
ECO 102 or ECO 101	Principles of Microeconomics or Principles of Macroeconomics	3		CON 1100 or CON 1200	Principles of Microeconomics or Principles of Macroeconomics	3
CIV 201 or CIV 202* or GRY 101 or PHL 101 or PHS 111 or PSC 102* or PSY 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography or Intro to Philosophy or Intro to Logic or US Government I: National and State* or General Psychology or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3	HI HI PH PH PC PS	STORY 1100 or STORY 1200* or STORY 2110 or IIL 1105 or IIL 1115 or DL SCI 1200* or SYCH 1101 or reign 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 Satisfes General Education Behavioral and Social Sciences Requirement. *Satisfies the State of Missorii government requirement.	3
			, 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.	art, 3		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
	Maximum Free Electives	0			Maximum Free Electives	0
	Group 2 Major Requirements	42 32			Group 2 Major Requirements	41
	Group 1 Core Requirements	32 Hours 74			Group 1 Core Requirements Total Hours*	27 68
	i otai	nours 74			"S&T advisor permission is required to transfer more than 69 credits toward the S&T Nuclear Engineering degree.	00

			Group 2 Major Re		
	East Central College		<u>Semester</u>	Missouri S&T	
ENG 102 or ENG 104 or COM 110	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 111	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
GEO 101	Intro to Physical Geology	3	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
EGR 203	Engineering Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 214	Engineering Mechanics-Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
	From the opti 6 hours Humar	ons listed in ea nities and Fine A oral and Social S	Sciences General Education Requir ach group below, select 15 hours to incl Arts from at least two specific disciplines Sciences from at least two specific discip 1310, or POL SCI 1200 to satisfy the S	lude and lines.	
			nities and Fine Arts		
ENG 210 or ENG 211 or ENG 221 or ENG 222 or ENG 124 or HST 101* or	Survey British Lit: Beginnings - 1784 or Survey British Lit: Romantic-Present or Survey American Lit: Beginnings - 1865 or Survey American Lit: 1865-Present or World Literature I or	6	n at least two specific disciplines. ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300° 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	6
HST 101 or HST 102* or ART 101 or MUS 101 or THE 101	US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Theatre Appreciation *Satisfies the State of Missouri government requirement.	Ü	HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change *Satisfies the State of Missouri government requirement.	Ü
	0.1		al and Social Sciences		
CIV 201 or CIV 202* or GRY 101 or PHL 101 or PHL 111 or PSC 102* or PSY 101 ir ECO 102 or ECO 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography or Intro to Philosophy or Intro to Logic or US Government I: National and State* 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	n at least two specific disciplines. 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
		Ś	Arts, and Social Sciences Select 3 hours.		
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
	No free electives applied to the degree. Group 2 Major Requirements	0 32		Maximum Free Electives Group 2 Major Requirements	0 31
	Group 1 Core Requirements	32 32 Il Hours 64		Group 2 major requirements Group 1 Core Requirements *S&T advisor permission is required to transfer more than 69 credits toward the S&T Petroleum Engineering degree.	27 58