Rend Lake 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.

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.

	Rend Lake College	Seme	ster	Missouri S&T		
MATH 1121	Calculus and Analytic Geometry I	5	MATH 1214	Calculus I Grade of C or better is required.		4
MATH 2122	Calculus and Analytic Geometry II	5	MATH 1215	Calculus II Grade of C or better is required.		4
MATH 2123	Calculus and Analytic Geometry III	4	MATH 2222	Calculus III Grade of C or better is required.		4
MATH 2130	Differential Equations	3	MATH 3304	Elementary Differential Equations		3
PHY 1103	University Physics I	5	PHYSICS 1135	Engineering Physics I Grade of C or better is required.		4
PHY 1104	University Physics II	5	PHYSICS 2135	Engineering Physics II Grade of C or better is required.		4
ENGL 1101	Rhetoric and Composition	3	ENGLISH 1120	Exposition and Argumentation		3
		Total Hours 30			Total Hours	26

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 En	gineerin	g Grou	ıp 2 Major R	Requirements	
	Rend Lake College		Semeste	r	Missouri S&T	
ENGL 1102 or COMM 1101	Rhetoric and Composition II or Principles of Effective Public Speaking	3		ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 1103	Inorganic Chemistry	5		CHEM 1310*, 1319	General Chemistry I and Lab "CHEM 1310 will be substituted for CHEM 1305.	5
PHY 2121 PHY 2101	Electrical Engineering Circuits Statics	4 3		ELEC ENG 2800 CIV ENG 2200	Electrical Circuits Engineering Mechanics-Statics	3
MATH 2108	Linear Algebra	3		MATH 3108	Linear Algebra I Satisfies the Advanced Math/Comp Sci elective requirement.	3
Ethics	Ethics Elective Engineering, business, bio, social or other ethics approved by advisor.	3		Ethics eneral Education Requ	Ethics Elective Engineering, business, bio, social or other ethics approved by advisor.	3
	6 hours I	Humanities and Fine ehavioral and Socia STORY 1200, 1300	Arts from at I I Sciences from	•	es and ciplines.	
				o specific disciplines.		
ENGL 2109 or ENGL 2110 or ENGL 2111 or ENGL 2112 or HIST 2101* or HIST 2102* or ART 1101 or MUSI 1100	British Literature-Beowulf to 1799 or British Literature-1800 to Present or American Literature to 1865 or American Literature, 1865 to Present or American History I* or American History II* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation "Satisfies the State of Missouri government requirement.	6
			ral and Soci			
HIST 1101 or HIST 1102* or GEOG 1101 or PHIL 1101 or PHIL 2101 or POLI 2101* or PSYC 2101 or ECON 2102 or ECON 2101 or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy or Logic or American Government* or Intro to Psychology or Principles of Economics II or Principles of Economics I or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	Select 6 hours fro	m at least tw	o specific disciplines. HISTORY 1100 or HISTORY 2100* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government*or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6
		Humanities	, Arts, and S Select 3 hou	ocial Sciences		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any hi music, theater, English and technical communicatic philosophy, political science, psychology, economic etymology, or foreign language.	on,		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	0 36 30 Total Hours 66			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 35 26 61

	Architectural E	ngineeri	ng Gro	up 2 Major	Requirements		
	Rend Lake College		Semester	•	Missouri S&T		
ENGL 1102 or COMM 1101	Rhetoric and Composition II or Principles of Effective Public Speaking	3		ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.		3
CHE 1103	Inorganic Chemistry	5		CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.		5
PHY 2101	Statics	3		CIV ENG 2200	Engineering Mechanics-Statics		3
PHY 2102	Dynamics	3		MECH ENG 2350	Engineering Mechanics-Dynamics		2
	From the 6 hours	ne options listed in Humanities and Fi ehavioral and Soc ISTORY 1200, 130	n each group be ne Arts from at le ial Sciences fron 00, 1310, or POL	•	clude s and plines.		
			manities and F	ine Arts o specific disciplines.			
ENGL 2109 or ENGL 2110 or ENGL 2111 or ENGL 2112 or HIST 2102* or ART 1101 or MUSI 1100	British Literature-Beowulf to 1799 or British Literature-1800 to Present or American Literature to 1865 or American Literature, 1865 to Present or American History I* or American History II* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300° or HISTORY 1310° or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.		6
	Calast Char		ioral and Socia		DV 4000		
HIST 1102*	Western Civilization II* *Satisfies the State of Missouri Government requirement.	rs from at least t	wo specific disc	iplines to include HISTO HISTORY 1200*	Modern Western Civilization* *Satisfies the State of Missouri Government requirement.		3
PHIL 1101 or PHIL 2101 or POLI 2101* or PSYC 2101 or ECON 2102 or ECON 2101 or Foreign Language	Intro to Philosophy or Logic or American Government* or Intro to Psychology or Principles of Economics II or Principles of Economics I or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	з		PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *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	20 30 Total Hours 50)		Group 2 Major Requirements Group 1 Core Requirements *S&T advisor permission is required to transfer more than 69 credits tow Architectural Engineering degree.	Total Hours*	25 26 51

				_	-Biomanufac equirements	cturing	
	Rend Lake College			Semester		Missouri S&T	
COM 1101	Principles of Effective Public Speaking		3		SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 1103	Inorganic Chemistry		5		CHEM 1310, 1319	General Chemistry I and Lab	5
CHE 1104	Qualitative Analysis and Inorganic Chemistry		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
CHE 2120	Organic Chemistry I		5		CHEM 2210, 2219	Organic Chemistry I and Lab	4
CHE 2121 or BIO 1101	Organic Chemistry II or College Biology		5		CHEM 2220, 2229 or BIO SCI 1113, 1219	Organic Chemistry II and Lab or General Biology and Lab Applies to degree as Track Elective.	4
					neral Education Require		
	6 hours H	umanities and F 3 hours	ine a	Arts from at le	elow, select 9 hours to inclu- east two specific disciplines a social Sciences.	and	
	*At least one course must be selected from HIS			nities and Fi	•	ate of Missouri government requirement.	
					specific disciplines.		
ENGL 2109 or ENGL 2110 or ENGL 2111 or ENGL 2112 or HIST 2101* or HIST 2102* or ART 1101 or MUSI 1100	British Literature-Beowulf to 1799 or British Literature-1800 to Present or American Literature to 1865 or American Literature, 1865 to Present or American History I* or American History II* or Art Appreciation or Music Appreciation 'Satisfies the State of Missouri government requirement.		6	at loadt tile	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1800 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation "Satisfies the State of Missouri government requirement.	6
		Beha		al and Socia			
HIST 1101 or HIST 1102* or GEOG 1101 or POLI 2101* or PSYC 2101 or ECON 2102 or ECON 2101 or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or American Government* or Intro to Psychology or Principles of Economics II or Principles of Economics I or Elementary or Intermediate Foreign Language 'Satisfies the State of Missouri government requirement.		3	Select 3 hour	S. 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
	No free electives applied to the degree. Group 2 Major Requirements Group 1 Core Requirements	3	0 32 30 62			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 28 26 54

			gineering-B ajor Requir		ials		
	Rend Lake College		Semester		Missouri S&T		
COM 1101	Principles of Effective Public Speaking	3	SP&MS 1	1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	;	3
CHE 1103	Inorganic Chemistry	5	CHEM 13	310, 1319	General Chemistry I and Lab		5
CHE 1104	Qualitative Analysis and Inorganic Chemistry	5	CHEM 13	320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit	L.	3
CHE 2120	Organic Chemistry I	5	CHEM 22	210, 2219*	Organic Chemistry I and Lab* *CHEM 2219 Lab applies to the degree as a Track Elective (non-engineering)		4
CHE 2121	Organic Chemistry II	5	CHEM 22	220, 2229*	Organic Chemistry II and Lab* CHEM 2229 Lab applies to the degree as a Track Elective (non-engineering).		4
BIO 1101	College Biology	5	BIO SCI 1	1113*, 1219*	General Biology* and Lab* *Applies to degree as Track Elective (Non-engineering).		4
PHY 2101	Statics	3	CIV ENG	2200	Engineering Mechanics-Statics	:	3
PHY 2121	Electrical Engineering Circuits	4	ELEC EN	IG 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 credit for ELEC ENG 2100. Applies to the degree as a Track Elective (Engine		4
		umanities and Fine 3 hours Beh TORY 1200, 1300,	each group below, select Arts from at least two spensional and Social Science 1310, or POL SCI 1200 Inities and Fine Arts	ecific disciplines ar ces.	nd		
	\$		n at least two specific d	disciplines.			
ENGL 2109 or ENGL 2110 or ENGL 2111 or ENGL 2112 or HIST 2101* or HIST 2102* or ART 1101 or MUSI 1100	British Literature-Beowulf to 1799 or British Literature-1800 to Present or American Literature to 1865 or American Literature, 1865 to Present or American History I* or American History II* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH ENGLISH ENGLISH ENGLISH HISTORY HISTORY ART 1186 MUSIC 1	1 1212 or 1 1221 or 1 1222 or / 1300* or / 1310* or 0 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 American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	ı	6
			al and Social Science	s			
HIST 1101 or HIST 1102* or GEOG 1101 or POLI 2101* or PSYC 2101 or ECON 2102 or ECON 2101 or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or American Government* or Intro to Psychology or Principles of Economics II or Principles of Economics I or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3	Select 3 hours. HISTORY HISTORY HISTORY POL SCI PSYCH 1 ECON 11 ECON 12 Foreign L	(1200* or (2110 or 1 200* or 101 or 100	Early Western Civilization or Modern Western Civilization* or World Regional Geography or American Government* or General Psychology or Principles of Microeconomics or Plinciples 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	44			Group 2 Major Requirements		39
	Group 1 Core Requirements	30 Total Hours 74			Group 1 Core Requirements To *S&T advisor permission is required to transfer more than 69 credits toward the Biomedical Engineering degree.	tal Hours* 6	26 65

	Ceramic Engi	neering	g (Group 2 Maj	or Requ	uirements	
	Rend Lake College			Semester		Missouri S&T	
ENGL 1102 or COMM 1101	Rhetoric and Composition II or Principles of Effective Public Speaking	;	3	ENGLISH 1 ^o SPMS 1185		Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
PHY 2101	Statics	:	3	CIV ENG 22	200	Engineering Mechanics-Statics	3
CHE 1103	Inorganic Chemistry		5	CHEM 1310	, 1319	General Chemistry I and Lab	5
CHE 1104	Qualitative Analysis and Inorganic Chemistry	:	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
CHE 2120	Organic Chemistry I		5	CHEM 2210	, 2219*	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
	Humanities,	Arts, and Soc	ial	Sciences General Educa	ation Requirem		
	6 hours H	lumanities and F havioral and So	ine cial	ach group below, select 19 Arts from at least two speci Sciences from at least two	fic disciplines and specific discipline	d es.	
	At least one course must be selected from his			nities and Fine Arts	Salisty life State	e of Missouri government requirement.	
				n at least two specific disc	ciplines		
ENGL 2109 or ENGL 2110 or ENGL 2111 or ENGL 2112 or HIST 2101* or HIST 2102* or ART 1101 or MUSI 1100	British Literature-Beowulf to 1799 or British Literature-1800 to Present or American Literature to 1865 or American Literature, 1865 to Present or American History I* or American History II* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.		6	ENGLISH 12 ENGLISH 12 ENGLISH 12 ENGLISH 12 HISTORY 1: HISTORY 1: ART 1180 or MUSIC 1150	211 or 212 or 221 or 222 or 300* or 310* or	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American History to 1877* or American History to 1877* or Art Appreciation or Music Understanding and Appreciation **Statifies the State of Missouri government requirement.	6
				al and Social Sciences n at least two specific disc	cinlines		
HIST 1101 or HIST 1102* or GEOG 1101 or PHIL 1101 or PHIL 2101 or POLI 2101* or PSYC 2101 or ECON 2102 or ECON 2101 or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy or Logic or American Government* or Intro to Psychology or Principles of Economics II or Principles of Economics I or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	,	6	HISTORY 1: HISTORY 1: HISTORY 2: PHILOS 110 PHILOS 111 POL SCI 12 PSYCH 110 ECON 1100 ECON 1200 Foreign Lang	100 or 200* or 110 or 155 or 15 or 00* or 1 or or or guage	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		Arts, and Social Science Select 3 hours.	es		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any his music, theater, English and technical communicatio philosophy, political science, psychology, economic etymology, or foreign language.	n,	3	HASS Electi	ive	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	3	36 30 36			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.	32 26 * 58

			Engineering or		
	Chemical Enginee	ering - Bio	chemical Engin	eering Emphasis	
	Gr	oup 2 Ma	jor Requirement	s	
	Rend Lake College		Semester	Missouri S&T	
COM 1101	Principles of Effective Public Speaking	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 1103	Inorganic Chemistry	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CHE 1104	Qualitative Analysis and Inorganic Chemistry	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
CHE 2120	Organic Chemistry I	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
CHE 2121	Organic Chemistry II	5	CHEM 2220, 2229*	Organic Chemistry II (3) and Lab* (1) CHEM 2220 will partially satisfy 3 of 9 required science elective credits. *CHEM 2229 is not an S&T degree requirement, will transfer as general elective credit.	8
	6 hours h	Humanities and Fine A ehavioral and Social S STORY 1200, 1300, 1		es and ciplines.	
			ities and Fine Arts at least two specific disciplines.		
ENGL 2109 or ENGL 2110 or ENGL 2111 or ENGL 2112 or HIST 2101* or HIST 2102* or ART 1101 or MUSI 1100	British Literature-Beowulf to 1799 or British Literature-1800 to Present or American Literature to 1865 or American Literature, 1865 to Present or American History I* or American History I* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
			l and Social Sciences		
HIST 1101 or HIST 1102* or GEOG 1101 or PHIL 1101 or POLI 2101* or PSYC 2101* or ECON 2102 or ECON 2101 or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy or Logic or American Government* or Intro to Psychology or Principles of Economics II or Principles of Economics I or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	Select 6 hours from	at least two specific disciplines. HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government*or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6
	No free electives applied to the degree.	0		Maximum Free Electives	0
	Group 2 Major Requirements Group 1 Core Requirements	35 30 Total Hours 65		Group 2 Major Requirements Group 1 Core Requirements Total Hour *S&T advisor permission is required to transfer more than 68 credits toward the S&T Chemical Engineering degree.	35 26 s* 61

	Civil Engine	ering Group	o 2 Major Req		
	Rend Lake College	<u>Seme</u>	ester	Missouri S&T	
ENGL 1102 or COMM 1101	Rhetoric and Composition II or Principles of Effective Public Speaking	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 1103	Inorganic Chemistry	5	CHEM 1310, 1319	General Chemistry I and Lab	5
PHY 2101	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHY 2102	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
	From the 6 hours H	options listed in each gro umanities and Fine Arts from navioral and Social Science TORY 1200, 1300, 1310, o	•	nclude es and eiplines.	
		Humanities a			
ENGL 2109 or ENGL 2110 or ENGL 2111 or ENGL 2112 or HIST 2101* or HIST 2102* or ART 1101 or MUSI 1100	British Literature-Beowulf to 1799 or British Literature-1800 to Present or American Literature to 1865 or American Literature, 1865 to Present or American History I* or American History I* or Art Appreciation or Music Appreciation Satisfies the State of Missouri government requirement.	select 6 hours from at lea	st two specific disciplines. ENGLISH 1211 or ENGLISH 1221 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation "Satisfies the State of Missour government requirement.	6
		Behavioral and			
HIST 1101 or HIST 1102* or GEOG 1101 or PHIL 1101 or PPIL 2101* or POLI 2101* or PSYC 2101 or ECON 2102 or ECON 2101 or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy or Logic or American Government* or Intro to Psychology or Principles of Economics II or Principles of Economics I or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	Select 6 hours from at lea	st two specific disciplines. HISTORY 1100 or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government*or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6
		Select 3			
HASS Elective	Humanities, Arts, Social Sciences Elective: Any his music, theater, English and technical communicatior philosophy, political science, psychology, economics etymology, or foreign language.	1, 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	29 30 Total Hours 59		Group 2 Major Requirements Group 1 Core Requirements Total Hour *S&T advisor permission is required to transfer more than 69 credits toward the S&T Ck Engineering degree.	

	Computer Er	ngineering	Group 2	Major Re	equirements	
	Rend Lake College		Semester		Missouri S&T	
COM 1101	Principles of Effective Public Speaking	3		IS 1185	Principles of Speech	3
CHE 1103	Inorganic Chemistry	5	CHE	M 1310, 1319	Applies to degree as Gen Ed Communication requirement. General Chemistry I and Lab	5
PHY 2101 or PHY 2102 or CHEM 2210	Statics or Dynamics or Organic Chemistry I	3	CIV I	ENG 2200 or CH ENG 2350 or M 2210	Engineering Mechanics-Statics (3) or Engineering Mechanics-Dynamics (2) or Organic Chemistry I (3) Satisfies a required enginering/science elective.	3
PHY 2121	Electrical Engineering Circuits	3	ELEC	C ENG 2100*, 2101	Circuits 1* (3) and Circuit Analysis Lab (1) *A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for ELEC ENG 2100.	4
MATH 2108	Linear Algebra	3	MAT	H 3108	Linear Algebra Satisfies a required math elective.	3
	Humaniti	es, Arts, and Social	Sciences General	Education Require		
	6 hou		Arts from at least tw Sciences from at lea 1310, or POL SCI	o specific disciplines ast two specific disciples 1200 to satisfy the St	and ines.	
			inities and Fine Ain at least two spec			
ENGL 2109 or ENGL 2110 or ENGL 2111 or ENGL 2112 or HIST 2101* or HIST 2102* or ART 1101 or MUSI 1100	British Literature-Beowulf to 1799 or British Literature-1800 to Present or American Literature to 1865 or American Literature, 1865 to Present or American History I* or American History II* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENG ENG ENG HIST HIST ART	LISH 1211 or LISH 1212 or LISH 1221 or LISH 1222 or ORY 1300* or ORY 1310* or 1180 or SIC 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 American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
			ral and Social Scient at least two spec			
HIST 1101 or HIST 1102* or GEOG 1101 or PHIL 1101 or PHIL 2101 or POLI 2101* or PSYC 2101 or ECON 2102 or ECON 2101 or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy or Logic or American Government* or Intro to Psychology or Principles of Economics II or Principles of Economics I or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	HIST HIST PHILL PHILL POL PSY ECO ECO	TORY 1100 or TORY 1200* or TORY 2110 or TORY 21100 or TORY 1100 or TORY 2100 or TOR	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 Select 3 hours.	Sciences		
ENGL 1102	Rhetoric and Composition II	3	ENG	LISH 1160	Writing and Research	3
Electives	Maximum Free Electives	3	Elect	ives	Maximum Free Electives	3
	Group 2 Major Requirements Group 1 Core Requirements	35 30 Total Hours 65			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 Computer Engineering degree.	36 26 62

	Electrical Engine	ering	Grou	p 2 Major Rec	quirements	
	Rend Lake College		Semester	1	Missouri S&T	
COM 1101	Principles of Effective Public Speaking	3		SPMS 1185	Principles of Speech	3
CHE 1103	Inorganic Chemistry	5		CHEM 1310, 1319	Applies to degree as Gen Ed Communication requirement. General Chemistry I and Lab	5
PHY 2101 and PHY 2102 BOTH of the courses above or ONE of the courses below. OR CHEM 2120	Statics and Dynamics Both courses above combined or any one of the following courses will satisfy a requengineering science elective. OR Organic Chemistry I			CIV ENG 2200 and MECH ENG 2350 BOTH of the courses above or ONE of the courses below. OR CHEM 2210	Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (2) Both ocurses above combined or any one of the following courses will satisfy a required engineering science elective. OR Organic Chemistry I (3)	3
PHY 2121	Electrical Engineering Circuits	4		ELEC ENG 2100*, 2101	Circuits I* (3) and Circuit Analysis Lab (1) *A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for ELEC ENG 2100.	4
MATH 2108	Linear Algebra	3		MATH 3108	Linear Algebra	3
	From the option 6 hours Humanit	ns listed in ies and Find al and Socia	each group be Arts from at le I Sciences fror	eneral Education Requirer elow, select 15 hours to include east two specific disciplines ar n at least two specific disciplin L SCI 1200 to satisfy the Sta	de nd es.	
		Hum	anities and F	ine Arts		
	Select	6 hours fro	m at least two	o specific disciplines.		
ENGL 2109 or ENGL 2110 or ENGL 2111 or ENGL 2112 or HIST 2101* or HIST 2102* or ART 1101 or MUSI 1100	British Literature-Beowulf to 1799 or British Literature-1800 to Present or American Literature to 1865 or American Literature, 1865 to Present or American History I* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
			ral and Socia			
HIST 1101 or HIST 1102* or GEOG 1101 or PHIL 1101 or PHIL 2101 or POLI 2101* or PSYC 2101 or ECON 2102 or ECON 2101 or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy or Logic or American Government* or Intro to Psychology or Principles of Economics II or Principles of Economics I or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6		o specific disciplines. HISTORY 1100 or HISTORY 2200* or HISTORY 2110 or PHILOS 1105 or PHILOS 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
	н	lumanities	, Arts, and S Select 3 hou	ocial Sciences rs.		
ENGL 1102	Rhetoric and Composition II	3		ENGLISH 1160	Writing and Research	3
Electives	Maximum Free Electives	6		Electives	Maximum Free Electives	6
	Group 2 Major Requirements Group 1 Core Requirements Total I	39 30 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 Electrical Engineering degree.	39 26 * 65

	Engineering Ma	anagement (Group 2 Major	Requirements	
	Rend Lake College	Sen	nester	Missouri S&T	
COM 1101	Principles of Effective Public Speaking	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 1103	Inorganic Chemistry	5	CHEM 1310, 1319	General Chemistry I and Lab	5
PHY 2121	Electrical Engineering Circuits	4	ELEC ENG 2800	Electrical Circuits	3
PHY 2101	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHY 2102	Dynamics	3 Arts and Social Scion	MECH ENG 2350 ces General Education Requ	Engineering Mechanics-Dynamics	2
	From the 6 hours	ne options listed in each g Humanities and Fine Arts for Judges and Social Science	roup below, select 15 hours to in om at least two specific discipline ces from at least two specific disc	nclude es and ciplines.	
			and Fine Arts		
		Select 6 hours from at le	east two specific disciplines.		
ENGL 2109 or ENGL 2110 or ENGL 2111 or ENGL 2112 or HIST 2101* or HIST 2102* or ART 1101 or MUSI 1100	British Literature-Beowulf to 1799 or British Literature-1800 to Present or American Literature to 1865 or American Literature, 1865 to Present or American History I* or American History II* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
			d Social Sciences		
	Select 6 ho	ours from at least two spe	cific disciplines to include PSYC	CH 1101.	
PSYC 2101	Intro to Psychology	3	PSYCH 1101	General Psychology Required	3
HIST 1101 or HIST 1102* or GEOG 1101 or PHIL 1101 or PHIL 2101 or POLI 2101* or ECON 2102 or ECON 2101 or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy or Logic or American Government* or Principles of Economics II or Principles of Economics I or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government*or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3
			and Social Sciences		
ENGL 4400	Dhataria and Commonition II		t 3 hours. ENGLISH 1160	Writing and Bassarah	,
ENGL 1102	Rhetoric and Composition II	3		Writing and Research	3
	No free electives applied to the degree. Group 2 Major Requirements Group 1 Core Requirements	0 33 30 Total Hours 63	Electives	Maximum Free Electives Group 2 Major Requirements Group 1 Core Requirements Total Hours' *S&T advisor permission is required to transfer more than 61 credits toward the S&T	0 31 26 * 61

	Environmental Er	ngineer	ing Group	2 Major	Requirements	
	Rend Lake College		Semester		Missouri S&T	
ENGL 1102 or COMM 1101	Rhetoric and Composition II or Principles of Effective Public Speaking	3		LISH 1160 or S 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 1103	Inorganic Chemistry	5	CHE	M 1310, 1319	General Chemistry I and Lab	5
CHE 1104	Qualitative Analysis and Inorganic Chemistry	5	CHE	M 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3
BIO 1101	College Biology	5	BIO	SCI 1113, 1219*	General Biology (3) and Lab* (1) *The lab is not a degree requirement, transfers as general elective credit.	3
PHY 2101	Statics	3	CIV	ENG 2200	Engineering Mechanics-Statics	3
PHY 2102	Dynamics	3	MEC	H ENG 2350	Engineering Mechanics-Dynamics	2
	Humanities, A	Arts, and Socia	Sciences General	Education Requi	irements	
		avioral and Socia	e Arts from at least tw I Sciences from at lea I, 1310, or POL SCI 1 anities and Fine Ar	st two specific discip 200 to satisfy the S	iplines.	
	9		amities and Fine Ar om at least two spec			
ENGL 2109 or ENGL 2110 or ENGL 2111 or ENGL 2112 or HIST 2101* or HIST 2102* or ART 1101 or MUSI 1100	British Literature-Beowulf to 1799 or British Literature-1800 to Present or American Literature to 1865 or American Literature, 1865 to Present or American History I* or American History II* or Art Appreciation or Music Appreciation 'satisfies the State of Missouri government requirement.	6	ENG ENG ENG ENG HIST HIST ART	LISH 1211 or LISH 1212 or LISH 1221 or LISH 1222 or ORY 1300* or ORY 1310* or 1180 or IC 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 American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
		Behavio	ral and Social Scie	nces		
		from at least tw	o specific disciplines	to include HISTO		
HIST 1102*	Western Civilization II* *Satisfies the State of Missouri Government requirement.	3	HIST	ORY 1200*	Modern Western Civilization* *Satisfies the State of Missouri Government requirement.	3
PHIL 1101 or PHIL 2101 or POLI 2101* or PSYC 2101 or ECON 2102 or ECON 2101 or Foreign Language	Intro to Philosophy or Logic or American Government* or Intro to Psychology or Principles of Economics II or Principles of Economics I or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3	PHIL POL PSY(ECO ECO	OS 1105 or OS 1115 or SCI 1200* or CH 1101 or N 1100 or N 1200 or gn 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 Miscouri government requirement.	3
	No free electives applied to the degree.	0			Maximum Free Electives	0
	Group 2 Major Requirements Group 1 Core Requirements	36 30 Total Hours 66			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.	31 26 57

	Geological En	gineer	ing Gro	up 2 Major R	equirements	
	Rend Lake College		Semeste	er	Missouri S&T	
CHE 1103	Inorganic Chemistry		5	CHEM 1310, 1319	General Chemistry I and Lab	5
PHY 2101	Statics		3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHY 2102	Dynamics		3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
	From t 6 hours	he options liste Humanities and Behavioral and S	d in each group by Fine Arts from at Social Sciences fro	General Education Requi- pelow, select 15 hours to inc least two specific disciplines om at least two specific discip DL SCI 1200 to satisfy the S	elude and olines.	
			Humanities and	Fine Arts vo specific disciplines.		
ENGL 2109 or ENGL 2110 or ENGL 2111 or ENGL 2112 or HIST 2101* or HIST 2102* or ART 1101 or MUSI 1100	British Literature-Beowulf to 1799 or British Literature-1800 to Present or American Literature to 1865 or American Literature, 1865 to Present or American History I* or American History II* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	Select 6 Hour	6	Vo Specific disciplines. ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300° or HISTORY 1310° or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
			avioral and Soc			
HIST 1101 or HIST 1102* or GEOG 1101 or PHIL 1101 or PHIL 2101 or POLI 2101* or PSYC 2101 or ECON 2102 or ECON 2101 or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy or Logic or American Government* or Intro to Psychology or Principles of Economics II or Principles of Economics I or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.		6	vo specific disciplines. HISTORY 1100 or HISTORY 2200° or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200° or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government*or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6
		Human	ities, Arts, and S Select 3 ho			
HASS Elective	Humanities, Arts, Social Sciences Elective: Any l music, theater, English and technical communica philosophy, political science, psychology, econom etymology, or foreign language.	tion,	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 Hours	0 26 30 56		Maximum Free Electives Group 2 Major Requirements 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.	0 25 26 51

	Mechanical Er	ngineerin	g Grou	ıp 2 Major F	Requirements	
	Rend Lake College		Semester		Missouri S&T	
ENGL 1102 or COMM 1101	Rhetoric and Composition II or Principles of Effective Public Speaking	3		ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as 6en Ed Communication requirement.	3
CHE 1103	Inorganic Chemistry	5		CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
PHY 2121	Electrical Engineering Circuits	4		ELEC ENG 2800	Electrical Circuits	3
PHY 2101 MATH 2108	Statics Linear Algebra	3		CIV ENG 2200 MATH 3108	Engineering Mechanics-Statics Linear Algebra I	3
WATH 2100	·		. 0-: 0-		Satisfies the Advanced Math/Statistics elective requirement.	3
	From to 6 hours	the options listed in Behavioral and Social	each group be e Arts from at le ll Sciences from	eneral Education Requelow, select 15 hours to in east two specific disciplined at least two specific disco . SCI 1200 to satisfy the	nclude es and ciplines.	
			anities and Form at least two	ine Arts specific disciplines.		
ENGL 2109 or ENGL 2110 or ENGL 2111 or ENGL 2112 or HIST 2101* or HIST 2102* or ART 1101 or MUSI 1100	British Literature-Beowulf to 1799 or British Literature-1800 to Present or American Literature to 1865 or American Literature, 1865 to Present or American History I* or American History II* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missour government requirement.	6
			oral and Socia	al Sciences specific disciplines.		
HIST 1101 or HIST 1102* or GEOG 1101 or PHIL 1101 or PHIL 2101 or POLI 2101* or PSYC 2101 or ECON 2102 or ECON 2101 or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy or Logic or American Government* or Intro to Psychology or Principles of Economics II or Principles of Economics I or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6		HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government*or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6
		Humanities	s, Arts, and So Select 3 hour	ocial Sciences		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any music, theater, English and technical communica philosophy, political science, psychology, econon etymology, or foreign language.	tion,	23/301 0 1/1001	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	33 30 Total Hours 63			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.	32 26 58

	Metallurgical Eng	jineering	g Group 2 Major	Requirements	
	Rend Lake College		Semester_	Missouri S&T	
ENGL 1102 or COMM 1101	Rhetoric and Composition II or Principles of Effective Public Speaking	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
PHY 2101	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
CHE 1103	Inorganic Chemistry	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CHE 1104	Qualitative Analysis and Inorganic Chemistry	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
CHE 2120 or PHY 2121	Organic Chemistry I (5) or Electrical Engineering Circuits (4)	5	CHEM 2210 or ELEC ENG 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 o 6 hours Hun	ptions listed in ea nanities and Fine A vioral and Social S	ciences General Education Requi ch group below, select 15 hours to incurts from at least two specific disciplines ciences from at least two specific disciplines of the common selection of the common selection of the 310, or POL SCI 1200 to satisfy the 5	clude s and olines.	
			ities and Fine Arts		
ENIOL 0400		elect 6 hours from	at least two specific disciplines.	Birthir a LTL Birthir a 1999	
ENGL 2109 or ENGL 2110 or ENGL 2111 or ENGL 2112 or HIST 2101* or HIST 2102* or ART 1101 or MUSI 1100	British Literature-Beowulf to 1799 or British Literature-1800 to Present or American Literature to 1865 or American Literature, 1865 to Present or American History I* or American History II* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1805 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation 'Satisfies the State of Missouri government requirement.	6
			I and Social Sciences		
HIST 1101 or HIST 1102* or GEOG 1101 or PHIL 1101 or PHIL 2101 or	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy or Logic or	elect 6 hours from	at least two specific disciplines. HISTORY 1100 or HISTORY 1200° or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 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	
POLI 2101* or PSYC 2101 or ECON 2102 or ECON 2101 or Foreign Language	American Government* or Intro to Psychology or Principles of Economics II or Principles of Economics I or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	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 elect 3 hours.		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any histo 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
	Maximum Free Electives	3		Maximum Free Electives	3
	Group 2 Major Requirements Group 1 Core Requirements To	39 30 otal 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 Metallurgical Engineering degree.	35 26 61

	Mining Engir	neering G	roup 2 Major Red	quirements	
	Rend Lake College		Semester	Missouri S&T	
ENGL 1102 or COMM 1101	Rhetoric and Composition II or Principles of Effective Public Speaking	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 1103	Inorganic Chemistry	5	CHEM 1310, 1319	General Chemistry I and Lab	5
PHY 2101	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHY 2102	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
	From the 6 hours H	e options listed in ea dumanities and Fine a chavioral and Social S	Sciences General Education Requipment of group below, select 12 hours to in Arts from at least two specific discipline Sciences from at least two specific discipline 712.00 to satisfy the 1310. or POL SCI 1200 to satisfy the	iclude is and iplines.	
	7.1. 10401 0110 004100 111401 20 00100104 110111 1110		nities and Fine Arts	Cuato or misocan government requirement	
			at least two specific disciplines.		
ENGL 2109 or ENGL 2110 or ENGL 2111 or ENGL 2112 or HIST 2101* or HIST 2102* or ART 1101 or MUSI 1100	British Literature-Beowulf to 1799 or British Literature-1800 to Present or American Literature to 1865 or American History I* or American History II* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300° or HISTORY 1310° or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
		Behaviora	al and Social Sciences		
		Select 6 hours from	at least two specific disciplines.		
HIST 1101 or HIST 1102* or GEOG 1101 or PHIL 1101 or PHIL 2101 or POLI 2101* or PSYC 2101 or ECON 2102 or ECON 2101 or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy or Logic or American Government* or Intro to Psychology or Principles of Economics II or Principles of Economics I or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government*or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6
	No free electives applied to the degree.	0		Maximum Free Electives	0
	Group 2 Major Requirements Group 1 Core Requirements	26 30 Total Hours 56		Group 2 Major Requirements Group 1 Core Requirements *S&T advisor permission is required to transfer more than 68 credits to Mining Engineering degree.	25 26 Total Hours* 51 ward the S&T

	Nuclear Engi	neering Gro	oup 2 Major Re	quirements	
	Rend Lake College	<u>Sem</u>	<u>ester</u>	Missouri S&T	
ENGL 1102 or COMM 1101	Rhetoric and Composition II or Principles of Effective Public Speaking	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as 6en Ed Communication requirement.	3
CHE 1103	Inorganic Chemistry	5	CHEM 1310, 1319	General Chemistry I and Lab	5
MATH 2108	Linear Algebra	3	MATH 3108	Linear Algebra	3
PHY 2101	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHY 2121	Electrical Engineering Circuits	4	ELEC ENG 2800	Electrical Circuits	3
	From the 6 hours H	options listed in each grumanities and Fine Arts fron navioral and Social Science TORY 1200, 1300, 1310,	-	clude s and iplines.	
			and Fine Arts ast two specific disciplines.		
ENGL 2109 or ENGL 2110 or ENGL 2111 or ENGL 2112 or HIST 2101* or HIST 2102* or ART 1101 or MUSI 1100	British Literature-Beowulf to 1799 or British Literature-1800 to Present or American Literature to 1865 or American Literature, 1865 to Present or American History I* or American History II* or Art Appreciation or Music Appreciation or *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300° or HISTORY 1310° or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1800 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Aft Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
			Social Sciences		
		Select 6 hours from at lea	ast two specific disciplines.		
ECON 2102 or ECON 2101	Principles of Economics II or Principles of Economics I	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3
HIST 1101 or HIST 1102* or GEOG 1101 or PHIL 1101 or PHIL 2101 or POLI 2101* or PSYC 2101 or Foreign Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy or 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 PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government*or General Psychology or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3
			and Social Sciences 3 hours.		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any his music, theater, English and technical communication philosophy, political science, psychology, economics etymology, or foreign language.	٦, ء	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
	Maximum Free Electives	0		Maximum Free Electives	0
	Group 2 Major Requirements Group 1 Core Requirements	33 30 Total Hours 63		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.	32 26 58

	Petroleum Eng	jineering (Group 2 Major R	equirements	
	Rend Lake College	9	Semester .	Missouri S&T	
ENGL 1102 or COMM 1101	Rhetoric and Composition II or Principles of Effective Public Speaking	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 1103	Inorganic Chemistry	5	CHEM 1310, 1319	General Chemistry I and Lab	5
PHY 2101	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHY 2102	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
	From the 6 hours H	e options listed in eac lumanities and Fine Ar havioral and Social So TORY 1200, 1300, 13		clude s and iplines.	
			ties and Fine Arts at least two specific disciplines.		
ENGL 2109 or ENGL 2110 or ENGL 2111 or ENGL 2112 or HIST 2101* or HIST 2102* or ART 1101 or MUSI 1100	British Literature-Beowulf to 1799 or British Literature-1800 to Present or American Literature to 1865 or American Literature, 1865 to Present or American History I* or American History II* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
			and Social Sciences		
HIST 1101 or HIST 1102* or GEOG 1101 or PHIL 1101 or PHIL 2101 or POLI 2101* or PSYC 2101 or ECON 2102 or ECON 2102 or FOREIGN Language	Western Civilization I or Western Civilization II* or Intro to Geography or Intro to Philosophy or Logic or American Government* or Intro to Psychology or Principles of Economics II or Principles of Economics I or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	at least two specific disciplines. HISTORY 1100 or HISTORY 2100* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language rts, and Social Sciences	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 Microeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6
			elect 3 hours.		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any his music, theater, English and technical communicatio philosophy, political science, psychology, economic etymology, or foreign language.	n, 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	29 30 Total Hours 59		Group 2 Major Requirements Group 1 Core Requirements Total Hour *S&T advisor permission is required to transfer more than 69 credits toward the S&T Petroleum Engineering degree.	28 26 s* 54