William Jewell 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.

	William Jewell College		Semester	-	Missouri S&T	
MAT 109 and MAT 200	Calculus I and Calculus II BOTH MAT 109 and MAT 200 must be taken to receive credit for S&T MATH 1214 and 1215.	8	MATH 1 MATH 1	1214 and 1215	Calculus I and Calculus II Grade of C or better is required. BOTH MAT 109 and MAT 200 must be taken to receive credit for S&T MATH 1214 and 1215.	8
MAT 201 and MAT 302	Calculus III and Calculus IV BOTH MAT 201 and MAT 302 must be taken to receive credit for S&T MATH 2222.	8	MATH 2		Calculus III Grade of C or better is required. BOTH MAT 201 and MAT 302 must be taken to receive credit for S&T MATH 2222.	4
MAT 202	Intro to Differential Equations	4	MATH 3	3304	Elementary Differential Equations	3
PHY 213, 213L	General Physics I and Lab	5	PHYSIC	CS 1135	Engineering Physics I Grade of C or better is required.	4
PHY 214, 214L	General Physics II and Lab	5	PHYSIC	CS 2135	Engineering Physics II Grade of C or better is required.	4
CTI 102	Written Communication	4	ENGLIS	SH 1120	Exposition and Argumentation	3
	Total Hours	34			Total Hours	s 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 Eng	ineering C	Broup 2 Major R	equirements	
	William Jewell College	Se	mester	Missouri S&T	
COM 100	Fundamentals of Speech Communication	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 121, 121L	General Chemistry I and Lab	5	CHEM 1310*, 1319	General Chemistry I and Lab "CHEM 1310 will be substituted for CHEM 1305.	5
EGR 230	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHY 443	Classical Mechanics	4	AERO ENG 2360	Dynamics	3
EGR 233	Mechanics of Solids	3	CIV ENG 2210	Mechanics of Materials	3
MAT 281	Linear Algebra	4	MATH 3108	Linear Algebra I Satisfies the Advanced Math/Comp Sci elective requirement.	3
Ethics	Ethics Elective	3	Ethics	Ethics Elective Engineering, business, bio, social or other ethics approved by advisor.	3
	Humanities, A	Arts, and Social Scie	nces General Education Requi		
			group below, select 15 hours to inc		
			from at least two specific disciplines		
	*At least one course must be selected from HIST		nces from at least two specific discip		
	At least one course must be selected from His i		es and Fine Arts	state of Missouri government requirement.	
	S		least two specific disciplines.		
ENG 340 or	Studies in English Literature I or	cicci o nouis nom at	ENGLISH 1211 or	British Literature I: The Beginnings to 1800 or	
ENG 345 or	Studies in English Literature II or		ENGLISH 1212 or	British Literature II: 1800 to Present or	
ENG 350 or	Studies in U.S. Literature I or		ENGLISH 1222 or	American Literature: 1865 to Present or	
ENG 360 or	Great Works of World Literature or	6	ENGLISH 1231 or	World Literature I: Beginnings to the Renaissance or	6
HIS 121* or	Foundations of U.S. History* or		HISTORY 1300* or	American History to 1877* or	
HIS 122* or	The Modern United States* *Satisfies the State of Missouri government requirement.		HISTORY 1310*	American History Since 1877* *Satisfies the State of Missouri government requirement.	
	,	Behavioral a	nd Social Sciences		
		elect 6 hours from at	least two specific disciplines.		
GEO 304 or	Economic Geography or		HISTORY 2110 or	World Regional Geography or	
PHI 201 or PHI 331 or	Intro to Philosophy or Symbolic Logic or		PHILOS 1105 or PHILOS 1115 or	Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or	
POL 150* or	Intro to American Government* or		POL SCI 1200* or	American Government*or	
PSY 101 or	Intro to Psychological Science or	6	PSYCH 1101 or	General Psychology or	6
ECO 101 or	Principles of Microeconomics or		ECON 1100 or	Principles of Microeconomics or	
ECO 202 or	Principles of Macroeconomics or		ECON 1200 or	Principles of Macroeconomics or	
Foreign Language	Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.		Foreign Language	Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	
	, i		s, and Social Sciences ct 3 hours.	<u> </u>	
	Humanities, Arts, Social Sciences Elective: Any histo			Humanities, Arts, Social Sciences Elective: Any history, art,	
HASS Elective	music, theater, English and technical communication	** .	HASS Elective	music, theater, English and technical communication,	3
HASS Elective	philosophy, political science, psychology, economics,	3	HASS Elective	philosophy, political science, psychology, economics,	3
	etymology, or foreign language.			etymology, or foreign language.	
	No free electives applied to the degree.	0		Maximum Free Electives	0
	Group 2 Major Requirements	40		Group 2 Major Requirements	38
	Group 1 Core Requirements	34		Group 1 Core Requirements	26
		Fotal Hours 74		Total Hours* *S&T advisor permission is required to transfer more than 68 credits toward the S&T Aerospace Engineering degree.	64

	Architectural En	gineerin	g Group 2 Major	Requirements	
	William Jewell College		<u>Semester</u>	Missouri S&T	
COM 100	Fundamentals of Speech Communication	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 121, 121L	General Chemistry I and Lab	5	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
EGR 230	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHY 443 or EGR 231	Classical Mechanics (4) or Dynamics (3)	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
EGR 233	Mechanics of Solids	3	CIV ENG 2210	Mechanics of Materials	3
MAT 301	Intro to Probability	4	STAT 3117*	Intro to Probability and Statistics* *Will be substituted for STAT 3113.	3
	From the	options listed in e manities and Fine 3 hours Beha TORY 1200, 1300,	Sciences General Education Req ach group below, select 9 hours to in Arts from at least two specific disciplina vioral and Social Sciences. 1310, or POL SCI 1200 to satisfy the littles and Fine Arts	nclude nes and	
	s		at least two specific disciplines.		
ENG 340 or ENG 345 or ENG 350 or ENG 360 or HIS 121* or HIS 122* or	Studies in English Literature I or Studies in English Literature II or Studies in U.S. Literature I or Great Works of World Literature or Foundations of U.S. History* or The Modern United States* 'Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* *Satisfies the State of Missouri government requirement.	6
			al and Social Sciences Select 3 hours.		
PHI 201 or PHI 331 or POL 150* or PSY 101 or ECO 101 or ECO 202 or Foreign Language	Intro to Philosophy or Symbolic Logic or Intro to American Government* or Intro to Psychological Science or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language 'Satisfies the State of Missouri government requirement.	3	PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *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	30 34 Fotal Hours 64		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 Architectural Engineering degree.	28 26 * 54

	Biomedical En Group 2	_	_	-Biomanufac equirements	cturing	
	William Jewell College		Semester		Missouri S&T	
COM 100	Fundamentals of Speech Communication	3		SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 121, 121L	General Chemistry I and Lab	5		CHEM 1310, 1319	General Chemistry I and Lab	5
CHE 122, 122L	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
CHE 301, 301L	Organic Chemistry I and Lab	5		CHEM 2210, 2219	Organic Chemistry I and Lab	4
CHE 301, 301L or BIO 234	Organic Chemistry I and Lab (5) or Genetics (4)	4		CHEM 2220, 2229 or BIO SCI 1113, 1219 or BIO SCI 1213*, 1219 or BIO SCI 2223	Organic Chemistry II and Lab or General Biology and Lab or Principles of Biology* or General Genetics Applies to degree as Track Elective.	4
BIO 233, 233L	Cell and Molecular Biology and Lab	5		BIO SCI 2213, 2219	Cell Biology and Lab	4
BIO 243, 243L and BIO 250, 250L	Human Anatomy and Lab (5) and Human Physiology and Lab (5) 'The combination of WJC BIO 243, 243L, 250, 250L is equivalent to the combination of Missouri SAT BIO SCI 3333, 3339, 3343, 3349. All four WJC courses must be taken to receive full transfer credit.	10		BIO SCI 3333, 3339* and BIO SCI 3343*, 3349*	Human Anatomy and Physiology II and Lab* or Human Anatomy and Physiology III* and Lab* 'The combination of WJC 8IO 243, 243L, 250, 250L is equivalent to the combination of Missouri S&T BIO SCI 3333, 3339, 3349, 3349. All four WJC courses must be taken to receive full transfer credit. BIO SCI 3333, 3343, 3349 are not Missouri S&T degree requirements. Will apply to degree totals as general elective credits per catalog requirements.	3
DTS 190	Intro to Computer Science	4		CS 1500 eneral Education Requirer	Computational Problem Solving	3
	6 hours Humanities an	nd Fine urs Bel , 1300	Arts from at le	•	nd	
	Select 6 ho			specific disciplines.		
ENG 340 or ENG 345 or ENG 350 or ENG 360 or HIS 121* or HIS 122* or	Studies in English Literature I or Studies in English Literature II or Studies in U.S. Literature I or Great Works of World Literature or Foundations of U.S. History* or The Modern United States* "Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1222 or ENGLISH 1221 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* 'Satisfies the State of Missouri government requirement.	6
	Ве	havio	ral and Social Select 3 hou			
GEO 304 or POL 150* or PSY 101 or ECO 101 or ECO 202 or Foreign Language	Economic Geography or Intro to American Government* or Intro to Psychological Science or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language "Satisfies the State of Missouri government requirement.	3	Sciect 3 flou	HISTORY 2110 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	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.	0			Maximum Free Electives	0
	Group 2 Major Requirements	50			Group 2 Major Requirements	38
	Group 1 Core Requirements Total Hours	34 84			Group 1 Core Requirements Total Hours* *S&T advisor permission is required to transfer more than 69 credit hours toward the degree.	26 64

				ing-Biomater equirements	ials	
	William Jewell College		Semeste		Missouri S&T	
COM 100	Fundamentals of Speech Communication	3		SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 121, 121L	General Chemistry I and Lab	5		CHEM 1310, 1319	General Chemistry I and Lab	5
CHE 122, 122L	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
CHE 301, 301L	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
CHE 302, 302L	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 233, 233L	Cell and Molecular Biology and Lab	5		BIO SCI 2213, 2219	Cell Biology and Lab	4
BIO 243, 243L and BIO 250, 250L	Human Anatomy and Lab (5) and Human Physiology and Lab (5) The combination of WJC BIO 243, 243L, 250, 250L is equivalent to the combination Missouri S87 BIO S01 3333, 3339, 3343, 3349. All four WJC courses must be taken receive full transfer credit.			BIO SCI 3333, 3339* and BIO SCI 3343*, 3349*	Human Anatomy and Physiology II and Lab* or Human Anatomy and Physiology III* and Lab* 'The combination of WJC 8IO 243, 243L, 250, 250L is equivalent to the combination of Missouri SAT BIO SCI 3333, 3339, 3349, 3349. All four WJC courses must be taken to receive full transfer credit. BIO SCI 3339, 3343, 3349 are not Missouri SAT degree requirements. Will apply to degree totals as general elective credits per catalog requirements.	3
DTS 190	Intro to Computer Science	4		CS 1500	Computational Problem Solving	3
EGR 230	Statics	3		CIV ENG 2200 eneral Education Require	Engineering Mechanics-Statics	3
ENG 340 or ENG 345 or ENG 350 or ENG 360 or	6 hours Humanitie 3 *At least one course must be selected from HISTORY 1	es and Fine hours Bel 200, 1300 Huma	e Arts from at I havioral and S , 1310, or PO anities and F	•	nd	6
HIS 121* or HIS 122* or	Foundations of U.S. History* or The Modern United States* *Satisfies the State of Missouri government requirement.	-		HISTORY 1300* or HISTORY 1310*	American History to 1877* or American History Since 1877* *Satisfies the State of Missouri government requirement.	0
		Benavio	ral and Social Select 3 hou			
GEO 304 or POL 150* or PSY 101 or ECO 101 or ECO 202 or Foreign Language	Economic Geography or Intro to American Government* or Intro to Psychological Science or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3	25,550 0 1100	HISTORY 2110 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	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.	0			Maximum Free Electives	0
	Group 2 Major Requirements Group 1 Core Requirements Total H	54 34 ours 88			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 Biomedical Engineering degree.	41 26 67

	Ceramic Eng	ineering	Group	2 Major Re	quirements	
	William Jewell College		Semester		Missouri S&T	
COM 100	Fundamentals of Speech Communication	3		SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
EGR 230	Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 233	Mechanics of Solids	3		CIV ENG 2210	Mechanics of Materials	3
CHE 121, 121L	General Chemistry I and Lab	5		CHEM 1310, 1319	General Chemistry I and Lab	5
CHE 122, 122L	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
CHE 301	Organic Chemistry I	4		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
MAT 305	Intro to Probability	4		STAT 3117	Intro to Probability and Statistics or any statistics course 3000-level or higher. Satisfies statistics elective requirement.	3
PHY 316	Modern Physics	4		PHYS 2305	Intro to Modern Physics	3
	From th 6 hours H 6 hours Be	e options listed in e dumanities and Fine chavioral and Social	each group be Arts from at le Sciences fron	eneral Education Requi elow, select 15 hours to in- east two specific disciplines at at least two specific disci	clude s and plines.	
	*At least one course must be selected from HI				State of Missouri government requirement.	
			anities and F	ne Arts specific disciplines.		
ENG 340 or ENG 345 or ENG 350 or ENG 360 or HIS 121* or HIS 122* or	Studies in English Literature I or Studies in English Literature II or Studies in U.S. Literature I or Great Works of World Literature or Foundations of U.S. History* or The Modern United States* *Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1222 or ENGLISH 1221 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1865 to Present or World Literature: 1865 to Present or World Literature: 18eginnings to the Renaissance or American History to 1877* or American History Since 1877* *Satisfies the State of Missouri government requirement.	6
			ral and Socia			
GEO 304 or PHI 201 or PHI 331 or POL 150° or PSY 101 or ECO 101 or ECO 202 or Foreign Language	Economic Geography or Intro to Philosophy or Symbolic Logic or Intro to American Government* or Intro to Psychological Science or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	Select 6 hours fro	m at least two	o specific disciplines. HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200° or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	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 Se Select 3 hour	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, 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	46 34 Total Hours 80			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.	41 26 * 67

					neering or		
	Chemical Engine					•	
	G	roup 2 N	Иaj	or Re	equirements		
	William Jewell College		<u>s</u>	emester		Missouri S&T	
COM 100	Fundamentals of Speech Communication		3		SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 121, 121L	General Chemistry I and Lab		5		CHEM 1310, 1319	General Chemistry I and Lab	5
CHE 122, 122L	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
CHE 301, 301L	Organic Chemistry I 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
CHE 302 or CHE 406 or BIO 233, 233L or BIO 321, 321L	Organic Chemistry II (4) or Instrumental Analysis (4) or Cell and Molecular Biology and Lab (5) or Microbiology and Lab (5) Select up to 8 hours.		8		CHEM 2220 or CHEM 2510 or BIO SCI 2213, 2219 or BIO SCI 3313, 3319	Organic Chemistry II (3) or Analytical Chemistry (4) or Cell Biology and Lab (4) or Microbiology and Lab (5) Applies to the degree as required science elective credits. Select up to 9 hours from these options or CHEM 2219 Organic Chemistry Lab.	8
DTS 190	Intro to Computer Science		4		CS 1500	Computational Problem Solving	3
MAT 301	Intro to Probability		4		STAT 3117*	Intro to Probability and Statistics* *Will be substituted for STAT 3113.	3
		Behavioral and So	cial Sc 300, 13	iences from	•	ines.	
					specific disciplines.		
ENG 340 or ENG 345 or ENG 350 or ENG 360 or HIS 121* or HIS 122* or	Studies in English Literature I or Studies in English Literature II or Studies in U.S. Literature I or Great Works of World Literature or Foundations of U.S. History* or The Modern United States* *Satisfies the State of Missouri government requirement.		6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* "Satisfies the State of Missouri government requirement.	6
					I Sciences		
GEO 304 or PHI 201 or PHI 331 or POL 150* or PSY 101 or ECO 101 or ECO 202 or Foreign Language	Economic Geography or Intro to Philosophy or Symbolic Logic or Intro to American Government* or Intro to Psychological Science or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.		from a	ieast two	specific disciplines. HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	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 1 Gara Requirements		46 34			Group 2 Major Requirements	41
	Group 1 Core Requirements		34 30			Group 1 Core Requirements Total Hours* *S&T advisor permission is required to transfer more than 68 credits toward the S&T Chemical Engineering degree.	26 67

	Civil Engine	ering G	roup 2	Major Requ	uirements	
	William Jewell College		Semester		Missouri S&T	
COM 100	Fundamentals of Speech Communication	3		SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 121, 121L	General Chemistry I and Lab	5		CHEM 1310, 1319	General Chemistry I and Lab	5
EGR 230	Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
PHY 443 or EGR 231	Classical Mechanics (4) or Dynamics (3)	3		MECH ENG 2350	Engineering Mechanics-Dynamics	2
EGR 233	Mechanics of Solids	3		CIV ENG 2210	Mechanics of Materials	3
MAT 301	Intro to Probability	4		STAT 3117*	Intro to Probability and Statistics* *Will be substituted for STAT 3113.	3
	From the 6 hours Hu	options listed in e umanities and Fine navioral and Social TORY 1200, 1300,	each group be Arts from at le Sciences fron 1310, or POL		clude s and plines.	
			nities and F	ine Arts o specific disciplines.		
ENG 340 or ENG 345 or ENG 350 or ENG 360 or HIS 121* or HIS 122* or	Studies in English Literature I or Studies in English Literature II or Studies in U.S. Literature I or Studies in U.S. Literature I or Great Works of World Literature or Foundations of U.S. History* or The Modern United States* Satisfies the State of Missouri government requirement.	6	in at loadt till	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1212 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* Satisfies the State of Missouri government requirement.	6
			ral and Socia	al Sciences o specific disciplines.		
GEO 304 or PHI 201 or PHI 331 or POL 150* or PSY 101 or ECO 101 or ECO 202 or Foreign Language	Economic Geography or Intro to Philosophy or Symbolic Logic or Intro to American Government* or Intro to Psychological Science or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	at loast we	HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	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 So Select 3 hour	ocial Sciences		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any hist music, theater, English and technical communication 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	36 34			Group 2 Major Requirements	34 26
	·	Total Hours 70			Group 1 Core Requirements Total Hours* *S&T advisor permission is required to transfer more than 69 credits toward the S&T Civil Engineering degree.	60

	Computer En	gineering	g Grou	p 2 Major R	equirements	
	William Jewell College		Semeste	r	Missouri S&T	
COM 100	Fundamentals of Speech Communication	3		SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 121, 121L	General Chemistry I and Lab	5		CHEM 1310, 1319	General Chemistry I and Lab	5
DTS 190 EGR 230 or PHY 443 or EGR 231 or CHE 301 or BIO 233 or PHY 316	Intro to Computer Science Statics (3) or Classical Mechanics (4) or Dynamics (3) or Organic Chemistry I (4) or Cell and Molecular Biology (4) or Modern Physics (4)	3		CS 1500 CIV ENG 2200 or MECH ENG 2350 or CHEM 2210 or BIO SCI 2213 or PHYSICS 2305	Computational Problem Solving Engineering Mechanics-Statics (3) or Engineering Mechanics-Dynamics (2) or Organic Chemistry I (4) or Cell Biology (3) or Modern Physics (3) Satisfies a required engineering/science elective.	3
MAT 281	Linear Algebra	4		MATH 3108	Linear Algebra Will satisfy a required math elective.	3
MAT 305	Intro to Probability	4		STAT 3117	Intro to Probability and Statistics	3
	6 hours	Humanities and Fin Behavioral and Social ISTORY 1200, 130	e Arts from at I al Sciences from		s and iplines.	
				o specific disciplines.		
ENG 340 or ENG 345 or ENG 350 or ENG 360 or HIS 121* or HIS 122* or	Studies in English Literature I or Studies in English Literature II or Studies in U.S. Literature I or Great Works of World Literature or Foundations of U.S. History* or The Modern United States* 'Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present 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* *Satisfies the State of Missouri government requirement.	6
		Behavio	oral and Soci	al Sciences		
		Select 6 hours from	om at least tw	o specific disciplines.		
GEO 304 or PHI 201 or PHI 331 or POL 150° or PSY 101 or ECO 101 or ECO 202 or Foreign Language	Economic Geography or Intro to Philosophy or Symbolic Logic or Intro to American Government* or Intro to Psychological Science or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6		HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	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
Electives	Maximum Free Electives	3		Electives	Maximum Free Electives	3
	Group 2 Major Requirements Group 1 Core Requirements	38 34 Total Hours 72			Group 2 Major Requirements Group 1 Core Requirements Total Hours' *\$&T advisor permission is required to transfer more than 68 credits toward the \$&T Computer Engineering degree.	35 26 * 61

	Electrical Enginee	ring	Group	2 Major Red	quirements	
	William Jewell College		Semester		Missouri S&T	
COM 100	Fundamentals of Speech Communication	3		SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 121, 121L	General Chemistry I and Lab	5		CHEM 1310, 1319	General Chemistry I and Lab	5
DTS 190	Intro to Computer Science	4		CS 1500	Computational Problem Solving	3
EGR 230 and PHY 443 or EGR 231 BOTH of the courses above or ONE of the courses below. OR PHY 316 or CHE 301 or	Statics (3) and Classical Mechanics (4) or Dynamics (3) Both courses above combined or any one of the following courses will satisfy a require engineering science elective. OR Modern Physics (4) or Organic Chemistry I (4) or	4		CIV ENG 2200 and MECH ENG 2350 SOTH of the courses above or ONE of the courses below. OR PHYSICS 2305 or CHEM 2210 or BIO SCI 2213	Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (2) Both courses above combined or any one of the following courses will satisfy a required engineering science elective. OR Intro to Modern Physics (3) or Organic Chemistry I (3) or Cell Biology (3) or	3
BIO 233 MAT 281	Cell and Molecular Biology (4) Linear Algebra	4		MATH 3108	Linear Algebra I	3
MAT 305	Intro to Probability	4		STAT 3117	Intro to Probability and Statistics	3
WAT 303	•			eral Education Requiren		3
	6 hours Humanities	and Fine and Social 200, 1300	Arts from at least Sciences from a 1310, or POL 5	•	nd es.	
	Select 6		inities and Fin m at least two :	e Arts specific disciplines.		
ENG 340 or ENG 345 or ENG 350 or ENG 360 or HIS 121* or HIS 122* or	Studies in English Literature I or Studies in English Literature II or Studies in U.S. Literature I or Great Works of World Literature or Foundations of U.S. History* or The Modern United States* *Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* **Satisfies the State of Missouri government requirement.	6
	· · · · · · · · · · · · · · · · · · ·	Behavio	ral and Social	Sciences	· · · · · · · · · · · · · · · · · · ·	
		hours fro		specific disciplines.		
GEO 304 or PHI 201 or PHI 331 or POL 150* or PSY 101 or ECO 101 or ECO 202 or Foreign Language	Economic Geography or Intro to Philosophy or Symbolic Logic or Intro to American Government* or Intro to Psychological Science or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6		HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200° or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	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
Electives	Maximum Free Electives	6		Electives	Maximum Free Electives	6
	Group 2 Major Requirements Group 1 Core Requirements Total Ho	42 34 urs 76			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.	38 26 64

	Engineering Ma	nageme	ent Gro	up 2 Major	Requirements	
	William Jewell College		Semester	r	Missouri S&T	
COM 100	Fundamentals of Speech Communication	3		SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 121, 121L	General Chemistry I and Lab	5		CHEM 1310, 1319	General Chemistry I and Lab	5
EGR 230	Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
PHY 443 or EGR 231	Classical Mechanics (4) or Dynamics (3)	3		MECH ENG 2350	Engineering Mechanics-Dynamics	2
EGR 233	Mechanics of Solids	3		CIV ENG 2210	Mechanics of Materials	3
MAT 305	Intro to Probability	4		STAT 3117	Intro to Probability and Statistics	3
	6 hours I	lumanities and Fi havioral and Soc STORY 1200, 130	ne Arts from at le ial Sciences from 10, 1310, or POI	•	es and ciplines.	
			nanities and F	ine Arts o specific disciplines.		
ENG 340 or ENG 345 or ENG 350 or ENG 360 or HIS 121* or HIS 122* or	Studies in English Literature I or Studies in English Literature II or Studies in U.S. Literature I or Great Works of World Literature or Foundations of U.S. History* or The Modern United States* *Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* *Satisfies the State of Missouri government requirement.	6
	Select 6 ho		oral and Sociative specific dis	ai Sciences sciplines to include PSY	CH 1101	
PSY 101	Intro to Psychological Science	4		PSYCH 1101	General Psychology Required	3
GEO 304 or PHI 201 or PHI 331 or POL 150° or ECO 101 or ECO 202 or Foreign Language	Economic Geography or Intro to Philosophy or Symbolic Logic or Intro to American Government* or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3		ISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or ECON 1100 or ECON 1200 or Foreign Language	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
	No free electives applied to the degree.	0		Electives	Maximum Free Electives	0
	Group 2 Major Requirements	34			Group 2 Major Requirements	31
	Group 1 Core Requirements	34 Total Hours 68			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.	26 61

	Environmental Er	ngineerir	ng Group 2 Major	Requirements	
	William Jewell College		<u>Semester</u>	Missouri S&T	
COM 100	Fundamentals of Speech Communication	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 121, 121L	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CHE 122	General Chemistry II	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3
EGR 230	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHY 443 or EGR 231	Classical Mechanics (4) or Dynamics (3)	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
EGR 233	Mechanics of Solids	3	CIV ENG 2210	Mechanics of Materials	3
MAT 301	Intro to Probability	4	STAT 3117	Intro to Probability and Statistics Will be substituted for STAT 3113.	3
ENG 340 or	6 hours Hul	manities and Fine A 3 hours Beha ORY 1200, 1300, 1 Humar	ach group below, select 9 hours to inc Arts from at least two specific disciplines avioral and Social Sciences. 1310, or POL SCI 1200 to satisfy the s nities and Fine Arts and least two specific disciplines. ENGLISH 1211 or	s and	
ENG 345 or ENG 350 or ENG 360 or HIS 121* or HIS 122* or	Studies in English Literature II or Studies in English Literature II or Studies in U.S. Literature I or Great Works of World Literature or Foundations of U.S. History* or The Modern United States* 'Satisfies the State of Missouri government requirement.	6	ENGLISH 1212 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature II: 1800 to Present or American Literature: 1865 to Present or World Literature: 1865 to Present or World Literature: 1865 to Present or American History to 1877* or American History Since 1877* *Satisfies the State of Missouri government requirement.	6
			al and Social Sciences		
PHI 201 or PHI 331 or POL 150* or PSY 101 or ECO 101 or ECO 202 or Foreign Language	Intro to Philosophy or Symbolic Logic or Intro to American Government* or Intro to Psychological Science or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3	Select 3 hours. 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	34 34		Group 2 Major Requirements Group 1 Core Requirements	31 26
		otal Hours 68		Total Hours* *S&T advisor permission is required to transfer more than 69 credits toward the S&T Environmental Engineering degree.	-

	Geological Eng	ineerin	g Grou	ıp 2 Major R	Requirements	
	William Jewell College		Semeste	r	Missouri S&T	
CHE 121, 121L	General Chemistry I and Lab	5		CHEM 1310, 1319	General Chemistry I and Lab	5
DTS 190	Intro to Computer Science	4		CS 1500	Computational Problem Solving	3
EGR 230	Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
PHY 443 or EGR 231	Classical Mechanics (4) or Dynamics (3)	3		MECH ENG 2350	Engineering Mechanics-Dynamics	2
EGR 233	Mechanics of Solids	3		CIV ENG 2210	Mechanics of Materials	3
MAT 301	Intro to Probability	4		STAT 3117*	Intro to Probability and Statistics* *STAT 3117 will be substituted for the statistics requirement.	3
	From the 6 hours Hu	options listed ir imanities and Fir avioral and Soci FORY 1200, 130	each group b ne Arts from at al Sciences fro	•	clude s and iplines.	
	S			o specific disciplines.		
ENG 340 or ENG 345 or ENG 350 or ENG 360 or HIS 121* or HIS 122* or	Studies in English Literature I or Studies in English Literature II or Studies in U.S. Literature I or Great Works of World Literature or Foundations of U.S. History* or The Modern United States* *Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* Statisfes the State of Missouri government requirement.	6
			oral and Soci		· ·	
GEO 304 or PHI 201 or PHI 331 or POL 150° or PSY 101 or ECO 101 or ECO 202 or Foreign Language	Economic Geography or Intro to Philosophy or Symbolic Logic or Intro to American Government* or Intro to Psychological Science or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6		o specific disciplines. HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	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
		Humanitie	s, Arts, and S Select 3 hou	Social Sciences		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any hist music, theater, English and technical communication philosophy, political science, psychology, economics, etymology, or foreign language.	, 3		HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
	No free electives applied to the degree.	0			Maximum Free Electives	0
	Group 2 Major Requirements	37			Group 2 Major Requirements	34
	Group 1 Core Requirements -	34 Total Hours 71			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.	26 60

	Mechanical Eng	gineering	g Group 2 Major	Requirements	
	William Jewell College		Semester	Missouri S&T	
COM 100	Fundamentals of Speech Communication	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 121, 121L	General Chemistry I and Lab	5	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
EGR 230 PHY 443	Statics Classical Mechanics	3 4	CIV ENG 2200 AERO ENG 2360	Engineering Mechanics-Statics Dynamics	3
EGR 233	Mechanics of Solids	3	CIV ENG 2210	Mechanics of Materials	3
MAT 281	Linear Algebra	4	MATH 3108	Linear Algebra I Satisfies the Advanced Math/Statistics elective requirement.	3
	From the 6 hours Hu	options listed in eaumanities and Fine navioral and Social	Sciences General Education Re ach group below, select 15 hours t Arts from at least two specific discip Sciences from at least two specific 1310, or POL SCI 1200 to satisfy	o include lines and disciplines.	
	c		nities and Fine Arts n at least two specific disciplines.		
ENG 340 or ENG 345 or ENG 350 or ENG 360 or HIS 121* or HIS 122* or	Studies in English Literature I or Studies in English Literature II or Studies in U.S. Literature I or Great Works of World Literature or Foundations of U.S. History* or The Modern United States* "Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1865 to Present or World Literature: 1865 to Present or World Literature: 1865 to Present or American History to 1877* or American History Since 1877* *Satisfies the State of Missouri government requirement.	6
			al and Social Sciences		
GEO 304 or PHI 201 or PHI 331 or POL 150* or PSY 101 or ECO 101 or ECO 202 or Foreign Language	Economic Geography or Intro to Philosophy or Symbolic Logic or Intro to American Government* or Intro to Psychological Science 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 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	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 hist music, theater, English and technical communication philosophy, political science, psychology, economics etymology, or foreign language.	ory, art,	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 37 34 Total Hours 71		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 Mechanical Engineering degree.	0 35 26 s* 61

	Metallurgical Eng	gineering	Group 2 Major	Requirements	
	William Jewell College	Sei	mester	Missouri S&T	
COM 100	Fundamentals of Speech Communication	3	SPMS 1185	Principles of Speech	3
EGR 230	Statics	3	CIV ENG 2200	Applies to degree as Gen Ed Communication requirement. Engineering Mechanics-Statics	3
EGR 233	Mechanics of Solids	3	CIV ENG 2210	Mechanics of Materials	3
CHE 121, 121L	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CHE 122, 122L	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
CHE 301 or PHY 316	Organic Chemistry I or Modern Physics	4	CHEM 2210 or PHYSICS 2305	Organic Chemistry I (4) or Intro to Modern Physics (3) Not specifically required for the degree but will satisfy Out-of-Department Technical Elective Requirement.	3
	Humanities, A	rts, and Social Scie	nces General Education Requi	irements	
	6 hours Hu	manities and Fine Arts avioral and Social Scien	group below, select 15 hours to in from at least two specific discipline nces from at least two specific disci t, or POL SCI 1200 to satisfy the	s and iplines.	
			s and Fine Arts	.	
	S	elect 6 hours from at l	east two specific disciplines.		
ENG 340 or ENG 345 or ENG 350 or ENG 360 or HIS 121* or HIS 122* or	Studies in English Literature I or Studies in English Literature II or Studies in U.S. Literature I or Great Works of World Literature or Foundations of U.S. History* or The Modern United States* *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1865 to Present or World Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* *Satisfies the State of Missouri government requirement.	6
			nd Social Sciences		
		elect 6 hours from at l	east two specific disciplines.		
GEO 304 or PHI 201 or PHI 331 or POL 150* or PSY 101 or ECO 101 or ECO 202 or Foreign Language	Economic Geography or Intro to Philosophy or Symbolic Logic or Intro to American Government* or Intro to Psychological Science or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government*or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6
			, and Social Sciences		
	Humanitian Arta Conial Colonnes Electives Anythists		ct 3 hours.	Humanitias Arta Casial Caianaga Electivos Articistario art	
HASS Elective	Humanities, Arts, Social Sciences Elective: Any histo music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	лу, агт,	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	41 34 otal Hours 75		Group 2 Major Requirements Group 1 Core Requirements Total Hours *S&T advisor permission is required to transfer more than 68 credits toward the S&T Metallurgical Engineering degree.	38 26 s* 64

	Mining Engin	eering Gr	oup 2 Major Re	quirements	
	William Jewell College	Sc	emester	Missouri S&T	
COM 100	Fundamentals of Speech Communication	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
MAT 301	Intro to Probability	4	STAT 3117*	Intro to Probability and Statistics* *Will be substituted for the STAT 3113/3115 requirement.	3
CHE 121, 121L	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
EGR 230	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHY 443 or EGR 231	Classical Mechanics (4) or Dynamics (3)	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
EGR 233	Mechanics of Solids	3	CIV ENG 2210	Mechanics of Materials	3
	6 hours H	umanities and Fine Arts havioral and Social Scient TORY 1200, 1300, 131	n group below, select 12 hours to it is from at least two specific discipline ences from at least two specific disc 10, or POL SCI 1200 to satisfy the les and Fine Arts	es and ciplines.	
	\$		t least two specific disciplines.		
ENG 340 or ENG 345 or ENG 350 or ENG 360 or HIS 121* or HIS 122* or	Studies in English Literature I or Studies in English Literature II or Studies in U.S. Literature I or Great Works of World Literature or Foundations of U.S. History* or The Modern United States* *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1865 to Present or World Literature: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* 'Satisfies the State of Missouri government requirement.	6
			and Social Sciences		
GEO 304 or PHI 201 or PHI 331 or POL 150* or PSY 101 or ECO 101 or ECO 202 or Foreign Language	Economic Geography or Intro to Philosophy or Symbolic Logic or Intro to American Government* or Intro to Psychological Science or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	Select 6 hours from a	t least two specific disciplines. HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	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. Group 2 Major Requirements Group 1 Core Requirements	0 33 34 Total Hours 67		Maximum Free Electives Group 2 Major Requirements Group 1 Core Requirements Total Hou *S&T advisor permission is required to transfer more than 68 credits toward the S&T Mining Engineering degree.	0 31 26 Irs* 57

	Nuclear Eng	ineerin	g (Group	2 Major R	equirements	
	William Jewell College			Semester		Missouri S&T	
COM 100	Fundamentals of Speech Communication		3		SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 121, 121L	General Chemistry I and Lab		5		CHEM 1310, 1319	General Chemistry I and Lab	5
MAT 281	Linear Algebra		4		MATH 3108	Linear Algebra I	3
EGR 230	Statics		3		CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 233	Mechanics of Solids		3		CIV ENG 2210	Mechanics of Materials	3
MAT 301	Intro to Probability		4		STAT 3117	Intro to Probability and Statistics	3
PHY 316	Modern Physics	Auto and O	4	0-:	PHYSICS 2305 neral Education Rec	Intro to Modern Physics	3
	From th 6 hours	e options liste Humanities and ehavioral and S	d in e Fine locial	ach group be Arts from at le Sciences from	low, select 15 hours to ast two specific discipli at least two specific dis	include nes and sciplines.	
	At least one course must be selected from the			nities and Fi	•	e state of missouri government requirement.	
					specific disciplines.		
ENG 340 or ENG 345 or ENG 350 or ENG 360 or HIS 121* or HIS 122* or	Studies in English Literature I or Studies in English Literature II or Studies in U.S. Literature I or Great Works of World Literature or Foundations of U.S. History* or The Modern United States* *Satisfies the State of Missouri government requirement.		6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* Satisfies the State of Missouri government requirement.	6
		Beh	avior	al and Socia	l Sciences	,	
		Select 6 hour	s fror	n at least two	specific disciplines.		
ECO 101 or ECO 202	Principles of Microeconomics or Principles of Macroeconomics		3		ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3
GEO 304 or PHI 201 or PHI 331 or POL 150* or PSY 101 or Foreign Language	Economic Geography or Intro to Philosophy or Symbolic Logic or Intro to American Government* or Intro to Psychological Science or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.		3		HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or Foreign Language	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
		Humani		Arts, and So Select 3 hours	ocial Sciences s.		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any h music, theater, English and technical communicati philosophy, political science, psychology, economi etymology, or foreign language.	on,	3		HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
	Maximum Free Electives Group 2 Major Requirements Group 1 Core Requirements	Total Hours	0 41 34 75			Maximum Free Electives Group 2 Major Requirements Group 1 Core Requirements Total Hours* *S&T advisor permission is required to transfer more than 69 credits toward the S&T Nuclear Engineering degree.	0 38 26 64

	Petroleum Eng	jineerinç	g Group	o 2 Major R	Requirements	
	William Jewell College		Semester		Missouri S&T	
COM 100	Fundamentals of Speech Communication	3		SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHE 121, 121L	General Chemistry I and Lab	5		CHEM 1310, 1319	General Chemistry I and Lab	5
DTS 190	Intro to Computer Science	4		CS 1500	Computational Problem Solving	3
EGR 230	Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
PHY 443 or EGR 231	Classical Mechanics (4) or Dynamics (3)	3		MECH ENG 2350	Engineering Mechanics-Dynamics	2
EGR 233	Mechanics of Solids	3		CIV ENG 2210	Mechanics of Materials	3
	From the 6 hours H	options listed in output options listed in output options and Fine havioral and Social TORY 1200, 1300	each group bel Arts from at le Sciences from , 1310, or POL	•	nclude es and ciplines.	
			anities and Fi			
ENG 340 or ENG 345 or ENG 350 or ENG 360 or HIS 121* or HIS 122* or	Studies in English Literature I or Studies in English Literature II or Studies in U.S. Literature I or Great Works of World Literature or Foundations of U.S. History* or The Modern United States* *Satisfies the State of Missouri government requirement.	6	m at least two	specific disciplines. ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310*	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* 'Satisfies the State of Missouri government requirement.	6
			ral and Social	Sciences specific disciplines.		
GEO 304 or PHI 201 or PHI 331 or POL 150* or PSY 101 or ECO 101 or ECO 202 or Foreign Language	Economic Geography or Intro to Philosophy or Symbolic Logic or Intro to American Government* or Intro to Psychological Science or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	iii at icast two	HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	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 hours	cial Sciences		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any his music, theater, English and technical communicatio philosophy, political science, psychology, economics 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	36 34 Total 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 Petroleum Engineering degree.	34 26 60