## Maryville University — 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.

	Maryville University		Semester	•	<u>Missouri S&amp;T</u>		
MATH 151	Calculus I	4		MATH 1214	Calculus I Grade of C or better is required.		4
MATH 152	Calculus II	4		MATH 1215	Calculus II Grade of C or better is required.		4
MATH 251	Calculus III	4		MATH 2222	Calculus III Grade of C or better is required.		4
MATH 320	Applied Differential Equations	3		MATH 3304	Elementary Differential Equations		3
PHYS 153, 153L	Calculus-Based Physics I and Lab	4		PHYSICS 1135	Engineering Physics I Grade of C or better is required.		4
PHYS 154, 154L	Calculus-Based Physics II and Lab	4		PHYSICS 2135	Engineering Physics II Grade of C or better is required.		4
COMP 101	Writing Across the Disciplines I: Rhetorical Situations	3		ENGLISH 1120	Exposition and Argumentation		3
		Total Hours 26				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 Engine	arino	n Groi	ın 2 Maior R	Paguiraments	
		, I II I (				
	<u>Maryville University</u>		Semeste	<u>r</u>	Missouri S&T	
COMP 104 or COMM 110	Writing Across the Disciplines II: Research & Argument or Public Speaking	3		ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 103, 103L	General Chemistry I and Lab	4		CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
COSC 151	Computer Science I (C++)	3		CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
MATH 316	Applied Linear Algebra	3		MATH 3108	Linear Algebra I Satisfies the Advanced Math/Statistics elective requirement.	3
Ethics	Ethics Elective Engineering, business, bio, social ethics approved by advisor.	3		Ethics	Ethics Elective Engineering, business, bio, social ethics approved by advisor	3
	From the options 6 hours Humanities	listed in e and Fine and Socia	each group b e Arts from at al Sciences fro	eneral Education Requelow, select 15 hours to in least two specific discipline m at least two specific discipline m at least two specific disciplines.	clude s and iplines.	
	At least one course must be selected from his for final		anities and I		State of Missouri government requirement.	
	Select 6			o specific disciplines.		
ENGL 316 or ENGL 317 or ENGL 127 or ENGL 222 or ENGL 357 or HIST 121* or HIST 122* or ART 100 or MUS 106 or	British Literature I or British Literature II or Early American Voices or American Realism and Modernism or World Literature I: The Dawn of Story or American History to 1877* or American History Since 1877* or Art Appreciation I or Music Appreciation I or *Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
		Behavio	ral and Soci	ial Sciences		
		hours fro	om at least tw	o specific disciplines.		
HIST 131 or HIST 132* or EDUC 220 or PHIL 220 or PHIL 230 or PSCI 101* or PSYCH 101 or Foreign Language	World History to 1500 or  World History Since 1500* or Economic Geography or Intro to Philosophy or Logic: Inf and Methodology or American Government* or General Psychology 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 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.	6
	Hui	nanities	s, <b>Arts, and S</b> Select 3 hou	ocial Sciences		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosopl political science, psychology, economics, etymology, or foreign language.	<sup>ny,</sup> 3	30.03.01100	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
	No free electives applied to the degree.	0			Maximum Free Electives	0
	Group 2 Major Requirements Group 1 Core Requirements Total Ho	31 26 urs 57			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.	32 26 58

	Architectural Enginee	rir	ıg Gro	up 2 Major	Requirements	
	Maryville University		Semester	•	Missouri S&T	
COMP 104 or COMM 110	Writing Across the Disciplines II: Research & Argument or Public Speaking	3		ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 103, 103L	General Chemistry I and Lab	4		CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
MATH 370 AND 371	Probability I (3) AND Probability II (3) The combination of MU MATH 370 and 371 is equivalent to S&T STAT 3117. Both courses must be taken to receive equivalent credit.	6		STAT 3117*	Intro to Probability and Statistics*  *STAT 3117 will be substituted for STAT 3113. The combination of MU MATH 370 and 371 is equivalent to S&T STAT 3117. Both courses must be taken to receive equivalent credit.	3
SCI 309	Geology	4		GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
	6 hours Humanities ar	ed in e nd Fine Socia	each group be Arts from at lo I Sciences fror	elow, select 15 hours to inc east two specific disciplines n at least two specific disci	clude s and plines.	
			anities and F			
ENGL 316 or ENGL 317 or ENGL 127 or ENGL 222 or ENGL 357 or HIST 121* or HIST 122* or ART 100 or MUS 106 or	British Literature I or British Literature II or Early American Voices or American Realism and Modernism or World Literature I: The Dawn of Story or American History to 1877* or American History Since 1877* or Art Appreciation I or "Satisfies the State of Missouri government requirement.	6		o specific disciplines. ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1222 or ENGLISH 1222 or ENGLISH 1231 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 World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
	<b>Be</b> l Select 6 hours from at lea		ral and Socia		RY 1200	
HIST 132*	World History Since 1500* *Satisfies the State of Missouri Government requirement.	3	o opeome diec	HISTORY 1200*	Modern Western Civilization*  *Satisfies the State of Missouri Government requirement.	3
PHIL 220 or PHIL 230 or PSCI 101* or PSYCH 101 or Foreign Language	Intro to Philosophy or Logic: Inf and Methodology or American Government* or General Psychology 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 Foreign Language	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
	Humai		, <b>Arts, and S</b> e RT 3203 requ	ocial Sciences iired.		
ADAH 302	Modern Art and Architecture	3		ART 3203	Architectural Design I	3
	No free electives applied to the degree. Group 2 Major Requirements Group 1 Core Requirements Total Hours	0 32 26 58			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 Architectural Engineering degree.	0 29 26 55

			ing-Biomanufa Requirements		
	Maryville University	Sem	<u>ester</u>	Missouri S&T	
COMM 110	Public Speaking	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 103, 103L	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHEM 104, 104L	General Chemistry II and Lab	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2)	3
CHEM 203, 203L	Organic Chemistry I and Lab	4	CHEM 2210, 2219	*CHEM 1510 is not a degree requirement, transfers as general elective credit.  Organic Chemistry I and Lab	4
CHEM 204, 204L or BIOL 103, 103L or BIOL 117, 117L or BIOL 260, 260L	Organic Chemistry II and Lab or Intro to Biology and Lab or General Biology and Lab or General Genetics	4	CHEM 2220, 2229 or BIO SCI 1113, 1219 or BIO SCI 2223	Organic Chemistry II and Lab or General Biology and Lab or General Genetics Applies to degree as Track Elective.	4
BIOL 351, 351L	Cell Biology and Lab	4	BIO SCI 2213, 2219	Cell Biology and Lab	3
COSC 151	Computer Science I (C++)	3	CS 1971,1981*	Intro to Programming Methodology and Lab* C++) *Will be substituted for CS 1500.	3
		Humanities and Fine Arts fro 3 hours Behavioral HISTORY 1200, 1300, 1310, o	oup below, select 9 hours to inclume at least two specific disciplines and Social Sciences.  or POL SCI 1200 to satisfy the Sand Fine Arts	and	
			ast two specific disciplines.		
ENGL 316 or ENGL 317 or ENGL 127 or ENGL 222 or ENGL 357 or HIST 121* or HIST 122* or ART 100 or MUS 106 or	British Literature I or British Literature II or Early American Voices or American Realism and Modernism or World Literature I: The Dawn of Story or American History to 1877* or American History Since 1877* or Art Appreciation I or Music Appreciation I or *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300° or HISTORY 1310° or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1800 to 1865 or American Literature: 1805 to Present or World Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
			Social Sciences		
HIST 131 or HIST 132* or EDUC 220 or PSCI 101* or PSYCH 101 or Foreign Language	World History to 1500 or  World History Since 1500* or Economic Geography or American Government* or General Psychology or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	Select 3	3 hours.  HISTORY 1100 or  HISTORY 1200* or  HISTORY 2110 or  POL SCI 1200* or  PSYCH 1101 or  Foreign Language	Early Western Civilization or  Modern Western Civilization* or  World Regional Geography or  American Government* or General Psychology 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	0 35 26 Total Hours 61		Maximum Free Electives Group 2 Major Requirements Group 1 Core Requirements  Total Hours*  *S&T advisor permission is required to transfer more than 69 credit hours toward the degree.	0 34 26 60

			neering-Biomate or Requirements		
	Maryville University	<u>Se</u>	<u>emester</u>	Missouri S&T	
COMM 110	Public Speaking	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 103, 103L	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHEM 104, 104L	General Chemistry II and Lab	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
CHEM 203, 203L	Organic Chemistry I and Lab	4	CHEM 2210, 2219*	Organic Chemistry I and Lab*  *CHEM 2219 Lab applies to the degree as a Track Elective (non-engineering).	4
CHEM 204, 204L	Organic Chemistry II and Lab	4	CHEM 2220, 2229*	Organic Chemistry II and Lab* CHEM 2229 Lab applies to the degree as a Track Elective (non-engineering).	4
BIOL 103, 103L or BIOL 117, 117L	Intro to Biology and Lab or General Biology and Lab	4	BIO SCI 1113*, 1219*	General Biology* and Lab* *Applies to degree as Track Elective (Non-engineering).	4
BIOL 351, 351L	Cell Biology and Lab	4	BIO SCI 2213, 2219	Cell Biology and Lab	4
COSC 151	Computer Science I (C++)	3	CS 1971,1981*	Intro to Programming Methodology and Lab* C++) *Will be substituted for CS 1500.	3
	6 hou	3 hours Behavio HISTORY 1200, 1300, 131 Humaniti	s from at least two specific disciplines ral and Social Sciences. <ol> <li>or POL SCI 1200 to satisfy the Ses and Fine Arts</li> <li>least two specific disciplines.</li> </ol>		
ENGL 316 or ENGL 317 or ENGL 127 or ENGL 222 or ENGL 357 or HIST 121* or HIST 122* or ART 100 or MUS 106 or	British Literature I or British Literature II or British Literature II or Early American Voices or American Realism and Modernism or World Literature I: The Dawn of Story or American History to 1877* or American History Since 1877* or Art Appreciation I or Music Appreciation I or *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1800 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
			and Social Sciences ect 3 hours.		
HIST 131 or HIST 132* or EDUC 220 or PSCI 101* or PSYCH 101 or Foreign Language	World History to 1500 or  World History Since 1500* or Economic Geography or American Government* or General Psychology or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or POL SCI 1200* or PSYCH 1101 or Foreign Language	Early Western Civilization or  Modern Western Civilization* or  World Regional Geography or  American Government* or  General Psychology 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	0 39 26 Total Hours 65		Maximum Free Electives Group 2 Major Requirements Group 1 Core Requirements Total Hot "\$AT advisor permission is required to transfer more than 69 credits toward the \$AT Biomedical Engineering degree.	0 39 26 urs* 65

	Ceramic Engineeri	ng	Group	2 Major Red	quirements	
	Maryville University		Semester	<u>r</u>	Missouri S&T	
COMP 104 or COMM 110	Writing Across the Disciplines II: Research & Argument or Public Speaking	3		ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 103, 103L	General Chemistry I and Lab	4		CHEM 1310, 1319	General Chemistry I and Lab	5
CHEM 104, 104L	General Chemistry II and Lab	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
CHEM 203, 203L	Organic Chemistry I and Lab	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
MATH 370 AND 371	Probability I (3) AND Probability II (3) The combination of MU MATH 370 and 371 is equivalent to S&T STAT 3117. Both courses must be taken to receive equivalent credit.	6		STAT 3117	Intro to Probability and Statistics or any statistics ocurse 3000-level or higher. Satisfies statistics elective requirement. The combination of MU MATH 370 and 371 is equivalent to S&T STAT 3117. Both courses must be taken to receive equivalent credit.	3
	From the options lis 6 hours Humanities a	ted in and Find d Socia 0, 1300	each group be e Arts from at le al Sciences fror 0, 1310, or POI	•	ude and ines.	
	Select 6 ho		anities and F om at least two	o specific disciplines.		
ENGL 316 or ENGL 317 or ENGL 127 or ENGL 222 or ENGL 357 or HIST 121* or HIST 100 or MUS 106 or	British Literature I or British Literature II or Early American Voices or American Realism and Modernism or World Literature I: The Dawn of Story or American History to 1877* or American History Since 1877* or Art Appreciation I or Music Appreciation I or *Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
	<del>-</del> -		oral and Social	al Sciences o specific disciplines.		
HIST 131 or HIST 132* or EDUC 220 or PHIL 220 or PHIL 230 or PSCI 101* or PSYCH 101 or Foreign Language	World History to 1500 or World History Since 1500* or Economic Geography or Intro to Philosophy or Logic: Inf and Methodology or American Government* or General Psychology 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 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.	6
	Huma	nities	s, Arts, and So Select 3 hou	ocial Sciences rs.		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy political science, psychology, economics, etymology, or foreign language.	3		HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
	No free electives applied to the degree.	0			Maximum Free Electives	0
	Group 2 Major Requirements Group 1 Core Requirements Total Hour	36 26 s 62			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

	Chemical Enginee	ring - E	Bio	chen			
		oup z iv			equirements		
COMM 110	Maryville University Public Speaking	3		<u>Semester</u>	SP&MS 1185	Missouri S&T Principles of Speech	3
CHEM 103, 103L	General Chemistry I and Lab	4	4		CHEM 1310, 1319	Applies to degree as Gen Ed Communication requirement.  General Chemistry I and Lab	5
CHEM 104, 104L	General Chemistry II and Lab	4	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
CHEM 203, 203L	Organic Chemistry I and Lab	4	4		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
CHEM 204, 204L or BIOL 351, 351L or BIOL 316, 316L	Organic Chemistry II and Lab (4) or Cell Biology and Lab (4) or General Microbiology and Lab (4) Select up to 8 hours from these options.	8	3		CHEM 2220 or BIO SCI 2213, 2219 or BIO SCI 3313, 3319	Organic Chemistry II (3) or Cell Biology and Lab (4) or Microbiology and Lab (5) Applies to the degree as a maximum of 8 of the 9 required science elective credits. Select up to 8 hours from these options.	8
COSC 151	Computer Science I (C++)	3	3		CS 1971,1981*	Intro to Programming Methodology and Lab* C++) *Will be substituted for CS 1500.	3
MATH 370 AND 371	Probability I (3) AND Probability II (3) The combination of MU MATH 370 and 371 is equivalent to S&T STAT 311; must be taken to receive equivalent credit.	7. Both courses 6	3		STAT 3117*	Intro to Probability and Statistics*  *STAT 3117 will be substituted for STAT 3113. The combination of MU MATH 370 and 371 is equivalent to S&T STAT 3117. Both courses must be taken to receive equivalent credit.	3
		havioral and Soo TORY 1200, 13	cial S <b>00, 1</b>	Sciences from	•	lines.	
	5				specific disciplines.		
ENGL 316 or ENGL 317 or ENGL 127 or ENGL 222 or ENGL 357 or HIST 121* or HIST 100 or MUS 106 or	British Literature I or British Literature II or Early American Voices or American Realism and Modernism or World Literature I: The Dawn of Story or American History to 1877* or American History Since 1877* or Art Appreciation I or "Satisfies the State of Missouri government requirement.	€			ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1310* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
					Il Sciences		
HIST 131 or HIST 132* or EDUC 220 or PHIL 220 or PHIL 230 or PSCI 101* or PSYCH 101 or Foreign Language	World History to 1500 or  World History Since 1500* or Economic Geography or Intro to Philosophy or Logic: Inf and Methodology or American Government* or General Psychology or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	Select 6 hours i		at least two	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 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.	6
	No free electives applied to the degree. Group 2 Major Requirements Group 1 Core Requirements		4			Maximum Free Electives Group 2 Major Requirements Group 1 Core Requirements  Total Hours*  "\$&T advisor permission is required to transfer more than 68 credits toward the S&T Chemical Engineering degree.	0 41 26 67

	Civil Engineering	Gı	oup 2	Major Requ	uirements	
	Maryville University		Semester	<u>r</u>	Missouri S&T	
COMP 104 or COMM 110	Writing Across the Disciplines II: Research & Argument or Public Speaking	3		ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 103, 103L	General Chemistry I and Lab	4		CHEM 1310, 1319	General Chemistry I and Lab	5
SCI 309	Geology	4		GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
MATH 370 AND 371	Probability I (3) AND Probability II (3) The combination of MU MATH 370 and 371 is equivalent to S&T STAT 3117. Both courses must be taken to receive equivalent credit.	6		STAT 3117*	Intro to Probability and Statistics*  *STAT 3117 will be substituted for STAT 3113. The combination of MU MATH 370 and 371 is equivalent to S&T STAT 3117. Both courses must be taken to receive equivalent credit.	3
	Humanities, Arts, and S	ocial	Sciences G	eneral Education Requi	rements	
	6 hours Humanities an 6 hours Behavioral and	d Fine Social	Arts from at lo Sciences from	elow, select 15 hours to inc east two specific disciplines m at least two specific discip	and blines.	
	*At least one course must be selected from HISTORY 1200,			•	State of Missouri government requirement.	
			inities and F	o specific disciplines.		
ENGL 316 or ENGL 317 or ENGL 127 or ENGL 222 or ENGL 357 or HIST 121* or HIST 122* or ART 100 or MUS 106 or	British Literature I or British Literature II or Early American Voices or American Realism and Modernism or World Literature I: The Dawn of Story or American History to 1877* or American History Since 1877* or Art Appreciation I or Music Appreciation I or *Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300° or HISTORY 1310° or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
		navio	al and Socia	al Sciences	• • • • • • • • • • • • • • • • • • • •	
	Select 6 hou	ırs fro	m at least two	o specific disciplines.		
HIST 131 or HIST 132* or EDUC 220 or PHIL 220 or PHIL 230 or PSCI 101* or PSYCH 101 or Foreign Language	World History to 1500 or World History Since 1500* or Economic Geography or Intro to Philosophy or Logic: Inf and Methodology or American Government* or General Psychology 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 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.	6
	Humar		Arts, and Select 3 hou	ocial Sciences		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	Soledi o illu	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
	No free electives applied to the degree.	0			Maximum Free Electives	0
	Group 2 Major Requirements Group 1 Core Requirements Total Hours	32 26 58			Group 2 Major Requirements Group 1 Core Requirements  Total Hours*  *S&T advisor permission is required to transfer more than 69 credits toward the S&T Civil Engineering degree.	29 26 55

	Computer Enginee	:::::iy	Group 2 Major R	equirements	
	Maryville University		<u>Semester</u>	Missouri S&T	
COMM 110	Public Speaking	3	SPMS 1185	Principles of Speech	3
CHEM 103, 103L	General Chemistry I and Lab	4	CHEM 1310, 1319	Applies to degree as Gen Ed Communication requirement.  General Chemistry I and Lab	5
COSC 151	Computer Science I (C++)	3	CS 1971,1981*	Intro to Programming Methodology and Lab* C++) *Will be substituted for CS 1500.	3
CHEM 203, 203L or BIOL 351, 351L or BIOL 260	Organic Chemistry I and Lab or Cell Biology and Lab or General Genetics	4	CHEM 2210 or BIO SCI 2213 or BIO SCI 2223	Organic Chemistry I (3) or Cell Biology (3) or General Genetics (3) Satisfies a required engineering/science elective.	3
MATH 316	Applied Linear Algebra	3	MATH 3108	Linear Algebra Satisfies a required math elective.	3
MATH 370 AND 371	Probability I (3) AND Probability II (3) The combination of MU MATH 370 and 371 is equivalent to S&T STAT 3117. Both cours must be taken to receive equivalent reddit.	es 6	STAT 3117	Intro to Probability and Statistics The combination of MU MATH 370 and 371 is equivalent to S&T STAT 3117. Both courses must be taken to receive equivalent credit.	3
	6 hours Humanities	and Fine and Socia 200, 1300		es and ciplines.	
	Select 6.1		manities and Fine Arts mat least two specific disciplines.		
ENGL 316 or ENGL 317 or ENGL 127 or ENGL 222 or ENGL 357 or HIST 121* or HIST 122* or ART 100 or MUS 106 or	British Literature I or British Literature II or Early American Voices or American Realism and Modernism or World Literature I: The Dawn of Story or American History to 1877* or American History Since 1877* or Art Appreciation I or Music Appreciation I or *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300° or HISTORY 1310° or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation 'Satisfies the State of Missouri government requirement.	6
			ral and Social Sciences		
HIST 131 or HIST 132* or EDUC 220 or PHIL 220 or PHIL 230 or PSCI 101* or PSYCH 101 or Foreign Language	Select 6 I World History to 1500 or World History Since 1500* or Economic Geography or Intro to Philosophy or Logic: Inf and Methodology or American Government* or General Psychology or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	hours fro	m 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 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.	6
	Hun		, Arts, and Social Sciences		
COMP 104	Writing Across the Disciplines II: Research & Argument	3	Select 3 hours. ENGLISH 1160	Writing and Research	3
Electives	Maximum Free Electives Group 2 Major Requirements Group 1 Core Requirements Total Hou	3 41 26 urs 67	Electives	Maximum Free Electives  Group 2 Major Requirements  Group 1 Core Requirements  **St advisor permission is required to transfer more than 68 credits toward the S&T  Computer Engineering degree.	3 38 26 64

	Electrical Engineeri	ng	Group 2 Major	Requirements	
	Maryville University		Semester	Missouri S&T	
COMM 110	Public Speaking	3	SPMS 1185	Principles of Speech	3
CHEM 103, 103L	General Chemistry I and Lab	4	CHEM 1310, 1319	Applies to degree as Gen Ed Communication requirement.  General Chemistry I and Lab	
COSC 151	Computer Science I (C++)	3	CS 1971,1981*	Intro to Programming Methodology and Lab* C++) "Will be substituted for CS 1500.	
CHEM 203, 203L or BIOL 351, 351L or BIOL 260	Organic Chemistry I and Lab or Cell Biology and Lab or General Genetics	4	CHEM 2210 or BIO SCI 2213 or BIO SCI 2223	Organic Chemistry I or Cell Biology or General Genetics	;
MATH 316	Applied Linear Algebra	3	MATH 3108	Linear Algebra	(
MATH 370 AND 371	Probability I (3) AND Probability II (3) The combination of MU MATH 370 and 371 is equivalent to S&T STAT 3117. Both courses must be taken to receive equivalent craft.	6	STAT 3117	Intro to Probability and Statistics The combination of MU MATH 370 and 371 is equivalent to S&T STAT 3117. Both courses must be taken to receive equivalent credit.	
	Humanities, Arts, and S	ocial	Sciences General Education R	equirements	
	6 hours Humanities an	d Fine Socia	each group below, select 15 hours Arts from at least two specific disciples Sciences from at least two specific	plines and disciplines.	
	,		nities and Fine Arts	the State of Missouri government requirement.	
			m at least two specific disciplines		
ENGL 316 or ENGL 317 or ENGL 127 or ENGL 222 or ENGL 357 or HIST 121* or HIST 122* or ART 100 or MUS 106 or	British Literature I or British Literature II or Early American Voices or American Realism and Modernism or World Literature I: The Dawn of Story or American History to 1877* or American History Since 1877* or Art Appreciation I or Music Appreciation I or *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1311 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 World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or At Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	
			ral and Social Sciences		
HIST 131 or HIST 132* or EDUC 220 or PHIL 220 or PHIL 230 or PSCI 101* or PSYCH 101 or Foreign Language	World History to 1500 or  World History Since 1500* or Economic Geography or Intro to Philosophy or Logic: Inf and Methodology or American Government* or General Psychology or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	irs fro	m 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 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.	(
	Humar	,	Arts, and Social Sciences Select 3 hours.		
COMP 104	Writing Across the Disciplines II: Research & Argument	3	ENGLISH 1160	Writing and Research	
Electives	Maximum Free Electives Group 2 Major Requirements Group 1 Core Requirements Total Hours	6 44 26 70	Electives	Maximum Free Electives Group 2 Major Requirements Group 1 Core Requirements  "SâT advisor permission is required to transfer more than 68 credits toward the SâT Electrical Engineering degree.	4 2 6

	Engineering Ma	nagement	Group 2 Major	Requirements	
	Maryville University	<u>S</u>	<u>emester</u>	Missouri S&T	
COMM 110	Public Speaking	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 103, 103L COSC 151	General Chemistry I and Lab Computer Science I (C++)	4 3	CHEM 1310, 1319 CS 1971, 1981	General Chemistry I and Lab Intro to Programming Method and Lab (C++)	5 3
MATH 370 AND 371	Probability I (3) AND Probability II (3)  The combination of MU MATH 370 and 371 is equivalent to S&T STAT 311 must be taken to receive equivalent credit.	7. Both courses 6	STAT 3117	Intro to Probability and Statistics The combination of MU MATH 370 and 371 is equivalent to S&T STAT 3117. Both courses must be taken to receive equivalent credit.	3
	From the 6 hours H	options listed in each lumanities and Fine Art havioral and Social Sci	ences General Education Requi n group below, select 15 hours to into se from at least two specific disciplines ences from at least two specific disci 10, or POL SCI 1200 to satisfy the	clude s and plines.	
			ies and Fine Arts		
		Select 6 hours from a	t least two specific disciplines.		
ENGL 316 or ENGL 317 or ENGL 127 or ENGL 222 or ENGL 357 or HIST 121* or HIST 122* or ART 100 or MUS 106 or	British Literature I or British Literature II or Early American Voices or American Realism and Modernism or World Literature I: The Dawn of Story or American History to 1877* or American History Since 1877* or Art Appreciation I or Music Appreciation I or *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1805 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
		Behavioral a	and Social Sciences		
	Select 6 hou	rs from at least two s	pecific disciplines to include PSYC	SH 1101.	
Psych 101	General Psychology	3	PSYCH 1101	General Psychology Required	3
HIST 131 or HIST 132* or EDUC 220 or PHIL 220 or PHIL 230 or PSYCH 101 or Foreign Language	World History to 1500 or  World History Since 1500* or Economic Geography or Intro to Philosophy or Logic: Inf and Methodology or  American Government* 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 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 Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3
		•	ts, and Social Sciences		
COMP 104	Writing Across the Disciplines II: Research & Argume		ect 3 hours. ENGLISH 1160	Writing and Research	3
	No free electives applied to the degree. Group 2 Major Requirements Group 1 Core Requirements	0 31 26 Total Hours 57	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 Engineering Management degree.	0 29 26

	Environmental Engine	eeri	ng Gro	oup 2 Major	Requirements	
	Maryville University		Semester		Missouri S&T	
COMP 104 or COMM 110	Writing Across the Disciplines II: Research & Argument or Public Speaking	3		ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
SCI 309	Geology	4		GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
CHEM 103, 103L	General Chemistry I and Lab	4		CHEM 1310, 1319	General Chemistry I and Lab	5
CHEM 104, 104L	General Chemistry II and Lab	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
BIOL 103, 103L or BIOL 117, 117L	Intro to Biology and Lab or General Biology and Lab	4		BIO SCI 1113, 1219*	General Biology (3) and Lab* (1)  *The lab is not a degree requirement, transfers as general elective credit.	3
MATH 370 AND 371	Probability I (3) AND Probability II (3) The combination of MU MATH 370 and 371 is equivalent to S&T STAT 3117. Both courses must be taken to receive equivalent credit.	s 6		STAT 3117*	Intro to Probability and Statistics*  *STAT 3117 will be substituted for STAT 3113. The combination of MU MATH 370 and 371 is equivalent to S&T STAT 3117. Both courses must be taken to receive equivalent credit.	3
	6 hours Humanities a 6 hours Behavioral an *At least one course must be selected from HISTORY 120	and Fine od Socia 0, 1300 Huma	e Arts from at le I Sciences from , 1310, or POL anities and F	ine Arts	and blines.	
ENGL 316 or ENGL 317 or ENGL 127 or ENGL 222 or ENGL 357 or <b>HIST 121*</b> or <b>HIST 122*</b> or ART 100 or MUS 106 or	British Literature I or British Literature II or Early American Voices or American Realism and Modernism or World Literature I: The Dawn of Story or American History to 1877* or American History Since 1877* or Art Appreciation I or Usus Appreciation I or Satisfies the State of Missouri government requirement.	6		o specific disciplines. ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1222 or ENGLISH 1222 or ENGLISH 1223 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 World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
			ral and Socia	al Sciences ciplines to include HISTOI	DV 1200	
HIST 132*	World History Since 1500* *Satisfies the State of Missouri Government requirement.	3	o specific disc	HISTORY 1200*	Modern Western Civilization* *Satisfies the State of Missouri Government requirement.	3
PHIL 220 or PHIL 230 or PSCI 101* or PSYCH 101 or Foreign Language	Intro to Philosophy or Logic: Inf and Methodology or American Government* or General Psychology 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 Foreign Language	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
	No free electives applied to the degree. Group 2 Major Requirements Group 1 Core Requirements Total Hour	0 37 26 ss 63			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 Environmental Engineering degree.	0 32 26 58

	Geological Engineer	inç	g Group 2 Major R	equirements	
	Maryville University		Semester	Missouri S&T	
CHEM 103, 103L	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5
COSC 151	Computer Science I (C++)	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
SCI 309	Geology	4	GEO ENG 1150 (GEOLOGY 1110)	Physical and Environmental Geology	3
	Probability I (3) AND Probability II (3)			Intro to Probability and Statistics*	
MATH 370 AND 371	The combination of MUATH 370 and 371 is equivalent to S&T STAT 3117. Both courses must be taken to receive equivalent credit.	6	STAT 3117*	*STAT 3117 will be substituted for the statistics requirement.  The combination of MU MATH 370 and 371 is equivalent to S&T STAT 3117. Both courses must be taken to receive equivalent credit.	3
	Humanities, Arts, and S	ocial	Sciences General Education Requir	rements	
	6 hours Humanities an	d Fine Social	each group below, select 15 hours to incl Arts from at least two specific disciplines Sciences from at least two specific discip	and blines.	
			nities and Fine Arts	nate of Missouri government requirement.	
			m at least two specific disciplines.		
ENGL 316 or ENGL 317 or ENGL 127 or ENGL 222 or ENGL 357 or HIST 121* or HIST 1100 or MUS 106 or	British Literature I or British Literature II or Early American Voices or American Realism and Modernism or World Literature I: The Dawn of Story or American History to 1877* or American History Since 1877* or Art Appreciation I or Music Appreciation I or *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300° or HISTORY 1310° or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1800 to 1865 or American Literature: 1805 to Present or World Literature: 1865 to Present or World Literature: 18eginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation 3atisfies the State of Missouri government requirement.	6
			ral and Social Sciences		
		irs fro	m at least two specific disciplines.		
HIST 131 or HIST 132* or EDUC 220 or PHIL 220 or PHIL 230 or PSCI 101* or PSYCH 101 or Foreign Language	World History to 1500 or  World History Since 1500* or Economic Geography or Intro to Philosophy or Logic: Inf and Methodology or American Government* or General Psychology 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 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.	6
	Humar		Arts, and Social Sciences Select 3 hours.		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
	No free electives applied to the degree.	0		Maximum Free Electives	0
	Group 2 Major Requirements	32		Group 2 Major Requirements	29
	Group 1 Core Requirements  Total Hours	26 58		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 55

	Mechanical Enginee	ering	g Grou	ıp 2 Major F	Requirements	
	Maryville University		<u>Semester</u>		Missouri S&T	
COMP 104 or COMM 110	Writing Across the Disciplines II: Research & Argument or Public Speaking	3		ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 103, 103L	General Chemistry I and Lab	4		CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
COSC 151	Computer Science I (C++)	3		CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
MATH 316	Applied Linear Algebra	3		MATH 3108	Linear Algebra I Will satisfy the Advanced Math/Statistics elective requirement.	3
	From the options I 6 hours Humanities	sted in ea and Fine nd Social	ach group be Arts from at le Sciences fron	eneral Education Requi elow, select 15 hours to inc east two specific disciplines in at least two specific disciples	clude s and plines.	
	74 10401 010 004100 111401 00 001000 11011 1101 0101		nities and F	•	otato or missouri government requirement.	
	Select 6 h	ours fron	n at least two	specific disciplines.		
ENGL 316 or ENGL 317 or ENGL 127 or ENGL 222 or ENGL 357 or HIST 121* or ART 100 or MUS 106 or	British Literature I or British Literature II or Early American Voices or American Realism and Modernism or World Literature I: The Dawn of Story or American History to 1877* or American History Since 1877* or Art Appreciation I or Music Appreciation I or *Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300° or HISTORY 1310° or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1805 to Present or World Literature: Beginnings to the Renaissance 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
			al and Socia			
HIST 131 or HIST 132* or EDUC 220 or PHIL 220 or PHIL 230 or PSCI 101* or PSYCH 101 or Foreign Language	World History to 1500 or  World History Since 1500* or Economic Geography or Intro to Philosophy or Logic: Inf and Methodology or American Government* or General Psychology or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6		o specific disciplines. HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or 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.	6
	Hun		Arts, and So Select 3 hour	ocial Sciences rs.		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosoph political science, psychology, economics, etymology, or foreign language.	/· 3		HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
	No free electives applied to the degree. Group 2 Major Requirements Group 1 Core Requirements Total Hou	0 28 26 rs 54			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 29 26 55

	Metallurgical Enginee	ering Gro	oup 2 Major F	Requirements	
	Maryville University	Semeste	<u>er</u>	Missouri S&T	
COMP 104 or COMM 110	Writing Across the Disciplines II: Research & Argument or Public Speaking	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
MATH 370 AND 371	Probability I (3) AND Probability II (3) The combination of MU MATH 370 and 371 is equivalent to S&T STAT 3117. Both courses must be taken to receive equivalent credit.	6	STAT 3117*	Intro to Probability and Statistics*  *Will be substituted for the STAT 3113/3115 requirement. The combination of MU MATH 370 and 371 is equivalent to S&T STAT 3117. Both courses must be taken to receive equivalent credit.	3
CHEM 103, 103L	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHEM 104, 104L	General Chemistry II and Lab	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
CHEM 203, 203L	Organic Chemistry I and Lab	4	CHEM 2210, 2219*	Organic Chemistry I (3) and Lab* (1) CHEM 2210 is not specifically required for the degree but will satisfy Out-of-Department Technical Elective Requirement. 'CHEM 2219 is not an S&T degree requirement, will transfer as general elective credit.	3
	From the options lis 6 hours Humanities a	ted in each group b nd Fine Arts from at d Social Sciences fro D, 1300, 1310, or PO	•	de ind nes.	
	Salast 6 ha	Humanities and I	Fine Arts vo specific disciplines.		
ENGL 316 or ENGL 317 or ENGL 127 or ENGL 222 or ENGL 357 or HIST 121* or HIST 100 or MUS 106 or	British Literature I or British Literature II or Early American Voices or American Realism and Modernism or World Literature I: The Dawn of Story or American History to 1877* or American History Since 1877* or Art Appreciation I or Music Appreciation I or *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1800 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation 'Satisfies the State of Missouri government requirement.	6
		havioral and Soc	ial Sciences vo specific disciplines.		
HIST 131 or HIST 132* or EDUC 220 or PHIL 220 or PSCI 101* or PSYCH 101 or Foreign Language	World History to 1500 or  World History Since 1500° or  Economic Geography or Intro to Philosophy or Logic: Inf and Methodology or  American Government* or General Psychology or  Elementary or Intermediate Foreign Language  *Satisfies the State of Missouri government requirement.	dis nom at least w	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.	6
		nities, Arts, and S Select 3 hou		•	
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
	Maximum Free Electives	3		Maximum Free Electives	3
	Group 2 Major Requirements Group 1 Core Requirements Total Hours	39 26 s 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 Metallurgical Engineering degree.	35 26 61

	Mining Engineerii	ng (	Group	2 Major Req	uirements	
	Maryville University		Semester		Missouri S&T	
COMP 104 or COMM 110	Writing Across the Disciplines II: Research & Argument or Public Speaking	3		ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
MATH 370 AND 371	Probability I (3) AND Probability II (3) The combination of MU MATH 370 and 371 is equivalent to S&T STAT 3117. Both courses must be taken to receive equivalent credit.	, 6		STAT 3117*	Intro to Probability and Statistics*  *Will be substituted for the STAT 3113/3115 requirement. The combination of MU MATH 370 and 371 is equivalent to S&T STAT 3117. Both courses must be taken to receive equivalent credit.	3
CHEM 103, 103L	General Chemistry I and Lab	4		CHEM 1310, 1319	General Chemistry I and Lab	5
SCI 309	Geology	4		GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
				neral Education Require		
	6 hours Humanities a	and Fine d Socia	e Arts from at le	elow, select 12 hours to incluses two specific disciplines at least two specific disciplines at least two specific disciplines.	and ines.	
	At least one course must be selected from Fils For 1 120		anities and F	•	ate of Missouri government requirement.	
	Select 6 h			specific disciplines.		
ENGL 316 or ENGL 317 or ENGL 127 or ENGL 222 or ENGL 357 or HIST 121* or HIST 122* or ART 100 or MUS 106 or	British Literature I or British Literature II or Early American Voices or American Realism and Modernism or World Literature I: The Dawn of Story or American History to 1877* or American History Since 1877* or Art Appreciation I or Music Appreciation I or 'Satisfies the State of Missouri government requirement.	6		ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1310° 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 World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
	В	ehavio	ral and Socia	I Sciences		
		ours fro	m at least two	specific disciplines.		
HIST 131 or HIST 132° or EDUC 220 or PHIL 220 or PHIL 230 or PSCI 101° or PSYCH 101 or Foreign Language	World History to 1500 or  World History Since 1500* or Economic Geography or Intro to Philosophy or Logic: Inf and Methodology or American Government* or General Psychology 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 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.	6
	No free electives applied to the degree.	0			Maximum Free Electives	0
	Group 2 Major Requirements Group 1 Core Requirements Total Hour	29 26 s 55			Group 2 Major Requirements Group 1 Core Requirements  Total Hours*  *S&T advisor permission is required to transfer more than 68 credits toward the S&T Mining Engineering degree.	26 26 52

	Nuclear Engineerin	g Gı	oup 2 Major Red	quirements	
	Maryville University	S	emester	Missouri S&T	
COMP 104 or COMM 110	Writing Across the Disciplines II: Research & Argument or Public Speaking	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
CHEM 103, 103L	General Chemistry I and Lab	4	CHEM 1310, 1319	Applies to degree as Gen Ed Communication requirement.  General Chemistry I and Lab	5
COSC 151 MATH 316	Computer Science I (C++) Applied Linear Algebra	3	CS 1971, 1981 MATH 3108	Intro to Programming Method and Lab (C++) Linear Algebra	3
MATH 370 AND 371	Probability I (3) AND Probability II (3)  The combination of MU MATH 370 and 371 is equivalent to S&T STAT 3117. Both courses must be taken to receive equivalent credit.	6	STAT 3117	Intro to Probability and Statistics	3
	Humanities, Arts, and S	ocial Sci	ences General Education Requir	rements	
			group below, select 12 hours to incl		
			s from at least two specific disciplines oral and Social Sciences.	and	
	*At least one course must be selected from HISTORY 1200,	1300, 131	10, or POL SCI 1200 to satisfy the S	State of Missouri government requirement.	
			es and Fine Arts t least two specific disciplines.		
ENGL 316 or ENGL 317 or ENGL 127 or ENGL 222 or ENGL 357 or HIST 121* or HIST 1120 or MUS 106 or	British Literature I or British Literature II or Early American Voices or American Realism and Modernism or World Literature I: The Dawn of Story or American History to 1877* or American History Since 1877* or Art Appreciation I or "Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 13100* 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 World Literature: 18e5 in the Renaissance or American History to 1877* or American History to 1877* or Art Appreciation or Music Understanding and Appreciation States the State of Missouri government requirement.	6
	Beł		and Social Sciences		
HIST 131 or HIST 132* or EDUC 220 or PHIL 220 or PHIL 230 or PSCI 101* or PSYCH 101 or Foreign Language	World History to 1500 or World History Since 1500* or Economic Geography or Intro to Philosophy or Logic: Inf and Methodology or American Government* or General Psychology or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3	ect 3 hours.  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
	Humar		s, and Social Sciences ect 3 hours.		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
	Maximum Free Electives	0		Maximum Free Electives	0
	Group 2 Major Requirements Group 1 Core Requirements Total Hours	31 26		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.	29 26

	Petroleum Enginee	ering G	Group 2 Major R		
	Maryville University		<u>mester</u>	Missouri S&T	
COMP 104 or COMM 110	Writing Across the Disciplines II: Research & Argument or Public Speaking	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 103, 103L	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5
SCI 309	Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
	From the options 6 hours Humanitie	listed in each s and Fine Arts and Social Scie	proces General Education Requi group below, select 15 hours to inc from at least two specific disciplines ences from at least two specific discip 0, or POL SCI 1200 to satisfy the S	elude and olines.	
			es and Fine Arts		
		hours from at	least two specific disciplines.		
ENGL 316 or ENGL 317 or ENGL 127 or ENGL 222 or ENGL 357 or HIST 121* or HIST 122* or ART 100 or MUS 106 or	British Literature I or British Literature II or Early American Voices or American Realism and Modernism or World Literature I: The Dawn of Story or American History to 1877* or American History Since 1877* or Art Appreciation I or Music Appreciation I or *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1223 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
		Behavioral a	nd Social Sciences		
	Select 6	hours from at	least two specific disciplines.		
HIST 131 or HIST 132* or EDUC 220 or PHIL 220 or PHIL 230 or PSCI 101* or PSYCH 101 or Foreign Language	World History to 1500 or  World History Since 1500* or Economic Geography or Intro to Philosophy or Logic: Inf and Methodology or American Government* or General Psychology 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 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.	6
	Hui		s, and Social Sciences ect 3 hours.		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosop political science, psychology, economics, etymology, or foreign language.	hy, 3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
	No free electives applied to the degree.	0		Maximum Free Electives	0
	Group 2 Major Requirements Group 1 Core Requirements Total Ho	26 26 urs 52		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.	26 26 52