Webster University — Missouri S&T

General Engineering

Transfer Guide Effective as of Fall 2026

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.

Webster University		Semester	Missouri S&T		
MATH 1610 and MATH 1620	Calculus I and Calculus II	10	MATH 1214 and MATH 1215	Calculus I and Calculus II Grade of C or better is required for both courses.	8
MATH 2800	Differential Equations	3	MATH 3304	Elementary Differential Equations	3
PHYS 2030, 2031	University Physics I and Lab	4	PHYSICS 1135	Engineering Physics I Grade of C or better is required.	4
PHYS 2040, 2041	University Physics II and Lab	4	PHYSICS 2135	Engineering Physics II Grade of C or better is required.	4
WRIT 1010	The Craft of College Writing	3	ENGLISH 1120	Exposition and Argumentation	3
	Total Hours	24		Total Hours	22

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

Biomedical Engineering - 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

Semiconductor 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 2026.
Further information or updates are available from Missouri S&T Transfer Admissions at transfer.mst.edu, transfer@mst.edu, or 800-522-0938.

Aerospace Engineering Group 2 Major Requirements

Webster University			Semester	Missouri S&T		
WRIT 3200 or SPMC 1040	Technical Writing or Public Speaking	3		ENGLISH 3560 or SPMS 1185	Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 1100, 1101	General Chemistry I and Lab	4		CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
COSC 1550	Computer Programming I	3		COMP SCI 1971, 1981	Intro to Programming Method and Lab (C++)	3
PHIL 2110	Intro to Ethics or other engineering, business, bio, social ethics approved by advisor	3		PHILOS 1130	How Should I Live? An Introduction to Ethics or other engineering, business, bio, social ethics approved by advisor	3
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. ***At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.**						
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.						
ENGL 2020 or ENGL 2030 or **HIST 1310*** or **HIST 1320*** or MUSC 1050 or Literature	Major British Writers I or Major British Writers II or **Nineteenth-Century America*** or **Twentieth-Century United States*** or Intro to Music Appreciation or Any literature with prerequisite of no more than English Composition I ***Satisfies the State of Missouri government requirement.**	6		ENGLISH 1211 or ENGLISH 1212 or HISTORY 1300* or HISTORY 1310* or MUSIC 1150 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American History to 1877* or American History Since 1877* or Music Understanding and Appreciation or Any literature with prerequisite of no more than ENGLISH 1120. ***Satisfies the State of Missouri government requirement.**	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.						
HIST 1100 or PHIL 1010 or PHIL 2010 or **POLT 1060*** or PSYC 1030 or ECON 2020 or ECON 2030 or Foreign Language	World Civilizations before 1500 or Intro to Philosophy or Informal Logic or **Intro to American Politics*** or Intro to Psychology* or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6		HISTORY 1100 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or 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 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	28			Group 2 Major Requirements	29
	Group 1 Core Requirements	24			Group 1 Core Requirements	22
	Total Hours	52			Total Hours*	51
					*S&T advisor permission is required to transfer more than 68 credits toward the S&T Aerospace Engineering degree.	

Architectural Engineering Group 2 Major Requirements

Webster University		Semester	Missouri S&T		
WRIT 3200 or SPMC 1040	Technical Writing or Public Speaking	3	ENGLISH 3560 or SPMS 1185	Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 1100, 1101	General Chemistry I and Lab	4	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 9 hours to include 3 hours Humanities and Fine Arts and 3 hours Behavioral and Social Sciences. ***At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.**					
Humanities and Fine Arts Select 3 hours.					
ENGL 2020 or ENGL 2030 or **HIST 1310*** or **HIST 1320*** or MUSC 1050 or Literature	Major British Writers I or Major British Writers II or **Nineteenth-Century America*** or **Twentieth-Century United States*** or Intro to Music Appreciation or Any literature with prerequisite of no more than English Composition I ***Satisfies the State of Missouri government requirement.**	3	ENGLISH 1211 or ENGLISH 1212 or HISTORY 1300* or HISTORY 1310* or MUSIC 1150 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American History to 1877* or American History Since 1877* or Music Understanding and Appreciation or Any literature with prerequisite of no more than ENGLISH 1120. ***Satisfies the State of Missouri government requirement.**	3
Behavioral and Social Sciences Select 3 hours.					
PHIL 1010 or PHIL 2010 or **POLT 1060*** or PSYC 1030 or ECON 2020 or ECON 2030 or Foreign Language	Intro to Philosophy or Informal Logic or **Intro to American Politics*** or Intro to Psychology* or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	3	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
Humanities, 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	16		Group 2 Major Requirements	17
	Group 1 Core Requirements	24		Group 1 Core Requirements	22
	Total Hours	40		Total Hours*	39
				*S&T advisor permission is required to transfer more than 69 credits toward the S&T Architectural Engineering degree.	

Biomedical Engineering-Biomanufacturing
Group 2 Major Requirements

Webster University		Semester	Missouri S&T		
SPMC 1040	Public Speaking	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 1100, 1101	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHEM 1110, 1111	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 2100	Organic Chemistry I	3	CHEM 2210, 2219	Organic Chemistry I and Lab	4
CHEM 2110 or BIOL 1550, 1551 or BIOL 3050, 3051	Organic Chemistry II (3) or Essentials of Biology I and Lab (5) or Genetics and Lab (4)	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 3080, 3081	Cell Biology and Lab	4	BIO SCI 2213, 2219	Cell Biology and Lab	4
COSC 1550	Computer Programming I	3	COMP SCI 1971,1981*	Intro to Programming Methodology and Lab*(C++) (3) *Will be substituted for COMP SCI 1500.	3
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. ***At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.**					
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.					
ENGL 2020 or ENGL 2030 or **HIST 1310*** or **HIST 1320*** or MUSC 1050 or Literature	Major British Writers I or Major British Writers II or **Nineteenth-Century America*** or **Twentieth-Century United States*** or Intro to Music Appreciation or Any literature with prerequisite of no more than English Composition I ***Satisfies the State of Missouri government requirement.**	6	ENGLISH 1211 or ENGLISH 1212 or HISTORY 1300* or HISTORY 1310* or MUSIC 1150 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American History to 1877* or American History Since 1877* or Music Understanding and Appreciation or Any literature with prerequisite of no more than ENGLISH 1120. ***Satisfies the State of Missouri government requirement.**	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines to include PHILOS 3223.					
PHIL 2340	Bioethics	3	PHILOS 3223	Bioethics	3
HIST 1100or **POLT 1060*** or PSYC 1030 or ECON 2020 or ECON 2030 or Foreign Language	World Civilizations before 1500 or **Intro to American Politics*** or Intro to Psychology* or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	3	HISTORY 1100 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization 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
Humanities, Arts, and Social Sciences ENGLISH 3560 required.					
WRIT 3200	Technical Writing	3	ENGLISH 3560	Technical Writing	3
	No free electives applied to the degree.	0		Maximum Free Electives	0
	Group 2 Major Requirements	40		Group 2 Major Requirements	41
	Group 1 Core Requirements	24		Group 1 Core Requirements	22
	Total Hours	64		Total Hours*	63
				*S&T advisor permission is required to transfer more than 69 credit hours toward the degree.	

Biomedical Engineering-Biomaterials
Group 2 Major Requirements

Webster University		Semester	Missouri S&T		
SPMC 1040	Public Speaking	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 1100, 1101	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHEM 1110, 1111	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 2100	Organic Chemistry I	3	CHEM 2210, 2219*	Organic Chemistry I and Lab* *CHEM 2219 Lab applies to the degree as a Track Elective (non-engineering).	4
CHEM 2110	Organic Chemistry II	3	CHEM 2220, 2229*	Organic Chemistry II and Lab* CHEM 2229 Lab applies to the degree as a Track Elective (non-engineering).	4
BIOL 1550, 1551	Essentials of Biology I and Lab	5	BIO SCI 1113*, 1219*	General Biology* and Lab* *Applies to degree as Track Elective (Non-engineering).	4
BIOL 3080, 3081	Cell Biology and Lab	4	BIO SCI 2213, 2219	Cell Biology and Lab	4
COSC 1550	Computer Programming I	3	COMP SCI 1971,1981*	Intro to Programming Methodology and Lab*(C++) (3) *Will be substituted for COMP SCI 1500.	3
	Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. ***At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.**				
	Humanities and Fine Arts Select 6 hours from at least two specific disciplines.				
ENGL 2020 or ENGL 2030 or **HIST 1310*** or **HIST 1320*** or MUSC 1050 or Literature	Major British Writers I or Major British Writers II or **Nineteenth-Century America*** or **Twentieth-Century United States*** or Intro to Music Appreciation or Any literature with prerequisite of no more than English Composition I ***Satisfies the State of Missouri government requirement.**	6	ENGLISH 1211 or ENGLISH 1212 or HISTORY 1300* or HISTORY 1310* or MUSIC 1150 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American History to 1877* or American History Since 1877* or Music Understanding and Appreciation or Any literature with prerequisite of no more than ENGLISH 1120. ***Satisfies the State of Missouri government requirement.**	6
	Behavioral and Social Sciences Select 6 hours from at least two specific disciplines to include PHILOS 3223.				
PHIL 2340	Bioethics	3	PHILOS 3223	Bioethics	3
HIST 1100or **POLT 1060*** or PSYC 1030 or ECON 2020 or ECON 2030 or Foreign Language	World Civilizations before 1500 or **Intro to American Politics*** or Intro to Psychology* or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	3	HISTORY 1100 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization 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
	Humanities, Arts, and Social Sciences ENGLISH 3560 required.				
WRIT 3200	Technical Writing	3	ENGLISH 3560	Technical Writing	3
	No free electives applied to the degree.	0		Maximum Free Electives	0
	Group 2 Major Requirements	44		Group 2 Major Requirements	45
	Group 1 Core Requirements	24		Group 1 Core Requirements	22
	Total Hours	68		Total Hours*	67

*S&T advisor permission is required to transfer more than 69 credits toward the S&T Biomedical Engineering degree.

Ceramic Engineering Group 2 Major Requirements

Webster University		Semester	Missouri S&T		
WRIT 3200 or SPMC 1040	Technical Writing or Public Speaking	3	ENGLISH 3560 or SPMS 1185	Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 1100, 1101	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHEM 1110, 1111	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
COSC 1550	Computer Programming I	3	COMP SCI 1971,1981*	Intro to Programming Methodology and Lab*(C++) (3) *Will be substituted for COMP SCI 1500.	3
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. ***At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.**					
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.					
ENGL 2020 or ENGL 2030 or **HIST 1310*** or **HIST 1320*** or MUSC 1050 or Literature	Major British Writers I or Major British Writers II or **Nineteenth-Century America*** or **Twentieth-Century United States*** or Intro to Music Appreciation or Any literature with prerequisite of no more than English Composition I ***Satisfies the State of Missouri government requirement.**	6	ENGLISH 1211 or ENGLISH 1212 or HISTORY 1300* or HISTORY 1310* or MUSIC 1150 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American History to 1877* or American History Since 1877* or Music Understanding and Appreciation or Any literature with prerequisite of no more than ENGLISH 1120. ***Satisfies the State of Missouri government requirement.**	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
HIST 1100 or PHIL 1010 or PHIL 2010 or **POLT 1060*** or PSYC 1030 or ECON 2020 or ECON 2030 or Foreign Language	World Civilizations before 1500 or Intro to Philosophy or Informal Logic or **Intro to American Politics*** or Intro to Psychology* or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6	HISTORY 1100 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or 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 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	29		Group 2 Major Requirements	29
	Group 1 Core Requirements	24		Group 1 Core Requirements	22
	Total Hours	53		Total Hours*	51
				*S&T advisor permission is required to transfer more than 68 credits toward the S&T Ceramic Engineering degree.	

Chemical Engineering or
Chemical Engineering - Biochemical Engineering Emphasis
Group 2 Major Requirements

Webster University			Semester	Missouri S&T		
SPMC 1040	Public Speaking	3		SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 1100, 1101	General Chemistry I and Lab	4		CHEM 1310, 1319	General Chemistry I and Lab	5
CHEM 1110, 1111	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 2100	Organic Chemistry I	3		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 2110 or CHEM 3300, 3301 or BIOL 3080, 3081 or CHEM 3100, 3101, 3111	Organic Chemistry II (3) or Analytical Chemistry and Lab (4) Cell Biology and Lab or Biochemistry I with Lab AND Biochemistry II Lab* *CHEM 3110 Biochemistry II is not an S&T degree requirement. If taken, will transfer as CHEM 4620.	8		CHEM 2220 or CHEM 2510 or BIO SCI 2213, 2219 or CHEM 4610, 4619	Organic Chemistry II (3) or Analytical Chemistry (4) or Cell Biology and Lab (4)) or General Biochemistry 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
COSC 1550	Computer Programming I	3		COMP SCI 1971,1981*	Intro to Programming Methodology and Lab*(C++) (3) *Will be substituted for COMP SCI 1500.	3
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. ***At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.**						
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.						
ENGL 2020 or ENGL 2030 or **HIST 1310*** or **HIST 1320*** or MUSC 1050 or Literature	Major British Writers I or Major British Writers II or **Nineteenth-Century America*** or **Twentieth-Century United States*** or Intro to Music Appreciation or Any literature with prerequisite of no more than English Composition I ***Satisfies the State of Missouri government requirement.**	6		ENGLISH 1211 or ENGLISH 1212 or HISTORY 1300* or HISTORY 1310* or MUSIC 1150 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American History to 1877* or American History Since 1877* or Music Understanding and Appreciation or Any literature with prerequisite of no more than ENGLISH 1120. ***Satisfies the State of Missouri government requirement.**	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.						
HIST 1100 or PHIL 1010 or PHIL 2010 or **POLT 1060*** or PSYC 1030 or ECON 2020 or ECON 2030 or Foreign Language	World Civilizations before 1500 or Intro to Philosophy or Informal Logic or **Intro to American Politics*** or Intro to Psychology* or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6		HISTORY 1100 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or 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 Social Sciences ENGLISH 3560 required.						
WRIT 3200	Technical Writing	3		ENGLISH 3560	Technical Writing	3
	No free electives applied to the degree.	0			Maximum Free Electives	0
	Group 2 Major Requirements	40			Group 2 Major Requirements	41
	Group 1 Core Requirements	24			Group 1 Core Requirements	22
	Total Hours	64			Total Hours*	63
					*S&T advisor permission is required to transfer more than 68 credits toward the S&T Chemical Engineering degree.	

Civil Engineering Group 2 Major Requirements

	Webster University		Semester		Missouri S&T	
WRIT 3200 or SPMC 1040	Technical Writing or Public Speaking	3		ENGLISH 3560 or SPMS 1185	Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 1100, 1101	General Chemistry I and Lab	4		CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. ***At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.**						
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.						
ENGL 2020 or ENGL 2030 or **HIST 1310*** or **HIST 1320*** or MUSC 1050 or Literature	Major British Writers I or Major British Writers II or **Nineteenth-Century America*** or **Twentieth-Century United States*** or Intro to Music Appreciation or Any literature with prerequisite of no more than English Composition I ***Satisfies the State of Missouri government requirement.**	6		ENGLISH 1211 or ENGLISH 1212 or HISTORY 1300* or HISTORY 1310* or MUSIC 1150 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American History to 1877* or American History Since 1877* or Music Understanding and Appreciation or Any literature with prerequisite of no more than ENGLISH 1120. ***Satisfies the State of Missouri government requirement.**	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.						
HIST 1100 or PHIL 1010 or PHIL 2010 or **POLT 1060*** or PSYC 1030 or ECON 2020 or ECON 2030 or Foreign Language	World Civilizations before 1500 or Intro to Philosophy or Informal Logic or **Intro to American Politics*** or Intro to Psychology* or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6		HISTORY 1100 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or 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 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	22			Group 2 Major Requirements	23
	Group 1 Core Requirements	24			Group 1 Core Requirements	22
	Total Hours	46			Total Hours*	70
					*S&T advisor permission is required to transfer more than 69 credits toward the S&T Civil Engineering degree.	

Computer Engineering Group 2 Major Requirements

Webster University		Semester	Missouri S&T		
SPMC 1040	Public Speaking	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 1100, 1101	General Chemistry I and Lab	4	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
COSC 1550	Computer Programming I	3	COMP SCI 1971,1981*	Intro to Programming Methodology and Lab*(C++) (3) *Will be substituted for COMP SCI 1500.	3
CHEM 2100 or BIOL 3080 or BIOL 3050, 3051	Organic Chemistry I (3) or Cell Biology (3) or Genetics and Lab (4)	3	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
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. ***At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.**					
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.					
ENGL 2020 or ENGL 2030 or **HIST 1310*** or **HIST 1320*** or MUSC 1050 or Literature	Major British Writers I or Major British Writers II or **Nineteenth-Century America*** or **Twentieth-Century United States*** or Intro to Music Appreciation or Any literature with prerequisite of no more than English Composition I ***Satisfies the State of Missouri government requirement.**	6	ENGLISH 1211 or ENGLISH 1212 or HISTORY 1300* or HISTORY 1310* or MUSIC 1150 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American History to 1877* or American History Since 1877* or Music Understanding and Appreciation or Any literature with prerequisite of no more than ENGLISH 1120. ***Satisfies the State of Missouri government requirement.**	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
HIST 1100 or PHIL 1010 or PHIL 2010 or **POLT 1060*** or PSYC 1030 or ECON 2020 or ECON 2030 or Foreign Language	World Civilizations before 1500 or Intro to Philosophy or Informal Logic or **Intro to American Politics*** or Intro to Psychology* or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6	HISTORY 1100 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or 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 Social Sciences Select 3 hours.					
WRIT 3200	Technical Writing	3	ENGLISH 3560	Technical Writing	3
Electives	Maximum Free Electives	3	Electives	Maximum Free Electives	3
	Group 2 Major Requirements	31		Group 2 Major Requirements	32
	Group 1 Core Requirements	24		Group 1 Core Requirements	22
	Total Hours	55		Total Hours*	54

*S&T advisor permission is required to transfer more than 68 credits toward the S&T Computer Engineering degree.

Electrical Engineering Group 2 Major Requirements

Webster University		Semester	Missouri S&T		
SPMC 1040	Public Speaking	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 1100, 1101	General Chemistry I and Lab	4	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
COSC 1550	Computer Programming I	3	COMP SCI 1971,1981*	Intro to Programming Methodology and Lab*(C++) (3) *Will be substituted for COMP SCI 1500.	3
CHEM 2100 or BIOL 3080 or BIOL 3050, 3051	Organic Chemistry I (3) or Cell Biology (3) or Genetics and Lab (4)	3	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
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. ***At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.**					
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.					
ENGL 2020 or ENGL 2030 or **HIST 1310*** or **HIST 1320*** or MUSC 1050 or Literature	Major British Writers I or Major British Writers II or **Nineteenth-Century America*** or **Twentieth-Century United States*** or Intro to Music Appreciation or Any literature with prerequisite of no more than English Composition I ***Satisfies the State of Missouri government requirement.**	6	ENGLISH 1211 or ENGLISH 1212 or HISTORY 1300* or HISTORY 1310* or MUSIC 1150 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American History to 1877* or American History Since 1877* or Music Understanding and Appreciation or Any literature with prerequisite of no more than ENGLISH 1120. ***Satisfies the State of Missouri government requirement.**	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
HIST 1100 or PHIL 1010 or PHIL 2010 or **POLT 1060*** or PSYC 1030 or ECON 2020 or ECON 2030 or Foreign Language	World Civilizations before 1500 or Intro to Philosophy or Informal Logic or **Intro to American Politics*** or Intro to Psychology* or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6	HISTORY 1100 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or 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 Social Sciences Select 3 hours.					
WRIT 3200	Technical Writing	3	ENGLISH 3560	Technical Writing	3
Electives	Maximum Free Electives	6	Electives	Maximum Free Electives	6
	Group 2 Major Requirements	34		Group 2 Major Requirements	35
	Group 1 Core Requirements	24		Group 1 Core Requirements	22
	Total Hours	58		Total Hours*	57
				*S&T advisor permission is required to transfer more than 68 credits toward the S&T Electrical Engineering degree.	

Engineering Management Group 2 Major Requirements

Webster University			Semester	Missouri S&T		
SPMC 1040	Public Speaking	3		SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 1100, 1101	General Chemistry I and Lab	4		CHEM 1310, 1319	General Chemistry I and Lab	5
COSC 1550	Computer Programming I	3		COMP SCI 1971, 1981	Intro to Programming Method and Lab (C++)	3
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. ***At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.**						
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.						
ENGL 2020 or ENGL 2030 or **HIST 1310*** or **HIST 1320*** or MUSC 1050 or Literature	Major British Writers I or Major British Writers II or **Nineteenth-Century America*** or **Twentieth-Century United States*** or Intro to Music Appreciation or Any literature with prerequisite of no more than English Composition I ***Satisfies the State of Missouri government requirement.**	6		ENGLISH 1211 or ENGLISH 1212 or HISTORY 1300* or HISTORY 1310* or MUSIC 1150 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American History to 1877* or American History Since 1877* or Music Understanding and Appreciation or Any literature with prerequisite of no more than ENGLISH 1120. ***Satisfies the State of Missouri government requirement.**	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines to include PSYCH 1101.						
PSYC 1030	Intro to Psychology	3		PSYCH 1101	General Psychology Required	3
HIST 1100 or PHIL 1010 or PHIL 2010 or **POLT 1060*** or ECON 2020 or ECON 2030 or Foreign Language	World Civilizations before 1500 or Intro to Philosophy or Informal Logic or **Intro to American Politics*** or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	3		HISTORY 1100 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization 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
Humanities, Arts, and Social Sciences Select 3 hours.						
WRIT 3200	Technical Writing	3		ENGLISH 3560	Technical Writing	3
	No free electives applied to the degree.	0		Electives	Maximum Free Electives	0
	Group 2 Major Requirements	25			Group 2 Major Requirements	26
	Group 1 Core Requirements	24			Group 1 Core Requirements	22
	Total Hours	49			Total Hours*	61
					*S&T advisor permission is required to transfer more than 61 credits toward the S&T Engineering Management degree.	

Environmental Engineering Group 2 Major Requirements

Webster University			Semester	Missouri S&T		
WRIT 3200 or SPMC 1040	Technical Writing or Public Speaking	3		ENGLISH 3560 or SPMS 1185	Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 1100, 1101	General Chemistry I and Lab	4		CHEM 1310, 1319	General Chemistry I and Lab	5
CHEM 1110, 1111	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 1550, 1551	Essentials of Biology and Lab	5		BIO SCI 1113, 1219*	General Biology (3) and Lab* (1) *The lab is not a degree requirement, transfers as general elective credit.	3
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 9 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 3 hours Behavioral and Social Sciences. ***At least one course must be selected from HISTORY 1200, 1300, or 1310 to satisfy the State of Missouri government requirement and a degree-specific gen ed requirement.**						
Humanities and Fine Arts Select 6 hours from at least two specific disciplines. At least one course in either the HFA or the BSS (below) section must be selected from HISTORY 1200, 1300, or 1310.						
ENGL 2020 or ENGL 2030 or **HIST 1310*** or **HIST 1320*** or MUSC 1050 or Literature	Major British Writers I or Major British Writers II or **Nineteenth-Century America*** or **Twentieth-Century United States*** or Intro to Music Appreciation or Any literature with prerequisite of no more than English Composition I ***Satisfies the State of Missouri government requirement.**	6		ENGLISH 1211 or ENGLISH 1212 or HISTORY 1300* or HISTORY 1310* or MUSIC 1150 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American History to 1877* or American History Since 1877* or Music Understanding and Appreciation or Any literature with prerequisite of no more than ENGLISH 1120. ***Satisfies the State of Missouri government requirement.**	6
Behavioral and Social Sciences Select 3 hours.						
PHIL 1010 or PHIL 2010 or PSYC 1030 or ECON 2020 or ECON 2030 or Foreign Language	Intro to Philosophy or Informal Logic or Intro to Psychology* or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	3		PHILOS 1105 or PHILOS 1115 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 General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement and a degree-specific gen ed requirement.**	3
	No free electives applied to the degree.	0			Maximum Free Electives	0
	Group 2 Major Requirements	25			Group 2 Major Requirements	23
	Group 1 Core Requirements	24			Group 1 Core Requirements	22
	Total Hours	49			Total Hours*	45

*S&T advisor permission is required to transfer more than 69 credits toward the S&T Environmental Engineering degree.

Geological Engineering Group 2 Major Requirements

Webster University			Semester	Missouri S&T		
WRIT 3200	Technical Writing	3		ENGLISH 3560	Technical Writing Applies to degree as Gen Ed Communication requirement.	3
CHEM 1100, 1101	General Chemistry I and Lab	4		CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. ***At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.**						
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.						
ENGL 2020 or ENGL 2030 or **HIST 1310*** or **HIST 1320*** or MUSC 1050 or Literature	Major British Writers I or Major British Writers II or **Nineteenth-Century America*** or **Twentieth-Century United States*** or Intro to Music Appreciation or Any literature with prerequisite of no more than English Composition I ***Satisfies the State of Missouri government requirement.**	6		ENGLISH 1211 or ENGLISH 1212 or HISTORY 1300* or HISTORY 1310* or MUSIC 1150 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American History to 1877* or American History Since 1877* or Music Understanding and Appreciation or Any literature with prerequisite of no more than ENGLISH 1120. ***Satisfies the State of Missouri government requirement.**	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.						
HIST 1100 or PHIL 1010 or PHIL 2010 or **POLT 1060*** or PSYC 1030 or ECON 2020 or ECON 2030 or Foreign Language	World Civilizations before 1500 or Intro to Philosophy or Informal Logic or **Intro to American Politics*** or Intro to Psychology* or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6		HISTORY 1100 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or 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 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	22			Group 2 Major Requirements	23
	Group 1 Core Requirements	24			Group 1 Core Requirements	22
	Total Hours	46			Total Hours*	64
					*S&T advisor permission is required to transfer more than 65 credits toward the S&T Geological Engineering degree.	

Mechanical Engineering Group 2 Major Requirements

Webster University		Semester	Missouri S&T		
WRIT 3200 or SPMC 1040	Technical Writing or Public Speaking	3	ENGLISH 3560 or SPMS 1185	Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 1100, 1101	General Chemistry I and Lab	4	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
COSC 1550	Computer Programming I	3	COMP SCI 1971, 1981	Intro to Programming Method and Lab (C++)	3
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. ***At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.**					
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.					
ENGL 2020 or ENGL 2030 or **HIST 1310*** or **HIST 1320*** or MUSC 1050 or Literature	Major British Writers I or Major British Writers II or **Nineteenth-Century America*** or **Twentieth-Century United States*** or Intro to Music Appreciation or Any literature with prerequisite of no more than English Composition I ***Satisfies the State of Missouri government requirement.**	6	ENGLISH 1211 or ENGLISH 1212 or HISTORY 1300* or HISTORY 1310* or MUSIC 1150 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American History to 1877* or American History Since 1877* or Music Understanding and Appreciation or Any literature with prerequisite of no more than ENGLISH 1120. ***Satisfies the State of Missouri government requirement.**	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
HIST 1100 or PHIL 1010 or PHIL 2010 or **POLT 1060*** or PSYC 1030 or ECON 2020 or ECON 2030 or Foreign Language	World Civilizations before 1500 or Intro to Philosophy or Informal Logic or **Intro to American Politics*** or Intro to Psychology* or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6	HISTORY 1100 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or 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 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	25		Group 2 Major Requirements	26
	Group 1 Core Requirements	24		Group 1 Core Requirements	22
	Total Hours	49		Total Hours*	48
				*S&T advisor permission is required to transfer more than 68 credits toward the S&T Mechanical Engineering degree.	

Metallurgical Engineering Group 2 Major Requirements

Webster University			Semester	Missouri S&T		
WRIT 3200 or SPMC 1040	Technical Writing or Public Speaking	3		ENGLISH 3560 or SPMS 1185	Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
COSC 1550	Computer Programming I	3		COMP SCI 1971,1981*	Intro to Programming Methodology and Lab*(C++) (3) *Will be substituted for COMP SCI 1500.	3
CHEM 1100, 1101	General Chemistry I and Lab	4		CHEM 1310, 1319	General Chemistry I and Lab	3
CHEM 1110, 1111	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 2100 or CHEM 4100	Organic Chemistry I or Inorganic Chemistry (3)	3		CHEM 2210 or CHEM 3310	Organic Chemistry I (3) or Inorganic Chemistry I (3) Not specifically required for the degree but will satisfy out-of-department technical elective requirement	3
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. ***At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.**						
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.						
ENGL 2020 or ENGL 2030 or **HIST 1310*** or **HIST 1320*** or MUSC 1050 or Literature	Major British Writers I or Major British Writers II or **Nineteenth-Century America*** or **Twentieth-Century United States*** or Intro to Music Appreciation or Any literature with prerequisite of no more than English Composition I ***Satisfies the State of Missouri government requirement.**	6		ENGLISH 1211 or ENGLISH 1212 or HISTORY 1300* or HISTORY 1310* or MUSIC 1150 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American History to 1877* or American History Since 1877* or Music Understanding and Appreciation or Any literature with prerequisite of no more than ENGLISH 1120. ***Satisfies the State of Missouri government requirement.**	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.						
HIST 1100 or PHIL 1010 or PHIL 2010 or **POLT 1060*** or PSYC 1030 or ECON 2020 or ECON 2030 or Foreign Language	World Civilizations before 1500 or Intro to Philosophy or Informal Logic or **Intro to American Politics*** or Intro to Psychology* or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6		HISTORY 1100 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or 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 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.	3			Maximum Free Electives	0
	Group 2 Major Requirements	35			Group 2 Major Requirements	30
	Group 1 Core Requirements	24			Group 1 Core Requirements	22
	Total Hours	59			Total Hours*	68
					*S&T advisor permission is required to transfer more than 68 credits toward the S&T Metallurgical Engineering degree.	

Mining Engineering Group 2 Major Requirements

Webster University		Semester	Missouri S&T		
WRIT 3200 or SPMC 1040	Technical Writing or Public Speaking	3	ENGLISH 3560 or SPMS 1185	Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 1100, 1101	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 12 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. ***At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.**					
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.					
ENGL 2020 or ENGL 2030 or **HIST 1310*** or **HIST 1320*** or MUSC 1050 or Literature	Major British Writers I or Major British Writers II or **Nineteenth-Century America*** or **Twentieth-Century United States*** or Intro to Music Appreciation or Any literature with prerequisite of no more than English Composition I ***Satisfies the State of Missouri government requirement.**	6	ENGLISH 1211 or ENGLISH 1212 or HISTORY 1300* or HISTORY 1310* or MUSIC 1150 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American History to 1877* or American History Since 1877* or Music Understanding and Appreciation or Any literature with prerequisite of no more than ENGLISH 1120. ***Satisfies the State of Missouri government requirement.**	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
HIST 1100 or PHIL 1010 or PHIL 2010 or **POLT 1060*** or PSYC 1030 or ECON 2020 or ECON 2030 or Foreign Language	World Civilizations before 1500 or Intro to Philosophy or Informal Logic or **Intro to American Politics*** or Intro to Psychology* or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6	HISTORY 1100 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or **American Government*** or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6
No free electives applied to the degree.		0		Maximum Free Electives	0
Group 2 Major Requirements		19		Group 2 Major Requirements	20
Group 1 Core Requirements		24		Group 1 Core Requirements	22
	Total Hours	43		Total Hours*	42

*S&T advisor permission is required to transfer more than 68 credits toward the S&T Mining Engineering degree.

Nuclear Engineering Group 2 Major Requirements

	Webster University	Semester		Missouri S&T	
WRIT 3200 or SPMC 1040	Technical Writing or Public Speaking	3	ENGLISH 3560 or SPMS 1185	Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 1100, 1101	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5
COSC 1550	Computer Programming I	3	COMP SCI 1971,1981	Intro to Programming Methodology and Lab(C++)	3
	Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. ***At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.**				
	Humanities and Fine Arts Select 6 hours from at least two specific disciplines.				
ENGL 2020 or ENGL 2030 or **HIST 1310*** or **HIST 1320*** or MUSC 1050 or Literature	Major British Writers I or Major British Writers II or **Nineteenth-Century America*** or **Twentieth-Century United States*** or Intro to Music Appreciation or Any literature with prerequisite of no more than English Composition I ***Satisfies the State of Missouri government requirement.**	6	ENGLISH 1211 or ENGLISH 1212 or HISTORY 1300* or HISTORY 1310* or MUSIC 1150 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American History to 1877* or American History Since 1877* or Music Understanding and Appreciation or Any literature with prerequisite of no more than ENGLISH 1120. ***Satisfies the State of Missouri government requirement.**	6
	Behavioral and Social Sciences Select 6 hours from at least two specific disciplines to include either ECON 1100 or 1200.				
ECON 2020 or ECON 2030	Principles of Microeconomics or Principles of Macroeconomics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3
HIST 1100 or PHIL 1010 or PHIL 2010 or **POLT 1060*** or PSYC 1030 or Foreign Language	World Civilizations before 1500 or Intro to Philosophy or Informal Logic or **Intro to American Politics*** or Intro to Psychology* or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	3	HISTORY 1100or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or Foreign Language	Early Western Civilization 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
	Humanities, 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
	Maximum Free Electives	0		Maximum Free Electives	0
	Group 2 Major Requirements	25		Group 2 Major Requirements	26
	Group 1 Core Requirements	24		Group 1 Core Requirements	22
	Total Hours	49		Total Hours*	48
				*S&T advisor permission is required to transfer more than 69 credits toward the S&T Nuclear Engineering degree.	

Petroleum Engineering Group 2 Major Requirements

Webster University			Semester	Missouri S&T		
WRIT 3200 or SPMC 1040	Technical Writing or Public Speaking	3		ENGLISH 3560 or SPMS 1185	Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 1100, 1101	General Chemistry I and Lab	4		CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. ***At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.**						
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.						
ENGL 2020 or ENGL 2030 or **HIST 1310*** or **HIST 1320*** or MUSC 1050 or Literature	Major British Writers I or Major British Writers II or **Nineteenth-Century America*** or **Twentieth-Century United States*** or Intro to Music Appreciation or Any literature with prerequisite of no more than English Composition I ***Satisfies the State of Missouri government requirement.**	6		ENGLISH 1211 or ENGLISH 1212 or HISTORY 1300* or HISTORY 1310* or MUSIC 1150 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American History to 1877* or American History Since 1877* or Music Understanding and Appreciation or Any literature with prerequisite of no more than ENGLISH 1120. ***Satisfies the State of Missouri government requirement.**	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.						
HIST 1100 or PHIL 1010 or PHIL 2010 or **POLT 1060*** or PSYC 1030 or ECON 2020 or ECON 2030 or Foreign Language	World Civilizations before 1500 or Intro to Philosophy or Informal Logic or **Intro to American Politics*** or Intro to Psychology* or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6		HISTORY 1100 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or 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 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	22			Group 2 Major Requirements	23
	Group 1 Core Requirements	24			Group 1 Core Requirements	22
	Total Hours	46			Total Hours*	45
					*S&T advisor permission is required to transfer more than 69 credits toward the S&T Petroleum Engineering degree.	

Semiconductor Engineering-Device Engineering Emphasis
Group 2 Major Requirements

Webster University		Semester	Missouri S&T		
WRIT 3200 or SPMC 1040	Technical Writing or Public Speaking	3	ENGLISH 3560 or SPMS 1185	Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 1100, 1101	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHEM 1110, 1111	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
COSC 1550	Computer Programming I	3	COMP SCI 1971,1981*	Intro to Programming Methodology and Lab*(C++) (3) *Will be substituted for COMP SCI 1500.	3
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. ***At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.**					
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.					
ENGL 2020 or ENGL 2030 or **HIST 1310*** or **HIST 1320*** or MUSC 1050 or Literature	Major British Writers I or Major British Writers II or **Nineteenth-Century America*** or **Twentieth-Century United States*** or Intro to Music Appreciation or Any literature with prerequisite of no more than English Composition I ***Satisfies the State of Missouri government requirement.**	6	ENGLISH 1211 or ENGLISH 1212 or HISTORY 1300* or HISTORY 1310* or MUSIC 1150 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American History to 1877* or American History Since 1877* or Music Understanding and Appreciation or Any literature with prerequisite of no more than ENGLISH 1120. ***Satisfies the State of Missouri government requirement.**	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
HIST 1100 or PHIL 1010 or PHIL 2010 or **POLT 1060*** or PSYC 1030 or ECON 2020 or ECON 2030 or Foreign Language	World Civilizations before 1500 or Intro to Philosophy or Informal Logic or **Intro to American Politics*** or Intro to Psychology* or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6	HISTORY 1100 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or 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 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
	Maximum Free Electives	3		Maximum Free Electives	3
	Group 2 Major Requirements	32		Group 2 Major Requirements	32
	Group 1 Core Requirements	24		Group 1 Core Requirements	22
	Total Hours	56		Total Hours*	54
				*S&T advisor permission is required to transfer more than 68 credits toward the S&T Ceramic Engineering degree.	

Semiconductor Engineering-Process Engineering Emphasis
Group 2 Major Requirements

Webster University		Semester	Missouri S&T		
WRIT 3200 or SPMC 1040	Technical Writing or Public Speaking	3	ENGLISH 3560 or SPMS 1185	Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 1100, 1101	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHEM 1110, 1111	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
COSC 1550	Computer Programming I	3	COMP SCI 1971,1981*	Intro to Programming Methodology and Lab*(C++) (3) *Will be substituted for COMP SCI 1500.	3
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. ***At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.**					
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.					
ENGL 2020 or ENGL 2030 or **HIST 1310*** or **HIST 1320*** or MUSC 1050 or Literature	Major British Writers I or Major British Writers II or **Nineteenth-Century America*** or **Twentieth-Century United States*** or Intro to Music Appreciation or Any literature with prerequisite of no more than English Composition I ***Satisfies the State of Missouri government requirement.**	6	ENGLISH 1211 or ENGLISH 1212 or HISTORY 1300* or HISTORY 1310* or MUSIC 1150 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or American History to 1877* or American History Since 1877* or Music Understanding and Appreciation or Any literature with prerequisite of no more than ENGLISH 1120. ***Satisfies the State of Missouri government requirement.**	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
HIST 1100 or PHIL 1010 or PHIL 2010 or **POLT 1060*** or PSYC 1030 or ECON 2020 or ECON 2030 or Foreign Language	World Civilizations before 1500 or Intro to Philosophy or Informal Logic or **Intro to American Politics*** or Intro to Psychology* or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6	HISTORY 1100 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or 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 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
	Maximum Free Electives	3		Maximum Free Electives	3
	Group 2 Major Requirements	32		Group 2 Major Requirements	32
	Group 1 Core Requirements	24		Group 1 Core Requirements	22
	Total Hours	56		Total Hours*	54
				*S&T advisor permission is required to transfer more than 68 credits toward the S&T Ceramic Engineering degree.	