Southeast Missouri State 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.

Southeast Missouri State University			Semester	Missouri S&T		
MA 140	Analytic Geometry & Calculus I	5		MATH 1214	Calculus I Grade of C or better is required.	4
MA 145	Analytic Geometry & Calculus II	4		MATH 1215	Calculus II Grade of C or better is required.	4
MA 244	Analytic Geometry & Calculus III	4		MATH 2222	Calculus III Grade of C or better is required.	4
MA 350	Differential Equations I	3		MATH 3304	Elementary Differential Equations	3
PH 230	General Physics I	5		PHYSICS 1135	Engineering Physics I Grade of C or better is required.	4
PH 231	General Physics II	5		PHYSICS 2135	Engineering Physics II Grade of C or better is required.	4
EP 100	Intro to Engineering	3		FR ENG 1100	Study and Careers in Engineering and Computing	1
EN 100	English Composition	3		ENGLISH 1120	Exposition and Argumentation	3
	Total Hours	32			Total Hours	27

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

Southeast Missouri State University			Semester	Missouri S&T		
MN 120	Fundamentals of Engineering Design Processes	3		MECH ENG 1720	Intro to Engineering Design	3
EN 140 or SC 105 or EN 309 or IM 300	Rhetoric and Critical Thinking or Fundamentals of Oral Communication or Writing for Science and Technology or Technical Communication	3		ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CH 185, 184	General Chemistry I and Lab	4		CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
EP 240	Circuit Analysis I	3		ELEC ENG 2800	Electrical Circuits	3
EP 261	Engineering Mechanics-Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
EP 263	Mechanics of Materials	4		CIV ENG 2210, 2211*	Mechanics of Materials* (3) and Materials Testing* (1) *CIV ENG 2211 is not a degree requirement. Transfers as general elective credit.	3
MA 345	Linear Algebra	3		MATH 3108	Satisfies the Advanced Math/Comp Sci elective requirement.	3
PL 204	Ethical Theory 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.						
LI 260 or LI 261 or LI 270 or LI 271 or LI 211 or **US 105*** or **US 107*** or AR 112 or CM 226 or MU 182 or TH 100 or Literature	English Literature I or English Literature II or American Literature I or American Literature II or World Literature I or **American History I*** or **American History II*** or Perspectives in Art or Residential Architectural Drafting and Design or Music: An Artistic Expression or Theatre 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 ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or **HISTORY 1300*** or **HISTORY 1310*** or ART 1180 or ART 3203 or MUSIC 1150 or THEATRE 1190 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or 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 Architectural Design I or Music Appreciation or Theatre via Video 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.						
EH 101 or **EH 103*** or GG 180 or PL 110 or PL 120 or **PS 103*** or PY 101 or EC 215 or EC 225 or Foreign Language	Early European Civilization or **Modern European Civilization*** or Cultural Geography MOTR GEOG 101 or Readings in Philosophy or Symbolic Logic I or **US Political Systems*** 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 **HISTORY 1200*** or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or **Modern Western Civilization*** or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or **American Government*** or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6
Humanities, 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	41			Group 2 Major Requirements	41
	Group 1 Core Requirements	32			Group 1 Core Requirements	27
	Total Hours	73			Total Hours*	68
					*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

Southeast Missouri State University		Semester	Missouri S&T		Semester
MN 120	Fundamentals of Engineering Design Processes	3	MECH ENG 1720	Intro to Engineering Design	3
EN 140 or SC 105 or EN 309 or IM 300	Rhetoric and Critical Thinking or Fundamentals of Oral Communication or Writing for Science and Technology or Technical Communication	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CH 185, 184	General Chemistry I and Lab	4	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
EP 261	Engineering Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EP 262	Engineering Mechanics Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
EP 263	Mechanics of Materials	4	CIV ENG 2210, 2211	Mechanics of Materials and Materials Testing	4
GO 110	Physical Geology	3	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	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 to include ART 3203.					
CM 226	Residential Architectural Drafting and Design	3	ART 3203	Architectural Design I	3
LI 260 or LI 261 or LI 270 or LI 271 or LI 211 or **US 105*** or **US 107*** or MU 182 or TH 100 or Literature	English Literature I or English Literature II or American Literature I or American Literature II or World Literature I or **American History I*** or **American History II*** or Music: An Artistic Expression or Theatre 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 ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or **HISTORY 1300*** or **HISTORY 1310*** or MUSIC 1150 or THEATRE 1190 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or **American History to 1877*** or **American History Since 1877*** or Music Appreciation or Theatre via Video or Any literature with prerequisite of no more than ENGLISH 1120. ***Satisfies the State of Missouri government requirement.**	3
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines, to include HISTORY 1200.					
EH 103*	**Modern European Civilization*** ***Satisfies the State of Missouri government requirement.**	3	**HISTORY 1200***	**Modern Western Civilization*** ***Satisfies the State of Missouri Government requirement.**	3
PL 110 or PL 120 or **PS 103*** or PY 101 or EC 215 or EC 225 or Foreign Language	Readings in Philosophy or Symbolic Logic I or **US Political Systems*** 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	38		Group 2 Major Requirements	38
	Group 1 Core Requirements	32		Group 1 Core Requirements	27
	Total Hours	70		Total Hours*	65
				*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

Southeast Missouri State University			Semester	Missouri S&T		
SC 105	Fundamentals of Oral Communication	3		SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CH 185, 184	General Chemistry I and Lab	4		CHEM 1310, 1319	General Chemistry I and Lab	5
CH 186, 187	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
CH 341, 342	Foundations of Organic Chemistry (4) and Lab (1)	5		CHEM 2210, 2219	Organic Chemistry I and Lab	4
CH 343, 344 or BS 218 or BI 283	Advanced Organic Chemistry (3) and Lab (2) or Biological Science: A Process Approach MOTR BIOL 100L or Genetics (4)	5		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
BS 113	Anatomy and Physiology I	4		BIO SCI 3333, 3359	Anatomy and Physiology I and Lab	4
CS 101 or CS 155 or CS 265 or CS 300 or CS 351	Intro to Computer Programming or Computer Science I or Computer Science II or Computer Science III or C and the Posix Environment	3		COMP SCI 1500	Computational Problem Solving	3
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 12 hours to include 6 hours Humanities and 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, 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.						
LI 260 or LI 261 or LI 270 or LI 271 or LI 211 or **US 105*** or **US 107*** or AR 112 or CM 226 or MU 182 or TH 100 or Literature	English Literature I or English Literature II or American Literature I or American Literature II or World Literature I or **American History I*** or **American History II*** or Perspectives in Art or Residential Architectural Drafting and Design or Music: An Artistic Expression or Theatre 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 ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or **HISTORY 1300*** or **HISTORY 1310*** or ART 1180 or ART 3203 or MUSIC 1150 or THEATRE 1190 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or 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 Architectural Design I or Music Appreciation or Theatre via Video 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.						
EH 101 or **EH 103*** or GG 180 or **PS 103*** or PY 101 or EC 215 or EC 225 or Foreign Language	Early European Civilization or **Modern European Civilization*** or Cultural Geography MOTR GEOG 101 or **US Political Systems*** 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 **HISTORY 1200*** or HISTORY 2110 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or **Modern Western Civilization*** or World Regional Geography or **American Government*** or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	3
Humanities, Arts, and Social Sciences ENGLISH 3560 required.						
EN 309 or IM 300	Writing for Science and Technology or Technical Communication	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	38
	Group 1 Core Requirements	32			Group 1 Core Requirements	27
	Total Hours	72			Total Hours*	65
					*S&T advisor permission is required to transfer more than 69 credit hours toward the degree.	

Biomedical Engineering-Biomaterials
Group 2 Major Requirements

Southeast Missouri State University			Semester	Missouri S&T		
SC 105	Fundamentals of Oral Communication	3		SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CH 185, 184	General Chemistry I and Lab	4		CHEM 1310, 1319	General Chemistry I and Lab	5
CH 186, 187	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
CH 341, 342	Foundations of Organic Chemistry (4) and Lab (1)	5		CHEM 2210, 2219*	Organic Chemistry I and Lab* *CHEM 2219 Lab applies to the degree as a Track Elective (non-engineering).	4
CH 343, 344	Advanced Organic Chemistry (3) and Lab (2) or	5		CHEM 2220, 2229*	Organic Chemistry II and Lab* CHEM 2229 Lab applies to the degree as a Track Elective (non-engineering).	4
BS 218	Biological Science: A Process Approach MOTR BIOL 100L			BIO SCI 1113*, 1219*	General Biology* and Lab* *Applies to degree as Track Elective (Non-engineering).	4
BS 113	Anatomy and Physiology I	4		BIO SCI 3333, 3359	Human Anatomy and Physiology I and Lab	4
CS 101 or CS 155 or CS 265 or CS 300 or CS 351	Intro to Computer Programming or Computer Science I or Computer Science II or Computer Science III or C and the Posix Environment	3		COMP SCI 1500	Computational Problem Solving	3
EP 261	Engineering Mechanics-Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
EP 240	Circuit Analysis I	3		ELEC ENG 2100*	Circuits I* *A passing grade on the Missouri S&T ELEC ENG 2100 final exam is required to receive credit for ELEC ENG 2100. Without the required passing score, the course will transfer as ELEC ENG 2800. ELEC ENG 2100 applies to the degree as a Track Elective (Engineering).	3
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 12 hours to include 6 hours Humanities and 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, 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.						
LI 260 or LI 261 or LI 270 or LI 271 or LI 211 or **US 105*** or **US 107*** or AR 112 or CM 226 or MU 182 or TH 100 or Literature	English Literature I or English Literature II or American Literature I or American Literature II or World Literature I or **American History I*** or **American History II*** or Perspectives in Art or Residential Architectural Drafting and Design or Music: An Artistic Expression or Theatre 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 ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or **HISTORY 1300*** or **HISTORY 1310*** or ART 1180 or ART 3203 or MUSIC 1150 or THEATRE 1190 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or 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 Architectural Design I or Music Appreciation or Theatre via Video 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.						
EH 101 or **EH 103*** or GG 180 or **PS 103*** or PY 101 or EC 215 or EC 225 or Foreign Language	Early European Civilization or **Modern European Civilization*** or Cultural Geography MOTR GEOG 101 or **US Political Systems*** 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 **HISTORY 1200*** or HISTORY 2110 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or **Modern Western Civilization*** or World Regional Geography or **American Government*** or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	3
Humanities, Arts, and Social Sciences ENGLISH 3560 required.						
EN 309 or IM 300	Writing for Science and Technology or Technical Communication	3		ENGLISH 3560	Technical Writing	3
	No free electives applied to the degree.	0			Maximum Free Electives	0
	Group 2 Major Requirements	46			Group 2 Major Requirements	48
	Group 1 Core Requirements	32			Group 1 Core Requirements	27
	Total Hours	78			Total Hours*	75
					*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

Southeast Missouri State University			Semester	Missouri S&T		
MN 120	Fundamentals of Engineering Design Processes	3		MECH ENG 1720	Intro to Engineering Design	3
EN 140 or SC 105 or EN 309 or IM 300	Rhetoric and Critical Thinking or Fundamentals of Oral Communication or Writing for Science and Technology or Technical Communication	3		ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
EP 261	Engineering Mechanics-Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
EP 263	Mechanics of Materials	4		CIV ENG 2210, 2211*	Mechanics of Materials* (3) and Materials Testing* (1) *CIV ENG 2211 is not a degree requirement. Transfers as general elective credit.	3
CH 185, 184	General Chemistry I and Lab	4		CHEM 1310, 1319	General Chemistry I and Lab	5
CH 186, 187	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
CS 101 or CS 155 or CS 265 or CS 300 or CS 351	Intro to Computer Programming or Computer Science I or Computer Science II or Computer Science III or C and the Posix Environment	3		COMP SCI 1500	Computational Problem Solving	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.						
LI 260 or LI 261 or LI 270 or LI 271 or LI 211 or **US 105*** or **US 107*** or AR 112 or CM 226 or MU 182 or TH 100 or Literature	English Literature I or English Literature II or American Literature I or American Literature II or World Literature I or **American History I*** or **American History II*** or Perspectives in Art or Residential Architectural Drafting and Design or Music: An Artistic Expression or Theatre 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 ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or **HISTORY 1300*** or **HISTORY 1310*** or ART 1180 or ART 3203 or MUSIC 1150 or THEATRE 1190 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or 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 Architectural Design I or Music Appreciation or Theatre via Video 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.						
EH 101 or **EH 103*** or GG 180 or PL 110 or PL 120 or **PS 103*** or PY 101 or EC 215 or EC 225 or Foreign Language	Early European Civilization or **Modern European Civilization*** or Cultural Geography MOTR GEOG 101 or Readings in Philosophy or Symbolic Logic I or **US Political Systems*** 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 **HISTORY 1200*** or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or **Modern Western Civilization*** or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or **American Government***or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6
Humanities, 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	39			Group 2 Major Requirements	38
	Group 1 Core Requirements	32			Group 1 Core Requirements	27
	Total Hours	71			Total Hours*	65
					*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

Southeast Missouri State University			Semester	Missouri S&T		
MN 120	Fundamentals of Engineering Design Processes	3		MECH ENG 1720	Intro to Engineering Design	3
SC 105	Fundamentals of Oral Communication	3		SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CH 185, 184	General Chemistry I and Lab	4		CHEM 1310, 1319	General Chemistry I and Lab	5
CH 186, 187	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
CH 341, 342	Fundamentals of Organic Chemistry and Lab	5		CHEM 2210, 2219*	Organic Chemistry I and Lab* *CHEM 2210 is a degree requirement. CHEM 2219 applies to the degree as 1 of 9 required science elective credits See note below .	4
CH 343 or BI 200	Advanced Organic Chemistry (3) or General Microbiology (3) Select up to 6 credits.	6		CHEM 2220 or BIO SCI 3313	Organic Chemistry II (3) or Microbiology and Lab (3) Select up to 6 credits. Will apply to the degree as 6 of 9 required science elective credits.	8
CS 101 or CS 155 or CS 265 or CS 300 or CS 351	Intro to Computer Programming or Computer Science I or Computer Science II or Computer Science III or C and the Posix Environment	3		COMP SCI 1500	Computational Problem Solving	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.						
LI 260 or LI 261 or LI 270 or LI 271 or LI 211 or **US 105*** or **US 107*** or AR 112 or CM 226 or MU 182 or TH 100 or Literature	English Literature I or English Literature II or American Literature I or American Literature II or World Literature I or **American History I*** or **American History II*** or Perspectives in Art or Residential Architectural Drafting and Design or Music: An Artistic Expression or Theatre 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 ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or **HISTORY 1300*** or **HISTORY 1310*** or ART 1180 or ART 3203 or MUSIC 1150 or THEATRE 1190 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or 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 Architectural Design I or Music Appreciation or Theatre via Video 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.						
EH 101 or **EH 103*** or GG 180 or PL 110 or PL 120 or **PS 103*** or PY 101 or EC 215 or EC 225 or Foreign Language	Early European Civilization or **Modern European Civilization*** or Cultural Geography MOTR GEOG 101 or Readings in Philosophy or Symbolic Logic I or **US Political Systems*** 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 **HISTORY 1200*** or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or **Modern Western Civilization*** or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or **American Government***or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6
Humanities, Arts, and Social Sciences ENGLISH 3560 required.						
EN 309 or IM 300	Writing for Science and Technology or Technical Communication	3		ENGLISH 3560	Technical Writing	3
	No free electives applied to the degree.	0			Maximum Free Electives	0
	Group 2 Major Requirements	43			Group 2 Major Requirements	44
	Group 1 Core Requirements	32			Group 1 Core Requirements	27
	Total Hours	75			Total Hours*	71

*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

Southeast Missouri State University			Semester	Missouri S&T		
MN 120	Fundamentals of Engineering Design Processes	3		MECH ENG 1720	Intro to Engineering Design	3
EN 140 or SC 105 or EN 309 or IM 300	Rhetoric and Critical Thinking or Fundamentals of Oral Communication or Writing for Science and Technology or Technical Communication	3		ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CH 185, 184	General Chemistry I and Lab	4		CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
GO 110	Physical Geology	3		GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
EP 261	Engineering Mechanics-Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
EP 262	Engineering Mechanics-Dynamics	3		MECH ENG 2350	Engineering Mechanics-Dynamics	2
EP 263	Mechanics of Materials	4		CIV ENG 2210, 2211	Mechanics of Materials and Materials Testing	4
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.						
LI 260 or LI 261 or LI 270 or LI 271 or LI 211 or **US 105*** or **US 107*** or AR 112 or CM 226 or MU 182 or TH 100 or Literature	English Literature I or English Literature II or American Literature I or American Literature II or World Literature I or **American History I*** or **American History II*** or Perspectives in Art or Residential Architectural Drafting and Design or Music: An Artistic Expression or Theatre 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 ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or **HISTORY 1300*** or **HISTORY 1310*** or ART 1180 or ART 3203 or MUSIC 1150 or THEATRE 1190 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or 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 Architectural Design I or Music Appreciation or Theatre via Video 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.						
EH 101 or **EH 103*** or GG 180 or PL 110 or PL 120 or **PS 103*** or PY 101 or EC 215 or EC 225 or Foreign Language	Early European Civilization or **Modern European Civilization*** or Cultural Geography MOTR GEOG 101 or Readings in Philosophy or Symbolic Logic I or **US Political Systems*** 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 **HISTORY 1200*** or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or **Modern Western Civilization*** or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or **American Government***or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6
Humanities, 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	38			Group 2 Major Requirements	38
	Group 1 Core Requirements	32			Group 1 Core Requirements	27
	Total Hours	70			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

Southeast Missouri State University			Semester	Missouri S&T		
SC 105	Fundamentals of Oral Communication	3		SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CH 185, 184	General Chemistry I and Lab	4		CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
CS 101 or CS 155 or CS 265 or CS 300 or CS 351	Intro to Computer Programming or Computer Science I or Computer Science II or Computer Science III or C and the Posix Environment	3		COMP SCI 1500	Computational Problem Solving	3
EP 261 and EP 262 BOTH of the courses above or ONE of the courses below. OR CH 341 or BI 283	Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (3) Both courses above combined or any one of the following courses will satisfy a required engineering science elective. OR Fundamentals of Organic Chemistry (4) or Genetics (4)	4		CIV ENG 2200 and MECH ENG 2350 BOTH of the courses above or ONE of the courses below. OR CHEM 2210 or BIO SCI 2223	Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (3) Both courses above combined or any one of the following courses will satisfy a required engineering science elective. OR Organic Chemistry I (4) or General Genetics (3)	3
EP 240	Circuit Analysis I	3		ELEC ENG 2100*	Circuits I* *A passing grade on the Missouri S&T ELEC ENG 2100 final exam is required to receive credit for ELEC ENG 2100. Without the required passing score, the course will transfer as ELEC ENG 2800..	3
MA 345	Linear Algebra	3		MATH 3108	Linear Algebra Satisfies a required math 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.						
LI 260 or LI 261 or LI 270 or LI 271 or LI 211 or **US 105*** or **US 107*** or AR 112 or CM 226 or MU 182 or TH 100 or Literature	English Literature I or English Literature II or American Literature I or American Literature II or World Literature I or **American History I*** or **American History II*** or Perspectives in Art or Residential Architectural Drafting and Design or Music: An Artistic Expression or Theatre 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 ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or **HISTORY 1300*** or **HISTORY 1310*** or ART 1180 or ART 3203 or MUSIC 1150 or THEATRE 1190 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or 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 Architectural Design I or Music Appreciation or Theatre via Video 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.						
EH 101 or **EH 103*** or GG 180 or PL 110 or PL 120 or **PS 103*** or PY 101 or EC 215 or EC 225 or Foreign Language	Early European Civilization or **Modern European Civilization*** or Cultural Geography MOTR GEOG 101 or Readings in Philosophy or Symbolic Logic I or **US Political Systems*** 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 **HISTORY 1200*** or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or **Modern Western Civilization*** or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or **American Government*** or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6
Humanities, Arts, and Social Sciences Select 3 hours.						
EN 140 or EN 309 or IM 300	Rhetoric and Critical Thinking or Writing for Science and Technology or Technical Communication	3		ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
Electives	Maximum Free Electives	3		Electives	Maximum Free Electives	3
	Group 2 Major Requirements	38			Group 2 Major Requirements	38
	Group 1 Core Requirements	32			Group 1 Core Requirements	27
	Total Hours	70			Total Hours*	65
					*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

Southeast Missouri State University		Semester	Missouri S&T		Semester
MN 120	Fundamentals of Engineering Design Processes	3	MECH ENG 1720	Intro to Engineering Design	3
SC 105	Fundamentals of Oral Communication	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CH 185, 184	General Chemistry I and Lab	4	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
CS 101 or CS 155 or CS 265 or CS 300 or CS 351	Intro to Computer Programming or Computer Science I or Computer Science II or Computer Science III or C and the Posix Environment	3	COMP SCI 1500	Computational Problem Solving	3
EP 261 and EP 262 BOTH of the courses above or ONE of the courses below. OR CH 341 or BI 283	Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (3) Both courses above combined or any one of the following courses will satisfy a required engineering science elective. OR Fundamentals of Organic Chemistry (4) or Genetics (4)	4	CIV ENG 2200 and MECH ENG 2350 BOTH of the courses above or ONE of the courses below. OR CHEM 2210 or BIO SCI 2223	Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (3) Both courses above combined or any one of the following courses will satisfy a required engineering science elective. OR Organic Chemistry I (4) or General Genetics (3)	3
EP 240	Circuit Analysis I	3	ELEC ENG 2100*	Circuits I* *A passing grade on the Missouri S&T ELEC ENG 2100 final exam is required to receive credit for ELEC ENG 2100. Without the required passing score, the course will transfer as ELEC ENG 2800..	3
MA 345	Linear Algebra	3	MATH 3108	Linear Algebra	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.					
LI 260 or LI 261 or LI 270 or LI 271 or LI 211 or **US 105*** or **US 107*** or AR 112 or CM 226 or MU 182 or TH 100 or Literature	English Literature I or English Literature II or American Literature I or American Literature II or World Literature I or **American History I*** or **American History II*** or Perspectives in Art or Residential Architectural Drafting and Design or Music: An Artistic Expression or Theatre 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 ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or **HISTORY 1300*** or **HISTORY 1310*** or ART 1180 or ART 3203 or MUSIC 1150 or THEATRE 1190 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or 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 Architectural Design I or Music Appreciation or Theatre via Video 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.					
EH 101 or **EH 103*** or GG 180 or PL 110 or PL 120 or **PS 103*** or PY 101 or EC 215 or EC 225 or Foreign Language	Early European Civilization or **Modern European Civilization*** or Cultural Geography MOTR GEOG 101 or Readings in Philosophy or Symbolic Logic I or **US Political Systems*** 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 **HISTORY 1200*** or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or **Modern Western Civilization*** or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or **American Government***or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6
Humanities, Arts, and Social Sciences Select 3 hours.					
EN 140 or EN 309 or IM 300	Rhetoric and Critical Thinking or Writing for Science and Technology or Technical Communication	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
Electives	Maximum Free Electives	6	Electives	Maximum Free Electives	6
	Group 2 Major Requirements	44		Group 2 Major Requirements	44
	Group 1 Core Requirements	32		Group 1 Core Requirements	27
	Total Hours	76		Total Hours*	71
				*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

Southeast Missouri State University			Semester	Missouri S&T		
MN 120	Fundamentals of Engineering Design Processes	3		MECH ENG 1720	Intro to Engineering Design	3
SC 105	Fundamentals of Oral Communication	3		SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CH 185, 184	General Chemistry I and Lab	4		CHEM 1310, 1319	General Chemistry I and Lab	5
EP 240	Circuit Analysis I	3		ELEC ENG 2800	Electrical Circuits	3
EP 261	Engineering Mechanics-Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
EP 262	Engineering Mechanics-Dynamics	3		MECH ENG 2350	Engineering Mechanics-Dynamics	2
EP 263	Mechanics of Materials	4		CIV ENG 2210, 2211*	Mechanics of Materials* (3) and Materials Testing* (1) *CIV ENG 2211 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 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.						
LI 260 or LI 261 or LI 270 or LI 271 or LI 211 or **US 105*** or **US 107*** or AR 112 or CM 226 or MU 182 or TH 100 or Literature	English Literature I or English Literature II or American Literature I or American Literature II or World Literature I or **American History I*** or **American History II*** or Perspectives in Art or Residential Architectural Drafting and Design or Music: An Artistic Expression or Theatre 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 ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or **HISTORY 1300*** or **HISTORY 1310*** or ART 1180 or ART 3203 or MUSIC 1150 or THEATRE 1190 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or 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 Architectural Design I or Music Appreciation or Theatre via Video 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.						
PY 101	Intro to Psychology	3		PSYCH 1101	General Psychology Required	3
EH 101 or **EH 103*** or GG 180 or PL 110 or PL 120 or **PS 103*** or EC 215 or EC 225 or Foreign Language	Early European Civilization or **Modern European Civilization*** or Cultural Geography MOTR GEOG 101 or Readings in Philosophy or Symbolic Logic I or **US Political Systems*** or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	3		HISTORY 1100 or **HISTORY 1200*** or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or **Modern Western Civilization*** or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or **American Government***or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	3
Humanities, Arts, and Social Sciences Select 3 hours.						
EN 140 or EN 309 or IM 300	Rhetoric and Critical Thinking or Writing for Science and Technology or Technical Communication	3		ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
	No free electives applied to the degree.	0		Electives	Maximum Free Electives	0
	Group 2 Major Requirements	38			Group 2 Major Requirements	37
	Group 1 Core Requirements	32			Group 1 Core Requirements	27
	Total Hours	70			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

Southeast Missouri State University			Semester	Missouri S&T		
MN 120	Fundamentals of Engineering Design Processes	3		MECH ENG 1720	Intro to Engineering Design	3
EN 140 or SC 105 or EN 309 or IM 300	Rhetoric and Critical Thinking or Fundamentals of Oral Communication or Writing for Science and Technology or Technical Communication	3		ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
GO 110	Physical Geology	3		GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
CH 185, 184	General Chemistry I and Lab	4		CHEM 1310, 1319	General Chemistry I and Lab	5
CH 186, 187	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
BS 108 or BS 151 or BS 218	Biology for Living MOTR BIOL 100 or Biological Reasoning MOTR BIOL 100 or Biological Science: A Process Approach MOTR BIOL 100L	3		BIO SCI 1113 or BIO SCI 1113 or BIO SCI 1113, 1219*	General Biology (3) MOTR BIOL 100 or General Biology (3) MOTR BIOL 100 or General Biology (3) and Lab* (1) MOTR BIOL 100L *The lab is not a degree requirement, transfers as general elective credit.	3
EP 261	Engineering Mechanics-Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
EP 262	Engineering Mechanics-Dynamics	3		MECH ENG 2350	Engineering Mechanics-Dynamics	2
EP 263	Mechanics of Materials	4		CIV ENG 2210, 2211	Mechanics of Materials and Materials Testing	4
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, 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.						
LI 260 or LI 261 or LI 270 or LI 271 or LI 211 or **US 105*** or **US 107*** or AR 112 or CM 226 or MU 182 or TH 100 or Literature	English Literature I or English Literature II or American Literature I or American Literature II or World Literature I or **American History I*** or **American History II*** or Perspectives in Art or Residential Architectural Drafting and Design or Music: An Artistic Expression or Theatre 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 ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or **HISTORY 1300*** or **HISTORY 1310*** or ART 1180 or ART 3203 or MUSIC 1150 or THEATRE 1190 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or 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 Architectural Design I or Music Appreciation or Theatre via Video 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.. At least one course in either the HFA (above) or the BSS section must be selected from HISTORY 1200, 1300, or 1310.						
EH 103* or PL 110 or PL 120 or PY 101 or EC 215 or EC 225 or Foreign Language	**Modern European Civilization*** or Readings in Philosophy or Symbolic Logic I 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 1200*** or PHILOS 1105 or PHILOS 1115 or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	**Modern Western Civilization*** or 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.**	6
	No free electives applied to the degree.	0			Maximum Free Electives	0
	Group 2 Major Requirements	42			Group 2 Major Requirements	41
	Group 1 Core Requirements	32			Group 1 Core Requirements	27
	Total Hours	74			Total Hours*	68
					*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

Southeast Missouri State University		Semester	Missouri S&T		
MN 120	Fundamentals of Engineering Design Processes	3	MECH ENG 1720	Intro to Engineering Design	3
EN 309 or IM 300	Writing for Science and Technology or Technical Communication	3	ENGLISH 3560	Technical Writing Applies to degree as Gen Ed Communication requirement.	3
CH 185, 184	General Chemistry I and Lab	4	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
GO 110	Physical Geology	3	GEO ENG 1150 (GEOLOGY 1110)	Physical and Environmental Geology	3
EP 261	Engineering Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EP 262	Engineering Mechanics-Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
EP 263	Mechanics of Materials	4	CIV ENG 2210, 2211*	Mechanics of Materials* (3) and Materials Testing* (1) *CIV ENG 2211 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 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.					
LI 260 or LI 261 or LI 270 or LI 271 or LI 211 or **US 105*** or **US 107*** or AR 112 or CM 226 or MU 182 or TH 100 or Literature	English Literature I or English Literature II or American Literature I or American Literature II or World Literature I or **American History I*** or **American History II*** or Perspectives in Art or Residential Architectural Drafting and Design or Music: An Artistic Expression or Theatre 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 ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or **HISTORY 1300*** or **HISTORY 1310*** or ART 1180 or ART 3203 or MUSIC 1150 or THEATRE 1190 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or 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 Architectural Design I or Music Appreciation or Theatre via Video 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.					
EH 101 or **EH 103*** or GG 180 or PL 110 or PL 120 or **PS 103*** or PY 101 or EC 215 or EC 225 or Foreign Language	Early European Civilization or **Modern European Civilization*** or Cultural Geography MOTR GEOG 101 or Readings in Philosophy or Symbolic Logic I or **US Political Systems*** 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 **HISTORY 1200*** or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or **Modern Western Civilization*** or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or **American Government*** or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6
Humanities, 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	38		Group 2 Major Requirements	37
	Group 1 Core Requirements	32		Group 1 Core Requirements	27
	Total Hours	70		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

Southeast Missouri State University		Semester	Missouri S&T		
MN 120	Fundamentals of Engineering Design Processes	3	MECH ENG 1720	Intro to Engineering Design	3
EN 140 or SC 105 or EN 309 or IM 300	Rhetoric and Critical Thinking or Fundamentals of Oral Communication or Writing for Science and Technology or Technical Communication	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CH 185, 184	General Chemistry I and Lab	4	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
EP 240	Circuit Analysis I	3	ELEC ENG 2800	Electrical Circuits	3
EP 261	Engineering Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EP 263	Mechanics of Materials	4	CIV ENG 2210, 2211	Mechanics of Materials and Materials Testing	4
MA 345	Linear Algebra	3	MATH 3108	Linear Algebra I Satisfies the Advanced Math/Statistics 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.					
LI 260 or LI 261 or LI 270 or LI 271 or LI 211 or **US 105*** or **US 107*** or AR 112 or CM 226 or MU 182 or TH 100 or Literature	English Literature I or English Literature II or American Literature I or American Literature II or World Literature I or **American History I*** or **American History II*** or Perspectives in Art or Residential Architectural Drafting and Design or Music: An Artistic Expression or Theatre 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 ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or **HISTORY 1300*** or **HISTORY 1310*** or ART 1180 or ART 3203 or MUSIC 1150 or THEATRE 1190 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or 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 Architectural Design I or Music Appreciation or Theatre via Video 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.					
EH 101 or **EH 103*** or GG 180 or PL 110 or PL 120 or **PS 103*** or PY 101 or EC 215 or EC 225 or Foreign Language	Early European Civilization or **Modern European Civilization*** or Cultural Geography MOTR GEOG 101 or Readings in Philosophy or Symbolic Logic I or **US Political Systems*** 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 **HISTORY 1200*** or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or **Modern Western Civilization*** or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or **American Government***or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6
Humanities, 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	38		Group 2 Major Requirements	39
	Group 1 Core Requirements	32		Group 1 Core Requirements	27
	Total Hours	70		Total Hours*	66
				*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

Southeast Missouri State University			Semester	Missouri S&T		
MN 120	Fundamentals of Engineering Design Processes	3		MECH ENG 1720	Intro to Engineering Design	3
EN 140 or SC 105 or EN 309 or IM 300	Rhetoric and Critical Thinking or Fundamentals of Oral Communication or Writing for Science and Technology or Technical Communication	3		ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CS 101 or CS 155 or CS 265 or CS 300 or CS 351	Intro to Computer Programming or Computer Science I or Computer Science II or Computer Science III or C and the Posix Environment	3		COMP SCI 1500	Computational Problem Solving	3
EP 261	Engineering Mechanics-Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
EP 263	Mechanics of Materials	4		CIV ENG 2210, 2211*	Mechanics of Materials* (3) and Materials Testing* (1) *CIV ENG 2211 is not a degree requirement. Transfers as general elective credit.	3
CH 185, 184	General Chemistry I and Lab	4		CHEM 1310, 1319	General Chemistry I and Lab	5
CH 186, 187	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
CH 341 or EP 240 or	Foundations of Organic Chemistry (4) or Circuit Analysis I (3) or	3		CHEM 2210 or ELEC ENG 2800	Organic Chemistry I (3) or Electrical Circuits (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.						
LI 260 or LI 261 or LI 270 or LI 271 or LI 211 or **US 105*** or **US 107*** or AR 112 or CM 226 or MU 182 or TH 100 or Literature	English Literature I or English Literature II or American Literature I or American Literature II or World Literature I or **American History I*** or **American History II*** or Perspectives in Art or Residential Architectural Drafting and Design or Music: An Artistic Expression or Theatre 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 ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or **HISTORY 1300*** or **HISTORY 1310*** or ART 1180 or ART 3203 or MUSIC 1150 or THEATRE 1190 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or 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 Architectural Design I or Music Appreciation or Theatre via Video 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.						
EH 101 or **EH 103*** or GG 180 or PL 110 or PL 120 or **PS 103*** or PY 101 or EC 215 or EC 225 or Foreign Language	Early European Civilization or **Modern European Civilization*** or Cultural Geography MOTR GEOG 101 or Readings in Philosophy or Symbolic Logic I or **US Political Systems*** 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 **HISTORY 1200*** or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or **Modern Western Civilization*** or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or **American Government***or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6
Humanities, 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	45			Group 2 Major Requirements	41
	Group 1 Core Requirements	32			Group 1 Core Requirements	27
	Total Hours	77			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

Southeast Missouri State University			Semester	Missouri S&T		
MN 120	Fundamentals of Engineering Design Processes	3		MECH ENG 1720	Intro to Engineering Design	3
EN 140 or SC 105 or EN 309 or IM 300	Rhetoric and Critical Thinking or Fundamentals of Oral Communication or Writing for Science and Technology or Technical Communication	3		ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CH 185, 184	General Chemistry I and Lab	4		CHEM 1310, 1319	General Chemistry I and Lab	5
EP 261	Engineering Mechanics-Statics	3		CIV ENG 2200	Engineering Mechanics-Statics	3
EP 262	Engineering Mechanics-Dynamics	3		MECH ENG 2350	Engineering Mechanics-Dynamics	2
EP 263	Mechanics of Materials	4		CIV ENG 2210, 2211*	Mechanics of Materials* (3) and Materials Testing* (1) *CIV ENG 2211 is not a degree requirement. Transfers as general elective credit.	3
GO 110	Physical Geology	3		GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 12 hours to include 6 hours Humanities and 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.						
LI 260 or LI 261 or LI 270 or LI 271 or LI 211 or **US 105*** or **US 107*** or AR 112 or CM 226 or MU 182 or TH 100 or Literature	English Literature I or English Literature II or American Literature I or American Literature II or World Literature I or **American History I*** or **American History II*** or Perspectives in Art or Residential Architectural Drafting and Design or Music: An Artistic Expression or Theatre 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 ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or **HISTORY 1300*** or **HISTORY 1310*** or ART 1180 or ART 3203 or MUSIC 1150 or THEATRE 1190 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or 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 Architectural Design I or Music Appreciation or Theatre via Video 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.						
EH 101 or **EH 103*** or GG 180 or PL 110 or PL 120 or **PS 103*** or PY 101 or EC 215 or EC 225 or Foreign Language	Early European Civilization or **Modern European Civilization*** or Cultural Geography MOTR GEOG 101 or Readings in Philosophy or Symbolic Logic I or **US Political Systems*** 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 **HISTORY 1200*** or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or **Modern Western Civilization*** or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or **American Government***or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6
	No free electives applied to the degree.	0			Maximum Free Electives	0
	Group 2 Major Requirements	35			Group 2 Major Requirements	34
	Group 1 Core Requirements	32			Group 1 Core Requirements	27
	Total Hours	67			Total Hours*	61
					*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

Southeast Missouri State University		Semester	Missouri S&T		
MN 120	Fundamentals of Engineering Design Processes	3	MECH ENG 1720	Intro to Engineering Design	3
EN 140 or SC 105 or EN 309 or IM 300	Rhetoric and Critical Thinking or Fundamentals of Oral Communication or Writing for Science and Technology or Technical Communication	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CH 185, 184	General Chemistry I and Lab	4	CHEM 1310, 1319	General Chemistry I and Lab	5
MA 345	Linear Algebra	3	MATH 3108	Linear Algebra I	3
EP 261	Engineering Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EP 263	Mechanics of Materials	4	CIV ENG 2210, 2211*	Mechanics of Materials* (3) and Materials Testing* (1) *CIV ENG 2211 is not a degree requirement. Transfers as general elective credit.	3
EP 240	Circuit Analysis I	3	ELEC ENG 2800	Electrical Circuits	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.					
LI 260 or LI 261 or LI 270 or LI 271 or LI 211 or **US 105*** or **US 107*** or AR 112 or CM 226 or MU 182 or TH 100 or Literature	English Literature I or English Literature II or American Literature I or American Literature II or World Literature I or **American History I*** or **American History II*** or Perspectives in Art or Residential Architectural Drafting and Design or Music: An Artistic Expression or Theatre 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 ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or **HISTORY 1300*** or **HISTORY 1310*** or ART 1180 or ART 3203 or MUSIC 1150 or THEATRE 1190 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or 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 Architectural Design I or Music Appreciation or Theatre via Video 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.					
EC 215 or EC 225	Principles of Microeconomics or Principles of Macroeconomics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3
EH 101 or **EH 103*** or GG 180 or PL 110 or PL 120 or **PS 103*** or PY 101 or Foreign Language	Early European Civilization or **Modern European Civilization*** or Cultural Geography MOTR GEOG 101 or Readings in Philosophy or Symbolic Logic I or **US Political Systems*** or Intro to Psychology or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	3	HISTORY 1100 or **HISTORY 1200*** or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or Foreign Language	Early Western Civilization or **Modern Western Civilization*** or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or **American Government***or General Psychology or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	3
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	38		Group 2 Major Requirements	38
	Group 1 Core Requirements	32		Group 1 Core Requirements	27
	Total Hours	70		Total Hours*	65
				*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

Southeast Missouri State University			Semester	Missouri S&T	
EN 140 or SC 105 or EN 309 or IM 300	Rhetoric and Critical Thinking or Fundamentals of Oral Communication or Writing for Science and Technology or Technical Communication	3	ENGLISH 3560 or ENGLISH 1160 or ENGLISH 1600	Technical Writing (preferred) or Writing and Research or Intro to Technical Communications Applies to degree as Gen Ed Communications requirement.	3
CH 185, 184	General Chemistry I and Lab	4	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
CS 101 or CS 155 or CS 265 or CS 300 or CS 351	Intro to Computer Programming or Computer Science I or Computer Science II or Computer Science III or C and the Posix Environment	3	COMP SCI 1500	Computational Problem Solving	3
GO 110	Physical Geology	3	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
EP 261	Engineering Mechanics-Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EP 262	Engineering Mechanics-Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
EP 263	Mechanics of Materials	4	CIV ENG 2210, 2211*	Mechanics of Materials* (3) and Materials Testing* (1) *CIV ENG 2211 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 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.					
LI 260 or LI 261 or LI 270 or LI 271 or LI 211 or **US 105*** or **US 107*** or AR 112 or CM 226 or MU 182 or TH 100 or Literature	English Literature I or English Literature II or American Literature I or American Literature II or World Literature I or **American History I*** or **American History II*** or Perspectives in Art or Residential Architectural Drafting and Design or Music: An Artistic Expression or Theatre 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 ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or **HISTORY 1300*** or **HISTORY 1310*** or ART 1180 or ART 3203 or MUSIC 1150 or THEATRE 1190 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or 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 Architectural Design I or Music Appreciation or Theatre via Video 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.					
EH 101 or **EH 103*** or GG 180 or PL 110 or PL 120 or **PS 103*** or PY 101 or EC 215 or EC 225 or Foreign Language	Early European Civilization or **Modern European Civilization*** or Cultural Geography MOTR GEOG 101 or Readings in Philosophy or Symbolic Logic I or **US Political Systems*** 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 **HISTORY 1200*** or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or **Modern Western Civilization*** or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or **American Government***or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6
Humanities, 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	38		Group 2 Major Requirements	37
	Group 1 Core Requirements	32		Group 1 Core Requirements	27
	Total Hours	70		Total Hours*	64
				*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

Southeast Missouri State University			Semester	Missouri S&T		
MN 120	Fundamentals of Engineering Design Processes	3		MECH ENG 1720	Intro to Engineering Design	3
EN 140 or SC 105 or EN 309 or IM 300	Rhetoric and Critical Thinking or Fundamentals of Oral Communication or Writing for Science and Technology or Technical Communication	3		ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CH 185, 184	General Chemistry I and Lab	4		CHEM 1310, 1319	General Chemistry I and Lab	5
CH 186, 187	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
EP 240	Circuit Analysis I	3		ELEC ENG 2100*	Circuits I* *A passing grade on the Missouri S&T ELEC ENG 2100 final exam is required to receive credit for ELEC ENG 2100. Without the required passing score, the course will transfer as ELEC ENG 2800..	3
CS 101 or CS 155 or CS 265 or CS 300 or CS 351	Intro to Computer Programming or Computer Science I or Computer Science II or Computer Science III or C and the Posix Environment	3		COMP SCI 1500	Computational Problem Solving	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.						
LI 260 or LI 261 or LI 270 or LI 271 or LI 211 or **US 105*** or **US 107*** or AR 112 or CM 226 or MU 182 or TH 100 or Literature	English Literature I or English Literature II or American Literature I or American Literature II or World Literature I or **American History I*** or **American History II*** or Perspectives in Art or Residential Architectural Drafting and Design or Music: An Artistic Expression or Theatre 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 ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or **HISTORY 1300*** or **HISTORY 1310*** or ART 1180 or ART 3203 or MUSIC 1150 or THEATRE 1190 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or 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 Architectural Design I or Music Appreciation or Theatre via Video 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.						
EH 101 or **EH 103*** or GG 180 or PL 110 or PL 120 or **PS 103*** or PY 101 or EC 215 or EC 225 or Foreign Language	Early European Civilization or **Modern European Civilization*** or Cultural Geography MOTR GEOG 101 or Readings in Philosophy or Symbolic Logic I or **US Political Systems*** 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 **HISTORY 1200*** or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or **Modern Western Civilization*** or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or **American Government*** or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6
Humanities, 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	38			Group 2 Major Requirements	38
	Group 1 Core Requirements	32			Group 1 Core Requirements	27
	Total Hours	70			Total Hours*	65
					*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

Southeast Missouri State University			Semester	Missouri S&T		
MN 120	Fundamentals of Engineering Design Processes	3		MECH ENG 1720	Intro to Engineering Design	3
EN 140 or SC 105 or EN 309 or IM 300	Rhetoric and Critical Thinking or Fundamentals of Oral Communication or Writing for Science and Technology or Technical Communication	3		ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CH 185, 184	General Chemistry I and Lab	4		CHEM 1310, 1319	General Chemistry I and Lab	5
CH 186, 187	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
EP 240	Circuit Analysis I	3		ELEC ENG 2100*	Circuits I* *A passing grade on the Missouri S&T ELEC ENG 2100 final exam is required to receive credit for ELEC ENG 2100. Without the required passing score, the course will transfer as ELEC ENG 2800..	3
CS 101 or CS 155 or CS 265 or CS 300 or CS 351	Intro to Computer Programming or Computer Science I or Computer Science II or Computer Science III or C and the Posix Environment	3		COMP SCI 1500	Computational Problem Solving	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.						
LI 260 or LI 261 or LI 270 or LI 271 or LI 211 or **US 105*** or **US 107*** or AR 112 or CM 226 or MU 182 or TH 100 or Literature	English Literature I or English Literature II or American Literature I or American Literature II or World Literature I or **American History I*** or **American History II*** or Perspectives in Art or Residential Architectural Drafting and Design or Music: An Artistic Expression or Theatre 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 ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or **HISTORY 1300*** or **HISTORY 1310*** or ART 1180 or ART 3203 or MUSIC 1150 or THEATRE 1190 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present or 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 Architectural Design I or Music Appreciation or Theatre via Video 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.						
EH 101 or **EH 103*** or GG 180 or PL 110 or PL 120 or **PS 103*** or PY 101 or EC 215 or EC 225 or Foreign Language	Early European Civilization or **Modern European Civilization*** or Cultural Geography MOTR GEOG 101 or Readings in Philosophy or Symbolic Logic I or **US Political Systems*** 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 **HISTORY 1200*** or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or **POL SCI 1200*** or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or **Modern Western Civilization*** or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or **American Government***or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language ***Satisfies the State of Missouri government requirement.**	6
Humanities, 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	38			Group 2 Major Requirements	38
	Group 1 Core Requirements	32			Group 1 Core Requirements	27
	Total Hours	70			Total Hours*	65
					*S&T advisor permission is required to transfer more than 68 credits toward the S&T Ceramic Engineering degree.	