

Moberly Area Community College — 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.

Moberly Area Community College			Semester	Missouri S&T		
MTH 201	Analytic Geometry and Calculus I	5		MATH 1214	Calculus I	Grade of C or better is required. 4
MTH 202	Analytic Geometry and Calculus II	5		MATH 1215	Calculus II	Grade of C or better is required. 4
MTH 203	Analytic Geometry and Calculus III	5		MATH 2222	Calculus III	Grade of C or better is required. 4
MTH 250	Differential Equations	3		MATH 3304	Elementary Differential Equations	3
PHY 201	Engineering Physics I	5		PHYSICS 1135	Engineering Physics I	Grade of C or better is required. 4
PHY 202	Engineering Physics II	5		PHYSICS 2135	Engineering Physics II	Grade of C or better is required. 4
EGN 101	Intro to Engineering	1		FR ENG 1100	Study and Careers in Engineering and Computing	1
LAL 101	Composition I	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

Moberly Area Community College			Semester	Missouri S&T		
LAL 102 or SPK 101	Composition II or Public Speaking I	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
PHY 121	General Chemistry I	5	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5	
EGN 201	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
PHI 152	Intro to Ethics or other engineering, business, bio, social ethics approved by advisor	3	PHILOS 1130	How Should I Live? An Introduction to Ethics or other engineering, business, bio, social ethics approved by advisor	3	
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. *At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.						
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.						
LAL 150 or LAL 151 or LAL 120 or LAL 121 or LAL 210 or HST 105* or HST 106* or ART 101 or ART 102 or MUS 101 or MUS 102 or DRM 120 or Literature	English Literature Survey to 1750 or English Literature Survey from 1750 to Present or American Literature Survey to 1870 or American Literature Survey from 1870 to Present or A Survey of World Literature I or American History to 1865* or American History from 1865* or Art Survey and Appreciation I or Art Survey and Appreciation II or Fundamentals of Music or Music Appreciation 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 1180 or MUSIC 1150 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 Art Appreciation or Art Appreciation or Music Appreciation 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.						
HST 101 or HST 102* or GEO 101 or PHI 150 or PHI 151 or PSC 105* or PSY 101 or ECN 102 or ECN 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography I or Intro to Philosophy or Intro to Logic or Intro to American Government* or General Psychology or Microeconomics or 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	
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives		0	
Group 2 Major Requirements		29	Group 2 Major Requirements		29	
Group 1 Core Requirements		32	Group 1 Core Requirements		27	
Total Hours		61	Total Hours*		56	
*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

Moberly Area Community College		Semester	Missouri S&T			
LAL 102 or SPK 101	Composition II or Public Speaking I	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
PHY 121	General Chemistry I	5	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5	
EGN 201	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
PHY 163	Geology MOTR GEOL 100L	3	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology MOTR GEOL 100L	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 3 hours.						
LAL 150 or LAL 151 or LAL 120 or LAL 121 or LAL 210 or HST 105* or HST 106* or MUS 101 or MUS 102 or DRM 120 or Literature	English Literature Survey to 1750 or English Literature Survey from 1750 to Present or American Literature Survey to 1870 or American Literature Survey from 1870 to Present or A Survey of World Literature I or American History to 1865* or American History from 1865* or Fundamentals of Music or Music Appreciation 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.						
HST 102*	Western Civilization II* *Satisfies the State of Missouri Government requirement.	3	HISTORY 1200*	Modern Western Civilization* *Satisfies the State of Missouri Government requirement.	3	
PHI 150 or PHI 151 or PSC 105* or PSY 101 or ECN 102 or ECN 101 or Foreign Language	nitro to Philosophy or Intro to Logic or Intro to American Government* or General Psychology or Microeconomics or 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		26	Group 2 Major Requirements		26	
Group 1 Core Requirements		32	Group 1 Core Requirements		27	
Total Hours		58			Total Hours*	53
*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

Moberly Area Community College			Semester	Missouri S&T	
SPK 101	Public Speaking	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
PHY 121	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5
PHY 122	General Chemistry II	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis* (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3
PHY 222	Organic Chemistry I	5	CHEM 2210, 2219	Organic Chemistry I and Lab	4
BIO 101 or BIO 155 or BIO 220	Biology or General Biology for Majors I or General Genetics	4	BIO SCI 1113, 1219 or BIO SCI 1213*, 1219 or BIO SCI 2223	General Biology and Lab or Principles of Biology* and Lab or General Genetics Applies to degree as Track Elective.	4
ITC 125 or ITC 244 or TC 220* or ITC 120*	Object-Oriented Programming I or Object-Oriented Programming II: C# or Programming II* or Programming I*	3	COMP SCI 1500 or COMP SCI 1971*	Computational Problem Solving or Intro to Programming Methodology* (C++) *Will be substituted for COMP SCI 1500. COMP SCI 1981 will be waived.	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.					
LAL 150 or LAL 151 or LAL 120 or LAL 121 or LAL 210 or HST 105* or HST 106* or ART 101 or ART 102 or MUS 101 or MUS 102 or DRM 120 or Literature	English Literature Survey to 1750 or English Literature Survey from 1750 to Present or American Literature Survey to 1870 or American Literature Survey from 1870 to Present or A Survey of World Literature I or American History to 1865* or American History from 1865* or Art Survey and Appreciation I or Art Survey and Appreciation II or Fundamentals of Music or Music Appreciation 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 1180 or MUSIC 1150 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 Art Appreciation or Art Appreciation or Music Appreciation 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 PHILOS 3223.					
PHI 153	Bioethics	3	PHILOS 3223	Bioethics	3
HST 101 or HST 102* or GEO 101 or PSC 105* or PSY 101 or ECN 102 or ECN 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography I or Intro to American Government* or General Psychology or Microeconomics or 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
No free electives applied to the degree.		0	Maximum Free Electives		0
Group 2 Major Requirements		37	Group 2 Major Requirements		34
Group 1 Core Requirements		32	Group 1 Core Requirements		27
Total Hours		69			Total Hours*
*S&T advisor permission is required to transfer more than 69 credit hours toward the degree.					

Biomedical Engineering-Biomaterials Group 2 Major Requirements

Moberly Area Community College		Semester	Missouri S&T			
SPK 101	Public Speaking	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
PHY 121	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5	
PHY 122	General Chemistry II	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3	
PHY 222	Organic Chemistry I	5	CHEM 2210, 2219*	Organic Chemistry I and Lab* *CHEM 2219 Lab applies to the degree as a Track Elective (non-engineering).	4	
BIO 101 or BIO 155 or BIO 220	Biology or General Biology for Majors I or General Genetics	4	BIO SCI 1113, 1219 or BIO SCI 1213*, 1219 or BIO SCI 2223	General Biology and Lab or Principles of Biology* and Lab or General Genetics Applies to degree as Track Elective.	4	
ITC 125 or ITC 244 or TC 220* or ITC 120*	Object-Oriented Programming I or Object-Oriented Programming II: C# or Programming II* or Programming I*	3	COMP SCI 1500 or COMP SCI 1971*	Computational Problem Solving or Intro to Programming Methodology* (C++) *Will be substituted for COMP SCI 1500. COMP SCI 1981 will be waived.	3	
EGN 201	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	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.						
LAL 150 or LAL 151 or LAL 120 or LAL 121 or LAL 210 or HST 105* or HST 106* or ART 101 or ART 102 or MUS 101 or MUS 102 or DRM 120 or Literature	English Literature Survey to 1750 or English Literature Survey from 1750 to Present or American Literature Survey to 1870 or American Literature Survey from 1870 to Present or A Survey of World Literature I or American History to 1865* or American History from 1865* or Art Survey and Appreciation I or Art Survey and Appreciation II or Fundamentals of Music or Music Appreciation 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 1180 or MUSIC 1150 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 Art Appreciation or Art Appreciation or Music Appreciation 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 PHILOS 3223.						
PHI 153	Bioethics	3	PHILOS 3223	Bioethics	3	
HST 101 or HST 102* or GEO 101 or PSC 105* or PSY 101 or ECN 102 or ECN 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography I or Intro to American Government* or General Psychology or Microeconomics or 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	
No free electives applied to the degree.		0	Maximum Free Electives		0	
Group 2 Major Requirements		40	Group 2 Major Requirements		37	
Group 1 Core Requirements		32	Group 1 Core Requirements		27	
Total Hours		72			Total Hours*	64
*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

Moberly Area Community College		Semester	Missouri S&T			
LAL 102 or SPK 101	Composition II or Public Speaking I	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech <i>Applies to degree as Gen Ed Communication requirement.</i>	3	
EGN 201	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
PHY 121	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5	
PHY 122	General Chemistry II	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <i>*CHEM 1510 is not a degree requirement, transfers as general elective credit.</i>	3	
ITC 125 or ITC 244 or ITC 247	Object-Oriented Programming I or Object-Oriented Programming II: C# or Python Programming	3	COMP SCI 1500 or COMP SCI 1500 or COMP SCI 1973, 1983	Computational Problem Solving or Computational Problem Solving or Intro to Python Programming and Lab	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.						
LAL 150 or LAL 151 or LAL 120 or LAL 121 or LAL 210 or HST 105* or HST 106* or ART 101 or ART 102 or MUS 101 or MUS 102 or DRM 120 or Literature	English Literature Survey to 1750 or English Literature Survey from 1750 to Present or American Literature Survey to 1870 or American Literature Survey from 1870 to Present or A Survey of World Literature I or American History to 1865* or American History from 1865* or Art Survey and Appreciation I or Art Survey and Appreciation II or Fundamentals of Music or Music Appreciation or Theatre Appreciation or Any literature with prerequisite of no more than English Composition I, <i>*Satisfies the State of Missouri government requirement.</i>	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 1180 or MUSIC 1150 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 Art Appreciation or Art Appreciation or Music Appreciation or Music Appreciation or Theatre via Video or Any literature with prerequisite of no more than ENGLISH 1120. <i>*Satisfies the State of Missouri government requirement.</i>	6	
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.						
HST 101 or HST 102* or GEO 101 or PHI 150 or PHI 151 or PSC 105* or PSY 101 or ECN 102 or ECN 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography I or Intro to Philosophy or Intro to Logic or Intro to American Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language <i>*Satisfies the State of Missouri government requirement.</i>	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 <i>*Satisfies the State of Missouri government requirement.</i>	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	
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives		0	
Group 2 Major Requirements		34	Group 2 Major Requirements		32	
Group 1 Core Requirements		32	Group 1 Core Requirements		27	
Total Hours		66			Total Hours*	59
<i>*S&T advisor permission is required to transfer more than 68 credits toward the S&T Ceramic Engineering degree.</i>						

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

Moberly Area Community College		Semester	Missouri S&T		
SPK 101	Public Speaking	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
PHY 121	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5
PHY 122	General Chemistry II	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis* (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3
PHY 222	Organic Chemistry I	5	CHEM 2210, 2219*	Organic Chemistry I and Lab* *CHEM 2210 is a degree requirement. CHEM 2219 applies to the degree as 1 of 9 required science elective credits. See note below .	4
BIO 206	Microbiology	4	BIO SCI 3313, 3319	Microbiology and Lab Partially satisfies a 9-hour science elective requirement.	9
ITC 125 or ITC 244 or ITC 220* or ITC 120*	Object-Oriented Programming I or Object-Oriented Programming II: C# or Programming II* or Programming I*	3	COMP SCI 1500 or COMP SCI 1971*	Computational Problem Solving or Intro to Programming Methodology* (C++) *Will be substituted for COMP SCI 1500. COMP SCI 1981 will be waived.	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.					
LAL 150 or LAL 151 or LAL 120 or LAL 121 or LAL 210 or HST 105* or HST 106* or ART 101 or ART 102 or MUS 101 or MUS 102 or DRM 120 or Literature	English Literature Survey to 1750 or English Literature Survey from 1750 to Present or American Literature Survey to 1870 or American Literature Survey from 1870 to Present or A Survey of World Literature I or American History to 1865* or American History from 1865* or Art Survey and Appreciation I or Art Survey and Appreciation II or Fundamentals of Music or Music Appreciation 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 1180 or MUSIC 1150 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 Art Appreciation or Art Appreciation or Music Appreciation 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.					
HST 101 or HST 102* or GEO 101 or PHI 150 or PHI 151 or PSC 105* or PSY 101 or ECN 102 or ECN 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography I or Intro to Philosophy or Intro to Logic or Intro to American Government* or General Psychology or Microeconomics or 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		37	Group 2 Major Requirements		39
Group 1 Core Requirements		32	Group 1 Core Requirements		27
Total Hours		69			Total Hours*
					66
*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

Moberly Area Community College		Semester	Missouri S&T			
LAL 102 or SPK 101	Composition II or Public Speaking I	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
PHY 121	General Chemistry I	5	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5	
PHY 163	Geology MOTR GEOL 100L	3	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology MOTR GEOL 100L	3	
EGN 201	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	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.						
LAL 150 or LAL 151 or LAL 120 or LAL 121 or LAL 210 or HST 105* or HST 106* or ART 101 or ART 102 or MUS 101 or MUS 102 or DRM 120 or Literature	English Literature Survey to 1750 or English Literature Survey from 1750 to Present or American Literature Survey to 1870 or American Literature Survey from 1870 to Present or A Survey of World Literature I or American History to 1865* or American History from 1865* or Art Survey and Appreciation I or Art Survey and Appreciation II or Fundamentals of Music or Music Appreciation 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 1180 or MUSIC 1150 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 Art Appreciation or Art Appreciation or Music Appreciation 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.						
HST 101 or HST 102* or GEO 101 or PHI 150 or PHI 151 or PSC 105* or PSY 101 or ECN 102 or ECN 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography I or Intro to Philosophy or Intro to Logic or Intro to American Government* or General Psychology or Microeconomics or 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		29	Group 2 Major Requirements		29	
Group 1 Core Requirements		32	Group 1 Core Requirements		27	
Total Hours		61			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

Moberly Area Community College		Semester	Missouri S&T		
SPK 101	Public Speaking I	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
PHY 121	General Chemistry I	5	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	3
PHY 121	General Chemistry I	5	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	3
ITC 125 or TC 244 or TC 220* or ITC 120*	Object-Oriented Programming I or Object-Oriented Programming II: C# or Programming II* or Programming I*	3	COMP SCI 1500 or COMP SCI 1971*	Computational Problem Solving or Intro to Programming Methodology* (C++) *Will be substituted for COMP SCI 1500. COMP SCI 1981 will be waived.	4
CIV ENG 2200 and Missouri S&T Dynamics BOTH of the courses above or ONE of the courses below. OR BIO 220	Engineering Mechanics-Statics (3) and MECH ENG 2350 Dynamics to be taken at S&T Both courses above combined or any one of the following courses satisfies a required engineering science elective. OR General Genetics	3	CIV ENG 2200 and MECH ENG 2350 BOTH of the courses above or ONE of the courses below. OR BIO SCI 2223	Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (2) Both courses above combined or any one of the following courses satisfies a required engineering science elective. OR General Genetics (3)	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.					
LAL 150 or LAL 151 or LAL 120 or LAL 121 or LAL 210 or HST 105* or HST 106* or ART 101 or ART 102 or MUS 101 or MUS 102 or DRM 120 or Literature	English Literature Survey to 1750 or English Literature Survey from 1750 to Present or American Literature Survey to 1870 or American Literature Survey from 1870 to Present or A Survey of World Literature I or American History to 1865* or American History from 1865* or Art Survey and Appreciation I or Art Survey and Appreciation II or Fundamentals of Music or Music Appreciation 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 1180 or MUSIC 1150 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 Art Appreciation or Art Appreciation or Music Appreciation 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.					
HST 101 or HST 102* or GEO 101 or PHI 150 or PHI 151 or PSC 105* or PSY 101 or ECN 102 or ECN 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography I or Intro to Philosophy or Intro to Logic or Intro to American Government* or General Psychology or Microeconomics or 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.					
LAL 102	Composition II	3	ENGLISH 1160	Writing and Research	3
Electives	Maximum Free Electives	3	Electives	Maximum Free Electives	3
	Group 2 Major Requirements	37		Group 2 Major Requirements	34
	Group 1 Core Requirements	32		Group 1 Core Requirements	27
	Total Hours	69		Total Hours*	61
*S&T advisor permission is required to transfer more than 68 credits toward the S&T Computer Engineering degree.					

*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

Moberly Area Community College			Semester	Missouri S&T	
SPK 101	Public Speaking I	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
PHY 121	General Chemistry I	5	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
ITC 125 or ITC 244 or ITC 220* or ITC 120*	Object-Oriented Programming I or Object-Oriented Programming II: C# or Programming II* or Programming I*	3	COMP SCI 1500 or COMP SCI 1971*	Computational Problem Solving or Intro to Programming Methodology* (C++) *Will be substituted for COMP SCI 1500. COMP SCI 1981 will be waived.	3
CIV ENG 2200 and Missouri S&T Dynamics BOTH of the courses above or ONE of the courses below. OR BIO 220	Engineering Mechanics-Statics (3) and MECH ENG 2350 Dynamics to be taken at S&T Both courses above combined or any one of the following courses satisfies a required engineering science elective. OR General Genetics	3	CIV ENG 2200 and MECH ENG 2350 BOTH of the courses above or ONE of the courses below. OR BIO SCI 2223	Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (2) Both courses above combined or any one of the following courses satisfies a required engineering science elective. OR General Genetics (3)	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.					
LAL 150 or LAL 151 or LAL 120 or LAL 121 or LAL 210 or HST 105* or HST 106* or ART 101 or ART 102 or MUS 101 or MUS 102 or DRM 120 or Literature	English Literature Survey to 1750 or English Literature Survey from 1750 to Present or American Literature Survey to 1870 or American Literature Survey from 1870 to Present or A Survey of World Literature I or American History to 1865* or American History from 1865* or Art Survey and Appreciation I or Art Survey and Appreciation II or Fundamentals of Music or Music Appreciation 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 1180 or MUSIC 1150 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 Art Appreciation or Art Appreciation or Music Appreciation 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.					
HST 101 or HST 102* or GEO 101 or PHI 150 or PHI 151 or PSC 105* or PSY 101 or ECN 102 or ECN 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography I or Intro to Philosophy or Intro to Logic or Intro to American Government* or General Psychology or Microeconomics or 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.					
LAL 102	Composition II	3	ENGLISH 1160	Writing and Research	3
Electives	Maximum Free Electives	6	Electives	Maximum Free Electives	6
	Group 2 Major Requirements	35		Group 2 Major Requirements	35
	Group 1 Core Requirements	32		Group 1 Core Requirements	27
	Total Hours	67		Total Hours*	62
*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

Moberly Area Community College			Semester	Missouri S&T	
SPK 101	Public Speaking I	3	SPMS 1185	Principles of Speech	3
PHY 121	General Chemistry I	5	CHEM 1310, 1319	Applies to degree as Gen Ed Communication requirement.	5
EGN 201	Statics	3	CIV ENG 2200	General Chemistry I and Lab	3
Engineering Mechanics-Statics					
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.					
LAL 150 or	English Literature Survey to 1750 or		ENGLISH 1211 or	British Literature I: The Beginnings to 1800 or	
LAL 151 or	English Literature Survey from 1750 to Present or		ENGLISH 1212 or	British Literature II: 1800 to Present	
LAL 120 or	American Literature Survey to 1870 or		ENGLISH 1221 or	American Literature: 1600 to 1865 or	
LAL 121 or	American Literature Survey from 1870 to Present or		ENGLISH 1222 or	American Literature: 1865 to Present or	
LAL 210 or	A Survey of World Literature I or		ENGLISH 1231 or	World Literature I: Beginnings to the Renaissance or	
HST 105* or	American History to 1865* or		HISTORY 1300* or	American History to 1877* or	
HST 106* or	American History from 1865* or		HISTORY 1310* or	American History Since 1877* or	
ART 101 or	Art Survey and Appreciation I or	6	ART 1180 or	Art Appreciation or	6
ART 102 or	Art Survey and Appreciation II or		ART 1180 or	Art Appreciation or	
MUS 101 or	Fundamentals of Music or		MUSIC 1150 or	Music Appreciation or	
MUS 102 or	Music Appreciation or		MUSIC 1150 or	Music Appreciation or	
DRM 120 or	Theatre Appreciation or		THEATRE 1190 or	Theatre via Video or	
Literature	Any literature with prerequisite of no more than English		Literature	Any literature with prerequisite of no more than ENGLISH 1120.	
	Composition I,			*Satisfies the State of Missouri government requirement.	
	*Satisfies the State of Missouri government requirement.				
Behavioral and Social Sciences					
Select 6 hours from at least two specific disciplines to include PSYCH 1101.					
PSY 101	General Psychology	3	PSYCH 1101	General Psychology Required	3
HST 101 or	Western Civilization I or		HISTORY 1100 or	Early Western Civilization or	
HST 102* or	Western Civilization II* or		HISTORY 1200* or	Modern Western Civilization* or	
GEO 101 or	World Geography I or		HISTORY 2110 or	World Regional Geography or	
PHI 150 or	Intro to Philosophy or		PHILOS 1105 or	Self and World: Intro to Philosophy or	
PHI 151 or	Intro to Logic or	3	PHILOS 1115 or	Logic and Reasoning: An Introduction or	3
PSC 105* or	Intro to American Government* or		POL SCI 1200* or	American Government* or	
ECN 102 or	Microeconomics or		ECON 1100 or	Principles of Microeconomics or	
ECN 101 or	Macroeconomics or		ECON 1200 or	Principles of Macroeconomics or	
Foreign Language	Elementary or Intermediate Foreign Language		Foreign Language	Elementary or Intermediate Foreign Language	
	*Satisfies the State of Missouri government requirement.				
Humanities, Arts, and Social Sciences					
Select 3 hours.					
LAL 102	Composition II	3	ENGLISH 1160	Writing and Research	3
No free electives applied to the degree.		0	Electives	Maximum Free Electives	0
Group 2 Major Requirements		26	Group 2 Major Requirements		26
Group 1 Core Requirements		32	Group 1 Core Requirements		27
Total Hours		58			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

Modbury Area Community College		Semester		Missouri S&T	
LAL 102 or SPK 101	Composition II or Public Speaking I	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech <i>Applies to degree as Gen Ed Communication requirement.</i>	3
PHY 163	Geology MOTR GEOL 100L	3	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology MOTR GEOL 100L	3
PHY 121	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5
PHY 122	General Chemistry II	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <i>*CHEM 1510 is not a degree requirement, transfers as general elective credit.</i>	3
BIO 101 or BIO 155	Biology or General Biology for Majors I	4	BIO SCI 1113, 1219* or BIO SCI 1213*, 1219*	General Biology (3) and Lab* (1) or Principles of Biology* and Lab* <i>*The lab is not a degree requirement, transfers as general elective credit *BIO SCI 1213 will be substituted for BIO SCI 1113.</i>	3
EGN 201	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	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, 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.					
LAL 150 or LAL 151 or LAL 120 or LAL 121 or LAL 210 or HST 105* or HST 106* or ART 101 or ART 102 or MUS 101 or MUS 102 or DRM 120 or Literature	English Literature Survey to 1750 or English Literature Survey from 1750 to Present or American Literature Survey to 1870 or American Literature Survey from 1870 to Present or A Survey of World Literature I or American History to 1865* or American History from 1865* or Art Survey and Appreciation I or Art Survey and Appreciation II or Fundamentals of Music or Music Appreciation or Theatre Appreciation or Any literature with prerequisite of no more than English Composition I, <i>*Satisfies the State of Missouri government requirement.</i>	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 1180 or MUSIC 1150 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 Art Appreciation or Art Appreciation or Music Appreciation or Music Appreciation or Theatre via Video or Any literature with prerequisite of no more than ENGLISH 1120. <i>*Satisfies the State of Missouri government requirement.</i>	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.					
HST 102* or PHI 150 or PHI 151 or PSY 101 or ECN 102 or ECN 101 or Foreign Language	Western Civilization II* Intro to Philosophy or Intro to Logic or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language <i>*Satisfies the State of Missouri government requirement.</i>	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 <i>*Satisfies the State of Missouri government requirement and a degree-specific gen ed requirement.</i>	6
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives		0
Group 2 Major Requirements		35	Group 2 Major Requirements		32
Group 1 Core Requirements		32	Group 1 Core Requirements		27
Total Hours		67	Total Hours*		59
<i>*S&T advisor permission is required to transfer more than 69 credits toward the S&T Environmental Engineering degree.</i>					

Geological Engineering Group 2 Major Requirements

Moberly Area Community College		Semester	Missouri S&T		
PHY 121	General Chemistry I	5	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
PHY 163	Geology MOTR GEOL 100L	3	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology MOTR GEOL 100L	3
EGN 201	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	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.					
LAL 150 or LAL 151 or LAL 120 or LAL 121 or LAL 210 or HST 105* or HST 106* or ART 101 or ART 102 or MUS 101 or MUS 102 or DRM 120 or Literature	English Literature Survey to 1750 or English Literature Survey from 1750 to Present or American Literature Survey to 1870 or American Literature Survey from 1870 to Present or A Survey of World Literature I or American History to 1865* or American History from 1865* or Art Survey and Appreciation I or Art Survey and Appreciation II or Fundamentals of Music or Music Appreciation 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 1180 or MUSIC 1150 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 Art Appreciation or Art Appreciation or Music Appreciation 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.					
HST 101 or HST 102* or GEO 101 or PHI 150 or PHI 151 or PSC 105* or PSY 101 or ECN 102 or ECN 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography I or Intro to Philosophy or Intro to Logic or Intro to American Government* or General Psychology or Microeconomics or 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		26	Group 2 Major Requirements		26
Group 1 Core Requirements		32	Group 1 Core Requirements		27
Total Hours		58	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

Moberly Area Community College			Semester	Missouri S&T		
AMT 211	Computer Aided Design II	3	MECH ENG 1761	Intro to Computer Aided Design	1	
LAL 102 or SPK 101	Composition II or Public Speaking I	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
PHY 121	General Chemistry I	5	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5	
EGN 201	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	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.						
LAL 150 or LAL 151 or LAL 120 or LAL 121 or LAL 210 or HST 105* or HST 106* or ART 101 or ART 102 or MUS 101 or MUS 102 or DRM 120 or Literature	English Literature Survey to 1750 or English Literature Survey from 1750 to Present or American Literature Survey to 1870 or American Literature Survey from 1870 to Present or A Survey of World Literature I or American History to 1865* or American History from 1865* or Art Survey and Appreciation I or Art Survey and Appreciation II or Fundamentals of Music or Music Appreciation 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 1180 or MUSIC 1150 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 Art Appreciation or Art Appreciation or Music Appreciation 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.						
HST 101 or HST 102* or GEO 101 or PHI 150 or PHI 151 or PSC 105* or PSY 101 or ECN 102 or ECN 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography I or Intro to Philosophy or Intro to Logic or Intro to American Government* or General Psychology or Microeconomics or 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	
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives		0	
Group 2 Major Requirements		29	Group 2 Major Requirements		27	
Group 1 Core Requirements		32	Group 1 Core Requirements		27	
Total Hours		61			Total Hours*	
*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

Moberly Area Community College		Semester	Missouri S&T			
LAL 102 or SPK 101	Composition II or Public Speaking I	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
ITC 125 or ITC 244 or ITC 247	Object-Oriented Programming I or Object-Oriented Programming II: C# or Python Programming	3	COMP SCI 1500 or COMP SCI 1500 or COMP SCI 1973, 1983	Computational Problem Solving or Computational Problem Solving or Intro to Python Programming and Lab	3	
EGN 201	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
PHY 121	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5	
PHY 122	General Chemistry II	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3	
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.						
LAL 150 or LAL 151 or LAL 120 or LAL 121 or LAL 210 or HST 105* or HST 106* or ART 101 or ART 102 or MUS 101 or MUS 102 or DRM 120 or Literature	English Literature Survey to 1750 or English Literature Survey from 1750 to Present or American Literature Survey to 1870 or American Literature Survey from 1870 to Present or A Survey of World Literature I or American History to 1865* or American History from 1865* or Art Survey and Appreciation I or Art Survey and Appreciation II or Fundamentals of Music or Music Appreciation 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 1180 or MUSIC 1150 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 Art Appreciation or Art Appreciation or Music Appreciation 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.						
HST 101 or HST 102* or GEO 101 or PHI 150 or PHI 151 or PSC 105* or PSY 101 or ECN 102 or ECN 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography I or Intro to Philosophy or Intro to Logic or Intro to American Government* or General Psychology or Microeconomics or 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		37	Group 2 Major Requirements		32	
Group 1 Core Requirements		32	Group 1 Core Requirements		27	
Total Hours		69			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

Moberly Area Community College		Semester	Missouri S&T		
LAL 102 or SPK 101	Composition II or Public Speaking I	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
PHY 121	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5
EGN 201	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
PHY 122	General Chemistry II	5	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology MOTR GEOL 100L	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.					
LAL 150 or LAL 151 or LAL 120 or LAL 121 or LAL 210 or HST 105* or HST 106* or ART 101 or ART 102 or MUS 101 or MUS 102 or DRM 120 or Literature	English Literature Survey to 1750 or English Literature Survey from 1750 to Present or American Literature Survey to 1870 or American Literature Survey from 1870 to Present or A Survey of World Literature I or American History to 1865* or American History from 1865* or Art Survey and Appreciation I or Art Survey and Appreciation II or Fundamentals of Music or Music Appreciation 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 1180 or MUSIC 1150 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 Art Appreciation or Art Appreciation or Music Appreciation 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.					
HST 101 or HST 102* or GEO 101 or PHI 150 or PHI 151 or PSC 105* or PSY 101 or ECN 102 or ECN 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography I or Intro to Philosophy or Intro to Logic or Intro to American Government* or General Psychology or Microeconomics or 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		28	Group 2 Major Requirements		26
Group 1 Core Requirements		32	Group 1 Core Requirements		27
Total Hours		60	Total Hours*		53
*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

Moberly Area Community College			Semester	Missouri S&T		
LAL 102 or SPK 101	Composition II or Public Speaking I	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
PHY 121	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5	
EGN 201	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
MTH 215	Intro to Probability and Statistics	3	STAT 3111	Statistical Tools for Decision Making	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.						
LAL 150 or LAL 151 or LAL 120 or LAL 121 or LAL 210 or HST 105* or HST 106* or ART 101 or ART 102 or MUS 101 or MUS 102 or DRM 120 or Literature	English Literature Survey to 1750 or English Literature Survey from 1750 to Present or American Literature Survey to 1870 or American Literature Survey from 1870 to Present or A Survey of World Literature I or American History to 1865* or American History from 1865* or Art Survey and Appreciation I or Art Survey and Appreciation II or Fundamentals of Music or Music Appreciation 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 1180 or MUSIC 1150 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 Art Appreciation or Art Appreciation or Music Appreciation 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.						
ECN 102 or ECN 101	Microeconomics or Macroeconomics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3	
HST 101 or HST 102* or GEO 101 or PHI 150 or PHI 151 or PSC 105* or PSY 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography I or Intro to Philosophy or Intro to Logic or Intro to American Government* or General Psychology or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or 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		29	Group 2 Major Requirements		29	
Group 1 Core Requirements		32	Group 1 Core Requirements		27	
Total Hours		61			Total Hours*	56
*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

Moberly Area Community College		Semester	Missouri S&T			
LAL 102 or SPK 101	Composition II or Public Speaking I	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
PHY 121	General Chemistry I	5	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5	
ITC 125 or ITC 244	Object-Oriented Programming I or Object-Oriented Programming II: C#		COMP SCI 1500	Computational Problem Solving	3	
PHY 163	Geology MOTR GEOL 100L	3	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology MOTR GEOL 100L	3	
EGN 201	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	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.						
LAL 150 or LAL 151 or LAL 120 or LAL 121 or LAL 210 or HST 105* or HST 106* or ART 101 or ART 102 or MUS 101 or MUS 102 or DRM 120 or Literature	English Literature Survey to 1750 or English Literature Survey from 1750 to Present or American Literature Survey to 1870 or American Literature Survey from 1870 to Present or A Survey of World Literature I or American History to 1865* or American History from 1865* or Art Survey and Appreciation I or Art Survey and Appreciation II or Fundamentals of Music or Music Appreciation 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 1180 or MUSIC 1150 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 Art Appreciation or Art Appreciation or Music Appreciation 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.						
HST 101 or HST 102* or GEO 101 or PHI 150 or PHI 151 or PSC 105* or PSY 101 or ECN 102 or ECN 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography I or Intro to Philosophy or Intro to Logic or Intro to American Government* or General Psychology or Microeconomics or 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	
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives		0	
Group 2 Major Requirements		29	Group 2 Major Requirements		32	
Group 1 Core Requirements		32	Group 1 Core Requirements		27	
Total Hours		61			Total Hours*	59
*S&T advisor permission is required to transfer more than 69 credits toward the S&T Petroleum Engineering degree.						

*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

Moberly Area Community College			Semester	Missouri S&T		
LAL 102 or SPK 101	Composition II or Public Speaking I	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
PHY 121	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5	
PHY 122	General Chemistry II	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3	
ITC 125 or ITC 244 or ITC 220* or ITC 120*	Object-Oriented Programming I or Object-Oriented Programming II: C# or Programming II* or Programming I*	3	COMP SCI 1500 or COMP SCI 1971*	Computational Problem Solving or Intro to Programming Methodology* (C++) *Will be substituted for COMP SCI 1500. COMP SCI 1981 will be waived.	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.						
LAL 150 or LAL 151 or LAL 120 or LAL 121 or LAL 210 or HST 105* or HST 106* or ART 101 or ART 102 or MUS 101 or MUS 102 or DRM 120 or Literature	English Literature Survey to 1750 or English Literature Survey from 1750 to Present or American Literature Survey to 1870 or American Literature Survey from 1870 to Present or A Survey of World Literature I or American History to 1865* or American History from 1865* or Art Survey and Appreciation I or Art Survey and Appreciation II or Fundamentals of Music or Music Appreciation 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 1180 or MUSIC 1150 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 Art Appreciation or Art Appreciation or Music Appreciation 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.						
HST 101 or HST 102* or GEO 101 or PHI 150 or PHI 151 or PSC 105* or PSY 101 or ECN 102 or ECN 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography I or Intro to Philosophy or Intro to Logic or Intro to American Government* or General Psychology or Microeconomics or 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		34	Group 2 Major Requirements		32	
Group 1 Core Requirements		32	Group 1 Core Requirements		27	
Total Hours		66			Total Hours*	59
*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

Moberly Area Community College			Semester	Missouri S&T		
LAL 102 or SPK 101	Composition II or Public Speaking I	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
PHY 121	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5	
PHY 122	General Chemistry II	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3	
ITC 125 or ITC 244 or ITC 220* or ITC 120*	Object-Oriented Programming I or Object-Oriented Programming II: C# or Programming II* or Programming I*	3	COMP SCI 1500 or COMP SCI 1971*	Computational Problem Solving or Intro to Programming Methodology* (C++) *Will be substituted for COMP SCI 1500. COMP SCI 1981 will be waived.	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.						
LAL 150 or LAL 151 or LAL 120 or LAL 121 or LAL 210 or HST 105* or HST 106* or ART 101 or ART 102 or MUS 101 or MUS 102 or DRM 120 or Literature	English Literature Survey to 1750 or English Literature Survey from 1750 to Present or American Literature Survey to 1870 or American Literature Survey from 1870 to Present or A Survey of World Literature I or American History to 1865* or American History from 1865* or Art Survey and Appreciation I or Art Survey and Appreciation II or Fundamentals of Music or Music Appreciation 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 1180 or MUSIC 1150 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 Art Appreciation or Art Appreciation or Music Appreciation 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.						
HST 101 or HST 102* or GEO 101 or PHI 150 or PHI 151 or PSC 105* or PSY 101 or ECN 102 or ECN 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography I or Intro to Philosophy or Intro to Logic or Intro to American Government* or General Psychology or Microeconomics or 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		34	Group 2 Major Requirements		32	
Group 1 Core Requirements		32	Group 1 Core Requirements		27	
Total Hours		66			Total Hours*	59
*S&T advisor permission is required to transfer more than 68 credits toward the S&T Ceramic Engineering degree.						