

## Ozarks Technical Community College — Missouri S&T

### General Engineering

Transfer Guide Effective as of Fall 2025

Complete Group 1 - Core Requirements and Group 2 - Major Requirements for major of choice.

Students are not required to complete all courses on this guide before transferring to Missouri S&T.

### Group 1 - Core Requirements: All Majors Take All Courses

Engineering students take all Group 1 - Core Requirements and Group 2 - Major Requirements for major of choice. Math prerequisites: While they are not part of Missouri S&T engineering degree requirements, algebra and trigonometry skills are critical to success in calculus. To prepare for entry into calculus, students should follow math placement testing and advising recommendations at their college.

Ozarks Technical Community College			Semester	Missouri S&T		
MTH 140	Analytic Geometry and Calculus I	5		MATH 1214	Calculus I	Grade of C or better is required. 4
MTH 141	Analytic Geometry and Calculus II	5		MATH 1215	Calculus II	Grade of C or better is required. 4
MTH 240	Analytic Geometry and Calculus III	3		MATH 2222	Calculus III	Grade of C or better is required. 4
MTH 241	Differential Equations	3		MATH 3304	Elementary Differential Equations	3
PHY 220	Physics for Engineers and Scientists I	5		PHYSICS 1135	Engineering Physics I	Grade of C or better is required. 4
PHY 222	Physics for Engineers and Scientists II	5		PHYSICS 2135	Engineering Physics II	Grade of C or better is required. 4
EGR 100	Study and Careers in Engineering	1		FR ENG 1100	Study and Careers in Engineering and Computing	1
ENG 101	Composition I	3		ENGLISH 1120	Exposition and Argumentation	3
		Total Hours	30			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 or Biomaterials**  
**Ceramic Engineering**  
**Chemical Engineering and Biochemistry Emphasis**  
**Civil Engineering**  
**Computer Engineering**  
**Electrical Engineering**

**Engineering Management**  
**Environmental Engineering**  
**Geological Engineering**  
**Mechanical Engineering**  
**Metallurgical Engineering**  
**Mining Engineering**  
**Nuclear Engineering**  
**Petroleum Engineering**

Engineering Major Requirements are detailed on the following pages.

**Free Electives:** Some programs allow Free Electives as indicated within each major. Free Electives should be selected in consultation with your advisor and may not include remedial/deficiency courses, algebra, trigonometry, pre-calculus, or extra credits in required courses.

This transfer guide is published by Missouri University of Science and Technology and is in effect as of Fall 2025.  
Further information or updates are available from Missouri S&T Transfer Admissions at [transfer.mst.edu](mailto:transfer.mst.edu), [transfer@mst.edu](mailto:transfer@mst.edu), or 800-522-0938.

## Aerospace Engineering Group 2 Major Requirements

Ozarks Technical Community College			Semester	Missouri S&T		
DDT 200	Production Design Drafting	4	MECH ENG 1720	Intro to Engineering Design	3	
ENG 102 or ENG 150 or COM 105	Composition II or Technical Writing or Public Speaking	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3	
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310*, 1319	General Chemistry I and Lab <small>*CHEM 1310 will be substituted for CHEM 1305.</small>	5	
CSC 140	C++ Programming I	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3	
EGR 201	Engineering Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
MTH 230	Linear Algebra	3	MATH 3108	Linear Algebra I <small>Satisfies the Advanced Math/Comp Sci elective requirement.</small>	3	
PHL 105	Intro to Ethics <small>or other engineering, business, bio, social ethics approved by advisor</small>	3	PHILOS 1130	How Should I Live? An Introduction to Ethics <small>or other engineering, business, bio, social ethics approved by advisor</small>	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.						
ENG 240 or ENG 241 or ENG 270 or ENG 271 or ENG 260 or HST 120* or HST 130* or ART 100 or MUS 105 or THR 101	Survey of English Literature I or Survey of English Literature II or Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or US History I: to 1865* or US History II: 1865-Present* or Art and Experience or Western Music Appreciation or Intro to Theater <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change <small>*Satisfies the State of Missouri government requirement.</small>	6	
Behavioral and Social Sciences						
Select 6 hours from at least two specific disciplines.						
HST 105 or HST 106* or GRY 101 or PHL 101 or PLS 101 or PSY 110 or ECO 275 or ECO 270 or Foreign Language	Ancient and Medieval World History or Modern World History* or World Geography or Intro to Philosophy or American Government and Politics or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHIL 1105 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 American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	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		30	Group 1 Core Requirements		27	
Total Hours		69			Total Hours*	
*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

Ozarks Technical Community College		Semester	Missouri S&T		
DDT 200	Production Design Drafting	4	MECH ENG 1720	Intro to Engineering Design	3
ENG 102 or ENG 150 or COM 105	Composition II or Technical Writing or Public Speaking	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310*, 1319	General Chemistry I and Lab <small>*CHEM 1310 will be substituted for CHEM 1305.</small>	5
EGR 201	Engineering Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 205	Engineering Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
PHY 110	Intro to Geology	4	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. <b>*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.</b>					
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.					
ENG 240 or ENG 241 or ENG 270 or ENG 271 or ENG 260 or HST 120* or HST 130* or ART 100 or MUS 105 or THR 101	Survey of English Literature I or Survey of English Literature II or Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or US History I: to 1865* or US History II: 1865-Present* or Art and Experience or Western Music Appreciation or Intro to Theater <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change <small>*Satisfies the State of Missouri government requirement.</small>	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines to include HISTORY 1200.					
HST 106*	Modern World History* <small>*Satisfies the State of Missouri Government requirement.</small>	3	HISTORY 1200*	Modern Western Civilization* <small>*Satisfies the State of Missouri Government requirement.</small>	3
PHL 101 or PLS 101* or PSY 110 or ECO 275 or ECO 270 or Foreign Language	Intro to Philosophy or American Government and Politics* or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	3	PHIL 1105 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Self and World: Intro to Philosophy or American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	3
No free electives applied to the degree.		0	Maximum Free Electives		0
Group 2 Major Requirements		34	Group 2 Major Requirements		31
Group 1 Core Requirements		30	Group 1 Core Requirements		27
Total Hours		64	Total Hours*		58
<small>*S&amp;T advisor permission is required to transfer more than 69 credits toward the S&amp;T Architectural Engineering degree.</small>					

## Biomedical Engineering-Biomanufacturing Group 2 Major Requirements

Ozarks Technical Community College			Semester	Missouri S&T		
COM 105	Public Speaking	3	SP&MS 1185	Principles of Speech <i>Applies to degree as Gen Ed Communication requirement.</i>	3	
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5	
CHM 170, 171	General Chemistry II and Lab	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	
CHM 242	Organic Chemistry I	6	CHEM 2210, 2219	Organic Chemistry I and Lab	4	
CHM 243 or BIO 101 or BIO 160 or BIO 250	Organic Chemistry II (6) or Life Science (4) or General Biology I (4) or Genetics (4)	4	CHEM 2220, 2229 or BIO SCI 1113, 1219 or BIO SCI 2223	Organic Chemistry II and Lab or General Biology and Lab or General Genetics <i>Applies to degree as Track Elective.</i>	4	
CSC 160 or CSC 210 or CSC 140*	Python Programming I (3) or Data Structures (4) or C++ Programming I (4)	3	CS 1500 or CS 1971, 1981*	Computational Problem Solving or Intro to Programming Methodology and Lab* (C++) <i>*Will be substituted for CS 1500.</i>	3	
<b>Humanities, Arts, and Social Sciences General Education Requirements</b> 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. <b>*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.</b>						
<b>Humanities and Fine Arts</b> Select 6 hours from at least two specific disciplines.						
ENG 240 or ENG 241 or ENG 270 or ENG 271 or ENG 260 or HST 120* or HST 130* or ART 100 or MUS 105 or THR 101	Survey of English Literature I or Survey of English Literature II or Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or <b>US History I: to 1865*</b> or <b>US History II: 1865-Present*</b> or Art and Experience or Western Music Appreciation or Intro to Theater <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 <b>HISTORY 1300*</b> or <b>HISTORY 1310*</b> or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or <b>American History to 1877*</b> or <b>American History Since 1877*</b> or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change <i>*Satisfies the State of Missouri government requirement.</i>	6	
<b>Behavioral and Social Sciences</b> Select 3 hours.						
HST 105 or HST 106* or GRY 101 or PLS 101 or PSY 110 or ECO 275 or ECO 270 or Foreign Language	Ancient and Medieval World History or <b>Modern World History*</b> or World Geography or American Government and Politics or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <i>*Satisfies the State of Missouri government requirement.</i>	3	HISTORY 1100 or <b>HISTORY 1200*</b> or HISTORY 2110 or <b>POL SCI 1200*</b> or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or <b>Modern Western Civilization*</b> or World Regional Geography or <b>American Government*</b> 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>	3	
<b>Humanities, Arts, and Social Sciences</b> ENGLISH 3560 required.						
ENG150	Technical Writing	3	ENGLISH 3560	Technical Writing	3	
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0	
	Group 2 Major Requirements	38		Group 2 Major Requirements	34	
	Group 1 Core Requirements	30		Group 1 Core Requirements	27	
	Total Hours	68			Total Hours*	61

\*S&T advisor permission is required to transfer more than 69 credit hours toward the degree.

## Biomedical Engineering-Biomaterials Group 2 Major Requirements

Ozarks Technical Community College		Semester	Missouri S&T		
COM 105	Public Speaking	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 170, 171	General Chemistry I and Lab	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3
CHM 242	Organic Chemistry I	6	CHEM 2210, 2219*	Organic Chemistry I and Lab* *CHEM 2219 Lab applies to the degree as a Track Elective (non-engineering).	4
CHM 243	Organic Chemistry II	6	CHEM 2220, 2229*	Organic Chemistry II and Lab* CHEM 2229 Lab applies to the degree as a Track Elective (non-engineering).	4
BIO 101 or BIO 160	Life Science or General Biology I	4	BIO SCI 1113*, 1219*	General Biology* and Lab* *Applies to degree as Track Elective (Non-engineering).	4
CSC 160 or CSC 210 or CSC 140*	Python Programming I (3) or Data Structures (4) or C++ Programming I (4)	3	CS 1500 or CS 1971,1981*	Computational Problem Solving or Intro to Programming Methodology and Lab* (C++) *Will be substituted for CS 1500.	3
EGR 201	Engineering 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.					
ENG 240 or ENG 241 or ENG 270 or ENG 271 or ENG 260 or HST 120* or HST 130* or ART 100 or MUS 105 or THR 101	Survey of English Literature I or Survey of English Literature II or Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or US History I: to 1865* or US History II: 1865-Present* or Art and Experience or Western Music Appreciation or Intro to Theater *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change *Satisfies the State of Missouri government requirement.	6
Behavioral and Social Sciences Select 3 hours.					
HST 105 or HST 106* or GRY 101 or PLS 101 or PSY 110 or ECO 275 or ECO 270 or Foreign Language	Ancient and Medieval World History or Modern World History* or World Geography or American Government and Politics or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3	HISTORY 1100 or 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.					
ENG150	Technical Writing	3	ENGLISH 3560	Technical Writing	3
No free electives applied to the degree.		0		Maximum Free Electives	0
Group 2 Major Requirements		47		Group 2 Major Requirements	41
Group 1 Core Requirements		30		Group 1 Core Requirements	27
Total Hours		77			Total Hours*
			*S&T advisor permission is required to transfer more than 69 credits toward the S&T Biomedical Engineering degree.		

\*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

Ozarks Technical Community College		Semester	Missouri S&T	
DDT 200	Production Design Drafting	4	MECH ENG 1720	Intro to Engineering Design 3
ENG 102 or ENG 150 or COM 105	Composition II or Technical Writing or Public Speaking	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech 3 <small>Applies to degree as Gen Ed Communication requirement.</small>
EGR 201	Engineering Statics	3	CIV ENG 2200	Engineering Mechanics-Statics 3
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab 5
CHM 170	General Chemistry II	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) 3 <small>*CHEM 1510 is not a degree requirement, transfers as general elective credit.</small>
CHM 242	Organic Chemistry I	6	CHEM 2210/2219*	Organic Chemistry I (3) and Lab* (1) 3 <small>Satisfies the advanced chemistry elective requirement. *The lab is not a degree requirement, transfers as general elective credit.</small>
<b>Humanities, Arts, and Social Sciences General Education Requirements</b> 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. <b>*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.</b>				
<b>Humanities and Fine Arts</b> Select 6 hours from at least two specific disciplines.				
ENG 240 or ENG 241 or ENG 270 or ENG 271 or ENG 260 or HST 120* or HST 130* or ART 100 or MUS 105 or THR 101	Survey of English Literature I or Survey of English Literature II or Survey of American Literature I or Survey of World Literature I or US History I: to 1865* or US History II: 1865-Present* or Art and Experience or Western Music Appreciation or Intro to Theater <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change <small>*Satisfies the State of Missouri government requirement.</small>
<b>Behavioral and Social Sciences</b> Select 6 hours from at least two specific disciplines.				
HST 105 or HST 106* or GRY 101 or PHL 101 or PLS 101 or PSY 110 or ECO 275 or ECO 270 or Foreign Language	Ancient and Medieval World History or Modern World History* or World Geography or Intro to Philosophy or American Government and Politics or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHIL 1105 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 American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>
<b>Humanities, Arts, and Social Sciences</b> 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.
No free electives applied to the degree.		0	Maximum Free Electives	
Group 2 Major Requirements		40	Group 2 Major Requirements	
Group 1 Core Requirements		30	Group 1 Core Requirements	
Total Hours		70	Total Hours*	
			62	

\*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

Ozarks Technical Community College			Semester	Missouri S&T	
DDT 200	Production Design Drafting	4	MECH ENG 1720	Intro to Engineering Design	3
COM 105	Public Speaking	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 170, 171	General Chemistry II and Lab	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis* (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3
CHM 242	Organic Chemistry I	6	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
CHM 243	Organic Chemistry II	6	CHEM 2220, 2229*	Organic Chemistry II (4) and Lab* (1) *CHEM 2229 is not a degree requirement, transfers as general elective credit.	4
CSC 160 or CSC 210 or CSC 140*	Python Programming I (3) or Data Structures (4) or C++ Programming I (4)	3	CS 1500 or CS 1971,1981*	Computational Problem Solving or Intro to Programming Methodology and Lab* (C++) *Will be substituted for CS 1500.	3
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 15 hours to include 6 hours Humanities and Fine Arts from at least two specific disciplines and 6 hours Behavioral and Social Sciences from at least two specific disciplines. *At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.					
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.					
ENG 240 or ENG 241 or ENG 270 or ENG 271 or ENG 260 or HST 120* or HST 130* or ART 100 or MUS 105 or THR 101	Survey of English Literature I or Survey of English Literature II or Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or US History I: to 1865* or US History II: 1865-Present* or Art and Experience or Western Music Appreciation or Intro to Theater *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change *Satisfies the State of Missouri government requirement.	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
HST 105 or HST 106* or GRY 101 or PHL 101 or PLS 101 or PSY 110 or ECO 275 or ECO 270 or Foreign Language	Ancient and Medieval World History or Modern World History* or World Geography or Intro to Philosophy or American Government and Politics or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHIL 1105 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 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.					
ENG150	Technical Writing	3	ENGLISH 3560	Technical Writing	3
No free electives applied to the degree.		0		Maximum Free Electives	0
Group 2 Major Requirements		47		Group 2 Major Requirements	40
Group 1 Core Requirements		30		Group 1 Core Requirements	27
Total Hours		77		Total Hours*	67
*S&T advisor permission is required to transfer more than 68 credits toward the S&T Chemical Engineering degree.					

\*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

Ozarks Technical Community College			Semester	Missouri S&T	
DDT 200	Production Design Drafting	4	MECH ENG 1720	Intro to Engineering Design	3
ENG 102 or ENG 150 or COM 105	Composition II or Technical Writing or Public Speaking	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech <i>Applies to degree as Gen Ed Communication requirement.</i>	3
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
PHY 110	Intro to Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
EGR 201	Engineering Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 205	Engineering Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
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.					
ENG 240 or ENG 241 or ENG 270 or ENG 271 or ENG 260 or HST 120* or HST 130* or ART 100 or MUS 105 or THR 101	Survey of English Literature I or Survey of English Literature II or Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or US History I: to 1865* or US History II: 1865-Present* or Art and Experience or Western Music Appreciation or Intro to Theater <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 MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change <i>*Satisfies the State of Missouri government requirement.</i>	6
Behavioral and Social Sciences					
Select 6 hours from at least two specific disciplines.					
HST 105 or HST 106* or GRY 101 or PHL 101 or PLS 101 or PSY 110 or ECO 275 or ECO 270 or Foreign Language	Ancient and Medieval World History or Modern World History* or World Geography or Intro to Philosophy or American Government and Politics or Intro to 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	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHIL 1105 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 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
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		30	Group 1 Core Requirements		27
Total Hours		67	Total Hours*		61
*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

Ozarks Technical Community College		Semester	Missouri S&T		
COM 105	Public Speaking	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CSC 160 or CSC 210 or CSC 140*	Python Programming I (3) or Data Structures (4) or C++ Programming I (4)	3	COMP SCI 1500 or COMP SCI 1971,1981*	Computational Problem Solving or Intro to Programming Methodology and Lab* <small>*Will be substituted for COMP SCI 1500.</small>	3
EGR 204 or CHM 242 or BIO 250	Statics and Dynamics (3) or Organic Chemistry I (5) or Genetics (3)	3	MECH 2340 or CHEM 2210 or BIO SCI 2223	Statics and Dynamics (3) or Organic Chemistry I (4) or General Genetics (3)	3
MTH 230 or MTH 215	Linear Algebra or Algebraic Structures	3	MATH 3108 or MATH 3109	Linear Algebra or Foundations of Mathematics <small>Satisfies a required math elective.</small>	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. <b>*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.</b>					
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.					
ENG 240 or ENG 241 or ENG 270 or ENG 271 or ENG 260 or HST 120* or HST 130* or ART 100 or MUS 105 or THR 101	Survey of English Literature I or Survey of English Literature II or Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or US History I: to 1865* or US History II: 1865-Present* or Art and Experience or Western Music Appreciation or Intro to Theater <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change <small>*Satisfies the State of Missouri government requirement.</small>	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
HST 105 or HST 106* or GRY 101 or PHL 101 or PLS 101 or PSY 110 or ECO 275 or ECO 270 or Foreign Language	Ancient and Medieval World History or Modern World History* or World Geography or Intro to Philosophy or American Government and Politics or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHIL 1105 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 American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6
Humanities, Arts, and Social Sciences Select 3 hours.					
ENG 102 or ENG 150	Composition II or Technical Writing	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	35		Group 2 Major Requirements	35
	Group 1 Core Requirements	30		Group 1 Core Requirements	27
	Total Hours	65		Total Hours*	62
<small>*S&amp;T advisor permission is required to transfer more than 68 credits toward the S&amp;T Computer Engineering degree.</small>					

## Electrical Engineering Group 2 Major Requirements

Ozarks Technical Community College			Semester	Missouri S&T	
DDT 200	Production Design Drafting	4	MECH ENG 1720	Intro to Engineering Design	3
COM 105	Public Speaking	3	SPMS 1185	Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CSC 160 or CSC 210 or CSC 140*	Python Programming I (3) or Data Structures (4) or C++ Programming I (4)	3	CS 1500 or CS 1971,1981*	Computational Problem Solving or Intro to Programming Methodology and Lab* <small>*Will be substituted for CS 1500.</small>	3
EGR 204 or CHM 242 or BIO 250	Statics and Dynamics (3) or Organic Chemistry I (5) or Genetics (3)	3	MECH ENG 2340 or CHEM 2210 or BIO SCI 2223	Statics and Dynamics or Organic Chemistry I or General Genetics	3
MTH 230	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. <b>*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.</b>					
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.					
ENG 240 or ENG 241 or ENG 270 or ENG 271 or ENG 260 or HST 120* or HST 130* or ART 100 or MUS 105 or THR 101	Survey of English Literature I or Survey of English Literature II or Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or US History I: to 1865* or US History II: 1865-Present* or Art and Experience or Western Music Appreciation or Intro to Theater <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change <small>*Satisfies the State of Missouri government requirement.</small>	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
HST 105 or HST 106* or GRY 101 or PHL 101 or PLS 101 or PSY 110 or ECO 275 or ECO 270 or Foreign Language	Ancient and Medieval World History or Modern World History* or World Geography or Intro to Philosophy or American Government and Politics or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHIL 1105 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 American Government*or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6
Humanities, Arts, and Social Sciences Select 3 hours.					
ENG 102 or ENG 150	Composition II or Technical Writing	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	42		Group 2 Major Requirements	41
	Group 1 Core Requirements	30		Group 1 Core Requirements	27
	Total Hours	72		Total Hours*	68
<small>*S&amp;T advisor permission is required to transfer more than 68 credits toward the S&amp;T Electrical Engineering degree.</small>					

## Engineering Management Group 2 Major Requirements

Ozarks Technical Community College			Semester	Missouri S&T	
DDT 200	Production Design Drafting	4	MECH ENG 1720	Intro to Engineering Design	3
COM 105	Public Speaking	3	SPMS 1185	Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CSC 140	C++ Programming I	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
EGR 201	Engineering Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 205	Engineering Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
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.					
ENG 240 or ENG 241 or ENG 270 or ENG 271 or ENG 260 or HST 120* or HST 130* or ART 100 or MUS 105 or THR 101	Survey of English Literature I or Survey of English Literature II or Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or US History I: to 1865* or US History II: 1865-Present* or Art and Experience or Western Music Appreciation or Intro to Theater <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change <small>*Satisfies the State of Missouri government requirement.</small>	6
Behavioral and Social Sciences					
Select 6 hours from at least two specific disciplines to include PSYCH 1101.					
PSY 110	Intro to Psychology	3	PSYCH 1101	General Psychology Required	3
HST 105 or HST 106* or GRY 101 or PHL 101 or PLS 101 or ECO 275 or ECO 270 or Foreign Language	Ancient and Medieval World History or Modern World History* or World Geography or Intro to Philosophy or American Government and Politics or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	3	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHIL 1105 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 American Government*or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	3
Humanities, Arts, and Social Sciences					
Select 3 hours.					
ENG 102 or ENG 150	Composition II or Technical Writing	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		36	Group 2 Major Requirements		34
Group 1 Core Requirements		30	Group 1 Core Requirements		27
Total Hours		66			Total Hours*
<small>*S&amp;T advisor permission is required to transfer more than 61 credits toward the S&amp;T Engineering Management degree.</small>					

## Environmental Engineering Group 2 Major Requirements

<u>Ozarks Technical Community College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>	
DDT 200	Production Design Drafting	4	MECH ENG 1720	Intro to Engineering Design 3
ENG 102 or ENG 150 or COM 105	Composition II or Technical Writing or Public Speaking	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech 3 <small>Applies to degree as Gen Ed Communication requirement.</small>
PHY 110	Intro to Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology 3
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab 5
CHM 170	General Chemistry II	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) 3 <small>*CHEM 1510 is not a degree requirement, transfers as general elective credit.</small>
BIO 100 or BIO 160	Life Science or General Biology I	4	BIO SCI 1113, 1219*	General Biology (3) and Lab* (1) 3 <small>*The lab is not a degree requirement, transfers as general elective credit.</small>
EGR 201	Engineering Statics	3	CIV ENG 2200	Engineering Mechanics-Statics 3
EGR 205	Engineering Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics 2
<b>Humanities, Arts, and Social Sciences General Education Requirements</b> 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. <b>*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.</b>				
<b>Humanities and Fine Arts</b> Select 6 hours from at least two specific disciplines.				
ENG 240 or ENG 241 or ENG 270 or ENG 271 or ENG 260 or HST 120* or HST 130* or ART 100 or MUS 105 or THR 101	Survey of English Literature I or Survey of English Literature II or Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or <b>US History I: to 1865*</b> or <b>US History II: 1865-Present*</b> or Art and Experience or Western Music Appreciation or Intro to Theater <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or <b>HISTORY 1300*</b> or <b>HISTORY 1310*</b> or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or <b>American History to 1877*</b> or <b>American History Since 1877*</b> or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change <small>*Satisfies the State of Missouri government requirement.</small>
<b>Behavioral and Social Sciences</b> Select 6 hours from at least two specific disciplines to include HISTORY 1200				
<b>HST 106*</b>	<b>Modern World History*</b> <small>*Satisfies the State of Missouri Government requirement.</small>	3	<b>HISTORY 1200*</b>	<b>Modern Western Civilization*</b> <small>*Satisfies the State of Missouri Government requirement.</small> 3
PHL 101 or <b>PLS 101*</b> or PSY 110 or ECO 275 or ECO 270 or Foreign Language	Intro to Philosophy or <b>American Government and Politics*</b> or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	3	PHIL 1105 or <b>POL SCI 1200*</b> or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Self and World: Intro to Philosophy or <b>American Government*</b> or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small> 3
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives	
Group 2 Major Requirements		42	Group 2 Major Requirements	
Group 1 Core Requirements		30	Group 1 Core Requirements	
Total Hours		72	Total Hours*	
			64	

\*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

Ozarks Technical Community College			Semester	Missouri S&T	
DDT 200	Production Design Drafting	4	MECH ENG 1720	Intro to Engineering Design	3
ENG 150	Technical Writing	3	ENGLISH 3560	Technical Writing <small>Applies to degree as Gen Ed Communication requirement.</small>	3
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CSC 160 or CSC 210 or CSC 140*	Python Programming I (3) or Data Structures (4) or C++ Programming I (4)	3	CS 1500 or CS 1971, 1981	Computational Problem Solving or Intro to Programming Methodology and Lab	3
PHY 110	Intro to Geology	4	GEO ENG 1150 (GEOLOGY 1110)	Physical and Environmental Geology	3
EGR 201	Engineering Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 205	Engineering Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
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. <b>*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.</b>					
Humanities and Fine Arts Select 6 hours from at least two specific disciplines.					
ENG 240 or ENG 241 or ENG 270 or ENG 271 or ENG 260 or HST 120* or HST 130* or ART 100 or MUS 105 or THR 101	Survey of English Literature I or Survey of English Literature II or Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or <b>US History I: to 1865*</b> or <b>US History II: 1865-Present*</b> or Art and Experience or Western Music Appreciation or Intro to Theater <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or <b>HISTORY 1300*</b> or <b>HISTORY 1310*</b> or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or <b>American History to 1877*</b> or <b>American History Since 1877*</b> or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change <small>*Satisfies the State of Missouri government requirement.</small>	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
HST 105 or HST 106* or GRY 101 or PHL 101 or PLS 101 or PSY 110 or ECO 275 or ECO 270 or Foreign Language	Ancient and Medieval World History or <b>Modern World History*</b> or World Geography or Intro to Philosophy or American Government and Politics or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6	HISTORY 1100 or <b>HISTORY 1200*</b> or HISTORY 2110 or PHIL 1105 or <b>POL SCI 1200*</b> or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or <b>Modern Western Civilization*</b> or World Regional Geography or Self and World: Intro to Philosophy or <b>American Government*</b> or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	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		40	Group 2 Major Requirements		37
Group 1 Core Requirements		30	Group 1 Core Requirements		27
Total Hours		70			Total Hours*
<small>*S&amp;T advisor permission is required to transfer more than 65 credits toward the S&amp;T Geological Engineering degree.</small>					

## Mechanical Engineering Group 2 Major Requirements

Ozarks Technical Community College			Semester	Missouri S&T	
DDT 200	Production Design Drafting	4	MECH ENG 1720	Intro to Engineering Design	3
ENG 102 or ENG 150 or COM 105	Composition II or Technical Writing or Public Speaking	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310*, 1319	General Chemistry I and Lab <small>*CHEM 1310 will be substituted for CHEM 1305.</small>	5
CSC 140	C++ Programming	4	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
EGR 201	Engineering Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
MTH 230	Linear Algebra	3	MATH 3108	Linear Algebra I <small>Satisfies the Advanced Math/Statistics elective requirement.</small>	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.					
ENG 240 or ENG 241 or ENG 270 or ENG 271 or ENG 260 or HST 120* or HST 130* or ART 100 or MUS 105 or THR 101	Survey of English Literature I or Survey of English Literature II or Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or US History I: to 1865* or US History II: 1865-Present* or Art and Experience or Western Music Appreciation or Intro to Theater <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change <small>*Satisfies the State of Missouri government requirement.</small>	6
Behavioral and Social Sciences					
Select 6 hours from at least two specific disciplines.					
HST 105 or HST 106* or GRY 101 or PHL 101 or PLS 101 or PSY 110 or ECO 275 or ECO 270 or Foreign Language	Ancient and Medieval World History or Modern World History* or World Geography or Intro to Philosophy or American Government and Politics or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHIL 1105 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 American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	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		37	Group 2 Major Requirements		35
Group 1 Core Requirements		30	Group 1 Core Requirements		27
Total Hours		67			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

Ozarks Technical Community College			Semester	Missouri S&T	
DDT 200	Production Design Drafting	4	MECH ENG 1720	Intro to Engineering Design	3
ENG 102 or ENG 150 or COM 105	Composition II or Technical Writing or Public Speaking	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3
EGR 201	Engineering Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CHM 170	General Chemistry II	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not a degree requirement, transfers as general elective credit.</small>	3
CHM 242	Organic Chemistry I	5	CHEM 2210, 2219*	Organic Chemistry I and Lab* <small>*The lab is not an S&amp;T degree requirement, transfers as general electric credit.</small>	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.					
ENG 240 or ENG 241 or ENG 270 or ENG 271 or ENG 260 or HST 120* or HST 130* or ART 100 or MUS 105 or THR 101	Survey of English Literature I or Survey of English Literature II or Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or US History I: to 1865* or US History II: 1865-Present* or Art and Experience or Western Music Appreciation or Intro to Theater <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change <small>*Satisfies the State of Missouri government requirement.</small>	6
Behavioral and Social Sciences					
Select 6 hours from at least two specific disciplines.					
HST 105 or HST 106* or GRY 101 or PHL 101 or PLS 101 or PSY 110 or ECO 275 or ECO 270 or Foreign Language	Ancient and Medieval World History or Modern World History* or World Geography or Intro to Philosophy or American Government and Politics or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHIL 1105 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 American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	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		42	Group 2 Major Requirements		38
Group 1 Core Requirements		30	Group 1 Core Requirements		27
Total Hours		72			Total Hours*
*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

Ozarks Technical Community College		Semester	Missouri S&T		
DDT 200	Production Design Drafting	4	MECH ENG 1720	Intro to Engineering Design	3
ENG 102 or ENG 150 or COM 105	Composition II or Technical Writing or Public Speaking	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
EGR 201	Engineering Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 205	Engineering Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
PHY 110	Intro to Geology	4	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.					
ENG 240 or ENG 241 or ENG 270 or ENG 271 or ENG 260 or HST 120* or HST 130* or ART 100 or MUS 105 or THR 101	Survey of English Literature I or Survey of English Literature II or Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or US History I: to 1865* or US History II: 1865-Present* or Art and Experience or Western Music Appreciation or Intro to Theater <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change <small>*Satisfies the State of Missouri government requirement.</small>	6
Behavioral and Social Sciences					
Select 6 hours from at least two specific disciplines.					
HST 105 or HST 106* or GRY 101 or PHL 101 or PLS 101 or PSY 110 or ECO 275 or ECO 270 or Foreign Language	Ancient and Medieval World History or Modern World History* or World Geography or Intro to Philosophy or American Government and Politics or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHIL 1105 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 American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6
No free electives applied to the degree.		0	Maximum Free Electives		0
Group 2 Major Requirements		34	Group 2 Major Requirements		31
Group 1 Core Requirements		30	Group 1 Core Requirements		27
Total Hours		64	Total Hours*		58
<small>*S&amp;T advisor permission is required to transfer more than 68 credits toward the S&amp;T Mining Engineering degree.</small>					

## Nuclear Engineering Group 2 Major Requirements

<b>Ozarks Technical Community College</b>		<b>Semester</b>	<b>Missouri S&amp;T</b>	
DDT 200	Production Design Drafting	4	MECH ENG 1720	Intro to Engineering Design 3
ENG 102 or ENG 150 or COM 105	Composition II or Technical Writing or Public Speaking	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab 5
CSC 140	C++ Programming	4	CS 1971, 1981	Intro to Programming Method and Lab (C++) 3
MTH 230 or MTH 215	Linear Algebra or Algebraic Structures	3	MATH 3108 or MATH 3109	Linear Algebra or Foundations of Mathematics 3
EGR 201	Engineering Statics	3	CIV ENG 2200	Engineering Mechanics-Statics 3
<b>Humanities, Arts, and Social Sciences General Education Requirements</b> 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. <b>*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.</b>				
<b>Humanities and Fine Arts</b> Select 6 hours from at least two specific disciplines.				
ENG 240 or ENG 241 or ENG 270 or ENG 271 or ENG 260 or HST 120* or HST 130* or ART 100 or MUS 105 or THR 101	Survey of English Literature I or Survey of English Literature II or Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or US History I: to 1865* or US History II: 1865-Present* or Art and Experience or Western Music Appreciation or Intro to Theater <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change <small>*Satisfies the State of Missouri government requirement.</small>
<b>Behavioral and Social Sciences</b> Select 6 hours from at least two specific disciplines.				
ECO 275 or ECO 270	Principles of Microeconomics or Principles of Macroeconomics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics 3
HST 105 or HST 106* or GRY 101 or PHL 101 or PLS 101 or PSY 110 or Foreign Language	Ancient and Medieval World History or Modern World History* or World Geography or Intro to Philosophy or American Government and Politics or Intro to Psychology or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHIL 1105 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 American Government* or General Psychology or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>
<b>Humanities, Arts, and Social Sciences</b> 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	
Group 2 Major Requirements		40	Group 2 Major Requirements	
Group 1 Core Requirements		30	Group 1 Core Requirements	
Total Hours		70	Total Hours*	
			62	

\*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

Ozarks Technical Community College			Semester	Missouri S&T	
ENG 102 or ENG 150 or COM 105	Composition II or Technical Writing or Public Speaking	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech <small>Applies to degree as Gen Ed Communication requirement.</small>	3
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	General Chemistry I and Lab	5
CSC 160 or CSC 210	Python Programming I (3) or Data Structures (4)	3	COMP SCI 1500	Computational Problem Solving	3
PHY 110	Intro to Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
EGR 201	Engineering Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 205	Engineering Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
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.					
ENG 240 or ENG 241 or ENG 270 or ENG 271 or ENG 260 or HST 120* or HST 130* or ART 100 or MUS 105 or THR 101	Survey of English Literature I or Survey of English Literature II or Survey of American Literature I or Survey of American Literature II or Survey of World Literature I or US History I: to 1865* or US History II: 1865-Present* or Art and Experience or Western Music Appreciation or Intro to Theater <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change <small>*Satisfies the State of Missouri government requirement.</small>	6
Behavioral and Social Sciences					
Select 6 hours from at least two specific disciplines.					
HST 105 or HST 106* or GRY 101 or PHL 101 or PLS 101 or PSY 110 or ECO 275 or ECO 270 or Foreign Language	Ancient and Medieval World History or Modern World History* or World Geography or Intro to Philosophy or American Government and Politics or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHIL 1105 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 American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	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		36	Group 2 Major Requirements		34
Group 1 Core Requirements		30	Group 1 Core Requirements		27
Total Hours		66	Total Hours*		61
<small>*S&amp;T advisor permission is required to transfer more than 69 credits toward the S&amp;T Petroleum Engineering degree.</small>					