## 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	Se	emester	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 20			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, transfer@mst.edu, or 800-522-0938

	Ozarks Technical Community College		<u>Semester</u>	Missouri S&T	
DDT 200 ENG 102 or ENG 150 or COM 105	Production Design Drafting  Composition II or  Technical Writing or  Public Speaking	3	MECH ENG 1720 ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Intro to Engineering Design Writing and Research or Technical Writing or Principles of Speech	3
CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310*, 1319	Apples to degree as Gen Ed Communication requirement.  General Chemistry I and Lab  'CHEM 1310 will be substituted for CHEM 1305.	5
CSC 140 EGR 201	C++ Programming I Engineering Statics	3	CS 1971, 1981 CIV ENG 2200	Intro to Programming Method and Lab (C++) Engineering Mechanics-Statics	3
MTH 230	Linear Algebra	3	MATH 3108	Linear Algebra I Satisfies the Advanced Math/Comp Sci elective requirement.	3
PHL 105	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
	6 hours Huma	nities and Fine oral and Social RY 1200, 1300,	each group below, select 15 hours to Arts from at least two specific disciplir Sciences from at least two specific dis , 1310, or POL SCI 1200 to satisfy th anities and Fine Arts	es and ciplines.	
	Sele		m 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 II 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: 1800 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change *Satisfies the State of Missouri government requirement.	6
	Sole		ral and Social Sciences m 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
			, Arts, and Social Sciences Select 3 hours.		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.		HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
	No free electives applied to the degree. Group 2 Major Requirements Group 1 Core Requirements Tot	0 39 30 al Hours 69		Maximum Free Electives Group 2 Major Requirements Group 1 Core Requirements  Total Hours*  *S&T advisor permission is required to transfer more than 68 credits toward the \$&T	0 38 27 65

	Architectural En	gineer	ing Gro	oup 2 Major	Requirements	
	Ozarks Technical Community College		Semeste	r	Missouri S&T	
DDT 200	Production Design Drafting	2	1	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	3	ENGLISH 1160 or ENGLISH 3560 or SPMS 1185	Writing and Research or Technical Writing or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHM 160, 161	General Chemistry I and Lab	5	5	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
EGR 201	Engineering Statics	3	3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 205	Engineering Dynamics	3	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
PHY 110	Intro to Geology	2	ļ	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
	the control of the co			eneral Education Requ		
	6 hours He	umanities and F navioral and Soc	ine Arts from at l	elow, select 12 hours to in least two specific discipline m at least two specific disc N. SCI 1200 to satisfy the	es and iplines.	
	At load one course must be selected from the		manities and F	•	oute of missouri government requirement.	
	5			o 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 II 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.	€	3	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1221 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
			ioral and Soci			
		from at least t	wo specific dis	ciplines to include HISTC		
HST 106*	Modern World History*  *Satisfies the State of Missouri Government requirement.	3	3	HISTORY 1200*	Modern Western Civilization*  *Satisfies the State of Missouri Government requirement.	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 "Satisfies the State of Missouri government requirement.	3	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  *Satisfies the State of Missouri government requirement.	3
	No free electives applied to the degree.	(	)		Maximum Free Electives	0
	Group 2 Major Requirements Group 1 Core Requirements	3 3 Total Hours 6	4 0		Group 2 Major Requirements Group 1 Core Requirements  Total Hours*  *S&T advisor permission is required to transfer more than 69 credits toward the S&T Architectural Engineering degree.	31 27

				_	-Biomanufa equirements	- The state of the	
	Ozarks Technical Community College		5	Semester		Missouri S&T	
COM 105	Public Speaking	3	3		SP&MS 1185	Principles of Speech	3
CHM 160, 161	General Chemistry I and Lab	Ę	5		CHEM 1310, 1319	Applies to degree as Gen Ed Communication requirement.  General Chemistry I and Lab	5
CHM 170, 171	General Chemistry II and Lab	Ę	5		CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2)	3
CHM 242	Organic Chemistry I		3		CHEM 2210, 2219	*CHEM 1510 is not a degree requirement, transfers as general elective credit.  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)	2	1		CHEM 2220, 2229 or BIO SCI 1113, 1219 or BIO SCI 2223	Organic Chemistry II and Lab or General Biology and Lab or General Genetics Applies to degree as Track Elective.	4
CSC 160 or CSC 210 or CSC 140*	Python Programming I (3) or Data Structures (4) or C++ Programming I (4)	3	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
	6 hour	s Humanities and F Behavioral and Soc HISTORY 1200, 13	ine Ar cial Sc 00, 13	rts from at le ciences fron	•	and lines.	
					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 II or Survey of American Literature II or Survey of World Literature II or Survey of World Literature I or US History II: 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.		3		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
		Behav			I Sciences		
HST 105 or	Ancient and Medieval World History or		Se	elect 3 hou	s. HISTORY 1100 or	Early Western Civilization or	
HST 105* or GRY 101 or PLS 101 or PSY 110 or ECO 275 or ECO 270 or Foreign Language	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	3		HISTORY 1200° or HISTORY 2110 or POL SCI 1200° or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	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
					ocial Sciences		
ENG150	Technical Writing		NGLIS 3	SH 3560 re	equired. ENGLISH 3560	Technical Writing	3
2.13700	No free electives applied to the degree.	(			2.1321011 0000	Maximum Free Electives	0
	No tree electrives applied to the degree. Group 2 Major Requirements Group 1 Core Requirements	3	8			Maximum Free Electives Group 2 Major Requirements Group 1 Core Requirements  Total Hours*  *S&T advisor permission is required to transfer more than 69 credit hours toward the degree.	34 27

	Biome	dical En	gineeı	ring-Biomate	rials	
			$\sim$	equirements		
	Ozarks Technical Community College		Semeste	er	Missouri S&T	
COM 105	Public Speaking	3		SP&MS 1185	Principles of Speech	3
CHM 160, 161	General Chemistry I and Lab	5		CHEM 1310, 1319	Applies to degree as Gen Ed Communication requirement.  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)	3
CHM 242	Organic Chemistry I	6		CHEM 2210, 2219*	*CHEM 1510 is not a degree requirement, transfers as general elective credit.  Organic Chemistry I and Lab*	4
CHM 243	Organic Chemistry II	6		CHEM 2220, 2229*	*CHEM 2219 Lab applies to the degree as a Track Elective (non-engineering).  Organic Chemistry II and Lab*	4
BIO 101 or	Life Science or				CHEM 2229 Lab applies to the degree as a Track Elective (non-engineering).  General Biology* and Lab*	
BIO 160	General Biology I	4		BIO SCI 1113*, 1219*	*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  General Education Requirements	Engineering Mechanics-Statics	3
		Sehavioral and Soci ISTORY 1200, 130	al Sciences fro 0, 1310, or PC	•	olines.	
			nanities and	Fine Arts  wo 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 1310* 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: 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 'statisfies the State of Missourj government requirement.	6
		Behavi		cial Sciences		
			Select 3 ho			
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
				Social Sciences		
ENG150	Technical Writing	EN 3	GLISH 3560	required. 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 Total Hours 77			Group 1 Core Requirements  Total Hour  *S&T advisor permission is required to transfer more than 69 credits toward the S&T  Biomedical Engineering degree.	27 s* 68

	Ceramic Engi	neering	Group	2 Major Re	equirements	
	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 Apples to degree as Gen Ed Communication requirement.	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 General Chemistry II (3) and Qualitative Analysis (2)	5
CHM 170	General Chemistry II	4		CHEM 1320, 1510*	*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 (3) and Lab* (1) Satisfies the advanced chemistry elective requirement. *The lab is not a degree requirement, transfers as general elective credit.	3
	Humanities, A	Arts, and Socia	l Sciences Ge	eneral Education Requ		
	6 hours Hu	imanities and Fin navioral and Socia	e Arts from at le al Sciences fron	elow, select 15 hours to in east two specific discipline on at least two specific disc SCI 1200 to satisfy the	es and ciplines.	
	At least one course must be selected from tho		anities and F	•	otate of missouri government requirement.	
	S			specific disciplines.		
ENG 240 or ENG 241 or ENG 270 or ENG 270 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 1222 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
	Catolice the Cate of Micocal government requirement	Behavio	oral and Socia	al Sciences	Cationic the Gate of misseat government requirement.	
	s			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	s, Arts, and Se Select 3 hou	ocial Sciences rs.		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any hist music, theater, English and technical communication philosophy, political science, psychology, economics etymology, or foreign language.	l, 3		HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
	No free electives applied to the degree.	0			Maximum Free Electives	0
	Group 2 Major Requirements Group 1 Core Requirements	40 30 Total Hours 70			Group 2 Major Requirements Group 1 Core Requirements  Total Hours*  *S&T advisor permission is required to transfer more than 68 credits toward the S&T Ceramic Engineering degree.	35 27 62

	Chemical Enginee		ngineering or	poring Emphasis	
			r Requirements	•	
	Ozarks Technical Community College		ester	Missouri S&T	
DDT 200	Production Design Drafting	4	MECH ENG 1720	Intro to Engineering Design	3
	Public Speaking	3	SP&MS 1185	Principles of Speech	3
COM 105 CHM 160, 161	General Chemistry I and Lab	5	CHEM 1310, 1319	Applies to degree as Gen Ed Communication requirement.  General Chemistry I and Lab	5
	•			General Chemistry II (3) and Qualitative Analysis* (2)	
CHM 170, 171	General Chemistry II and Lab	5	CHEM 1320, 1510*	*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
000 140	0 0 ( )	Arts, and Social Scien	ces General Education Requ		
	6 hours h	Humanities and Fine Arts freehavioral and Social Science	roup below, select 15 hours to in om at least two specific discipline ses from at least two specific disc or POL SCI 1200 to satisfy the	s and iplines.	
		Humanities	and Fine Arts		
		Select 6 hours from at le	ast 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 II 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 1223 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
			I Social Sciences		
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.	Select 6 hours from at le	ast two specific disciplines.  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
		ENGLISH 3	and Social Sciences 3560 required.		
ENG150	Technical Writing	3	ENGLISH 3560	Technical Writing	3
	No free electives applied to the degree. Group 2 Major Requirements Group 1 Core Requirements	0 47 30 Total Hours 77		Maximum Free Electives Group 2 Major Requirements Group 1 Core Requirements  Total Hour:  *SAT advisor permission is required to transfer more than 68 credits toward the SAT Chemical Engineering degree.	0 40 27 s* 67

	Civil Engine	ering Gro	oup 2 Major Requ	uirements	
	Ozarks Technical Community College	S	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 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
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
	From the of 6 hours Hu	options listed in eac manities and Fine Ar avioral and Social So ORY 1200, 1300, 13	ciences General Education Requir th group below, select 15 hours to ince ts from at least two specific disciplines ieinces from at least two specific discip 110, or POL SCI 1200 to satisfy the S ties and Fine Arts	lude and Jines.	
	S		at least two specific disciplines.		
ENG 240 or ENG 241 or ENG 270 or ENG 270 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 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		
		elect 6 hours from a	at least two specific disciplines.		
HST 105 or HST 106* or GRY 101 or PHL 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
			rts, and Social Sciences elect 3 hours.		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any histo music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.		HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
	No free electives applied to the degree.	0		Maximum Free Electives	0
	Group 2 Major Requirements Group 1 Core Requirements	37 30 otal Hours 67		Group 2 Major Requirements Group 1 Core Requirements  Total Hours*  *S&T advisor permission is required to transfer more than 69 credits toward the S&T Civil Engineering degree.	34 27 61

	Computer En	gineerin	g Grou	p 2 Major Re	equirements	
	Ozarks Technical Community College		Semeste	r	Missouri S&T	
COM 105	Public Speaking	3		<u>L</u> 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* *Will be substituted for COMP SCI 1500.	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 Satisfies a required math elective.	3
	From the first of	ne options listed in Humanities and Fi Behavioral and Soc	n each group b ne Arts from at l ial Sciences fro	eneral Education Requirelow, select 15 hours to incleast two specific disciplines mat least two specific disciplines L SCI 1200 to satisfy the S	ude and ines.	
			nanities and F			
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 II 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	rom at least tw	os pecific disciplines. ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1221 or ENGLISH 1221 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1150  al Sciences	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature: 1865 to Present or Morld 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
				o 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
		Humanitie	es, Arts, and S Select 3 hou	Social Sciences		
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 Group 2 Major Requirements Group 1 Core Requirements	3: 34 36 Total Hours 6:	5	Electives	Maximum Free Electives Group 2 Major Requirements Group 1 Core Requirements  Total Hours*  *S&T advisor permission is required to transfer more than 68 credits toward the S&T Computer Engineering degree.	3 35 27 * 62

	Electrical Eng	gineering	Group	o 2 Major Ro	equirements	
	Ozarks Technical Community College		Semester		Missouri S&T	
DDT 200	Production Design Drafting	4	Gomeoter	MECH ENG 1720	Intro to Engineering Design	3
COM 105	Public Speaking	3		SPMS 1185	Principles of Speech	3
CHM 160, 161	General Chemistry I and Lab	5		CHEM 1310, 1319	Applies to degree as Gen Ed Communication requirement.  General Chemistry I and Lab	5
CSC 160 or	Python Programming I (3) or	3			Computational Problem Solving or	3
CSC 210 or CSC 140*	Data Structures (4) or C++ Programming I (4)	3		CS 1500 or CS 1971,1981*	Intro to Programming Methodology and Lab* "Will be substituted for CS 1500.	3
EGR 204 or	Statics and Dynamics (3) or			MECH ENG 2340 or	Statics and Dynamics or	
CHM 242 or	Organic Chemistry I (5) or	3		CHEM 2210 or	Organic Chemistry I or	3
BIO 250	Genetics (3)			BIO SCI 2223	General Genetics	
MTH 230	Linear Algebra	3		MATH 3108 eneral Education Regul	Linear Algebra	3
	6 hours	Humanities and Fine ehavioral and Social	Arts from at le Sciences fron	elow, select 15 hours to in east two specific discipline n at least two specific disci . SCI 1200 to satisfy the	s and iplines.	
		Huma	anities and F	ine Arts		
		Select 6 hours fro	m 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  HST 105 or HST 106* or GRY 101 or PHL 101 or PSY 110 or ESCO 275 or	Survey of English Literature I or Survey of American Literature II or Survey of American Literature II or Survey of American Literature II or Survey of American Literature I or Survey of World Literature I or US History II: 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.  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		<b>ral and Soci</b> a m at least two	o specific disciplines. HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHIL 1105 or POL SCI 1200* or PSYCH 1101 or	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1800 to 1865 or American Literature: 1805 to Present or World Literature: 1865 to Present or World Literature: 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.  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 Self self with the State of Missouri government* or Self self-self-self-self-self-self-self-self-	6
ECO 275 or ECO 270 or Foreign Language	Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.			ECON 1100 or ECON 1200 or Foreign Language	Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	
		Humanities	, Arts, and Select 3 hour	ocial Sciences		
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 Total Hours 72			Group 1 Core Requirements  Total Hours'  *S&T advisor permission is required to transfer more than 68 credits toward the S&T Electrical Engineering degree.	27 * 68

	Engineering Ma	anagen	nen	it Group 2 Major R	equirements	
	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 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 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 Sciences General Education Require	Engineering Mechanics-Dynamics	2
	From the 6 hours	ne options lister Humanities and ehavioral and S ISTORY 1200,	d in ea Fine A Social S 1300, 1	ich group below, select 15 hours to inclu Arts from at least two specific disciplines a Sciences from at least two specific disciplin 1310, or POL SCI 1200 to satisfy the Sta	de ind nes.	
				ities and Fine Arts 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 1221 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
	Select 6 hr			Il and Social Sciences specific disciplines to include PSYCH	1101	
PSY 110	Intro to Psychology	aro nom at loc	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 Philiosophy or American Government and Politics or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language "Satisfies the State of Missouri government requirement.		3	HISTORY 1100 or 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 'Sattifies the State of Missouri government requirement.	3
		Humani		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	Total Hours	30 66		Group 1 Core Requirements  Total Hours  *S&T advisor permission is required to transfer more than 61 credits toward the S&T Engineering Management degree.	27 * 61

	Environmental E	ngineeri	ng Group 2 Majoı	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 Applies to degree as Gen Ed Communication requirement.	3
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)  *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3
BIO 100 or BIO 160	Life Science or General Biology I	4	BIO SCI 1113, 1219*	General Biology (3) and Lab* (1)  *The lab is not a degree requirement, transfers as general elective credit.	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
	· · · · ·	Arts, and Social	Sciences General Education Regu		
	6 hours H	umanities and Fine havioral and Social	each group below, select 12 hours to in Arts from at least two specific discipline Sciences from at least two specific disc 1310, or POL SCI 1200 to satisfy the	s and iplines.	
		Huma	nities and Fine Arts		
	\$	Select 6 hours from	m 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	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 II: 1865-Present* or US History II: 1865-Present* or	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or	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: 186jinnings to the Renaissance or American History to 1877* or American History Since 1877* or	6
ART 100 or MUS 105 or THR 101	Art and Experience or Western Music Appreciation or Intro to Theater *Satisfies the State of Missouri government requirement.		ART 1180 or MUSIC 1150 or THEATRE 1150	Art Appreciation or Music Understanding and Appreciation or Theatre for Social Change *Satisfies the State of Missouri government requirement.	
	0.1.101		al and Social Sciences	DDV 4000	
HST 106*	Modern World History*	s from at least two	o specific disciplines to include HISTO  HISTORY 1200*	Modern Western Civilization*	3
PHL 101 or PLS 101* or PSY 110 or ECO 275 or ECO 270 or Foreign Language	"Satisfles the State of Missouri Government requirement.  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  "Satisfles the State of Missouri government requirement.	3	PHIL 1105 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	"Satisfies the State of Missouri Government requirement.  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.	3
	No free electives applied to the degree.	0		Maximum Free Electives	0
	Group 2 Major Requirements Group 1 Core Requirements	42 30 Total Hours 72		Group 2 Major Requirements Group 1 Core Requirements  Total Hours'  *\$8T advisor permission is required to transfer more than 69 credits toward the \$8T Environmental Engineering degree.	37 27

	Geological Eng	gineerin	g Grou	ıp 2 Major F	Requirements	
	Ozarks Technical Community College		Semeste	r	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 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		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  eneral Education Requ	Engineering Mechanics-Dynamics	2
	6 hours H	umanities and Fi havioral and Soc TORY 1200, 130	ne Arts from at I ial Sciences fror	-	es and ciplines.	
	•			o 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 II 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 1221 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: 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
			oral and Soci			
		Select 6 hours f	rom at least tw	o specific disciplines.		
HST 105 or HST 106* or GRY 101 or PHL 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
		Humanitie	es, Arts, and S Select 3 hou	ocial Sciences rs.		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any his music, theater, English and technical communication philosophy, political science, psychology, economics etymology, or foreign language.	n, a		HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
	No free electives applied to the degree.	0			Maximum Free Electives	0
	Group 2 Major Requirements Group 1 Core Requirements	40 30 Total Hours 70	)		Group 2 Major Requirements Group 1 Core Requirements  Total Hours*  *S&T advisor permission is required to transfer more than 65 credits toward the S&T Geological Engineering degree.	37 27 64

	Mechanical Eng	gineeri	ng Gr	oup 2 Major R	Requirements	
	Ozarks Technical Community College		Seme	ster	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 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 *CHEM 1310 will be substituted for CHEM 1305.	5
CSC 140 EGR 201	C++ Programming Engineering Statics		4 3	CS 1971, 1981 CIV ENG 2200	Intro to Programming Method and Lab (C++) Engineering Mechanics-Statics	3
MTH 230	Linear Algebra		3	MATH 3108	Linear Algebra I Satisfies the Advanced Math/Statistics elective requirement.	3
	From the 6 hours Hu	options listed umanities and navioral and So	l in each grou Fine Arts fron ocial Sciences	es General Education Requi up below, select 15 hours to inc n at least two specific disciplines s from at least two specific discip r POL SCI 1200 to satisfy the S	clude s and plines.	
				nd Fine Arts		
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 II or Survey of American Literature II or Survey of World Literature II or Survey of World Literature I or US History I: 10 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.	elect o flours	6	ENGLISH 1211 or ENGLISH 1211 or ENGLISH 1212 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
		Beha	vioral and S	Social Sciences		
	S	Select 6 hours	from at leas	st two specific disciplines.		
HST 105 or HST 106* or GRY 101 or PHL 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 200° 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
		Humanit	t <b>ies, Arts, ar</b> Select 3	nd Social Sciences hours.		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any hist music, theater, English and technical communication philosophy, political science, psychology, economics etymology, or foreign language.	1,	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
	No free electives applied to the degree. Group 2 Major Requirements Group 1 Core Requirements		0 37 30 67		Maximum Free Electives Group 2 Major Requirements Group 1 Core Requirements  Total Hours*  *S&T advisor permission is required to transfer more than 68 credits toward the S&T Mechanical Engineering degree.	0 35 27 62

	Metallurgical Eng	jineerir	ng Gro	oup 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 Applies to degree as Gen Ed Communication requirement.	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) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3
CHM 242	Organic Chemistry I	5		CHEM 2210, 2219*	Organic Chemistry I and Lab*  *The lab is not an S&T degree requirement, transfers as general electric credit.	3
	From the o 6 hours Hur	ptions listed in manities and Fina avioral and Socia ORY 1200, 1300	each group be e Arts from at le Il Sciences fron I, 1310, or POI	•	clude s and iplines.	
	e,		anities and F	ine Arts  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 1222 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
		Behavio	ral and Socia	al Sciences		
	Se	elect 6 hours fro	m 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	<b>5, Arts, and S</b> Select 3 hou	ocial Sciences		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any histo music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	ry, art, 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 T	otal Hours 72			Group 1 Core Requirements  Total Hours*  *S&T advisor permission is required to transfer more than 68 credits toward the S&T Metallurgical Engineering degree.	27 65

	Mining Engir	neering	j G	roup 2 Major	Requirements	
	Ozarks Technical Community College			Semester	Missouri S&T	
DDT 200	Production Design Drafting		4	MECH ENG 172	20 Intro to Engineering Design	3
ENG 102 or ENG 150 or COM 105	Composition II or Technical Writing or Public Speaking		3	ENGLISH 1160 0 ENGLISH 3560 0 SPMS 1185		3
CHM 160, 161	General Chemistry I and Lab		5	CHEM 1310, 137		5
EGR 201	Engineering Statics		3	CIV ENG 2200	Engineering Mechanics-Statics	3
EGR 205	Engineering Dynamics		3	MECH ENG 235	50 Engineering Mechanics-Dynamics	2
PHY 110	Intro to Geology		4	GEOLOGY 1110 (GEO ENG 1150	Physical and Environmental Geology	3
	Humanities,	Arts, and So	cial S	ciences General Education	n Requirements	
	6 hours H 6 hours Be	lumanities and havioral and So	Fine A	ch group below, select 12 hours from at least two specific di ciences from at least two spec 310, or POL SCI 1200 to satis	disciplines and	
		H	uman	ities and Fine Arts		
		Select 6 hours	from	at least two specific disciplin	ines.	
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 II 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. ENGLISH 1221. ENGLISH 1221. ENGLISH 1222. ENGLISH 1231. HISTORY 1300* HISTORY 1310* ART 1180 or MUSIC 1150 or THEATRE 1150	or British Literature II: 1800 to Present or American Literature: 1805 to 1865 or or American Literature: 1865 to Present or or World Literature I: Beginnings to the Renaissance or * or American History to 1877* or * or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation or	6
				I and Social Sciences at least two specific disciplir	ines	
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.	25.50. 0 115013	6	HISTORY 1100 · HISTORY 1200* HISTORY 2110 · PHIL 1105 or POL SCI 1200* · PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Languag	or Early Western Civilization or  * or Modern Western Civilization* or or World Regional Geography or Self and World: Intro to Philosophy or or American Government*or r General Psychology or Principles of Microeconomics or Principles of Macroeconomics or	6
	No free electives applied to the degree.		0		Maximum Free Electives	0
	Group 2 Major Requirements Group 1 Core Requirements		34 30 64		Group 2 Major Requirements 3 Group 1 Core Requirements 2	31 27 58

	Nuclear Engi	neering	g Group	2 Major Re	equirements	
	Ozarks Technical Community College		Semeste	er	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 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 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
	From the 6 hours H	options listed umanities and F navioral and So	in each group be ine Arts from at cial Sciences fro	pelow, select 15 hours to in least two specific discipling or at least two specific discipling or at least two specific discipling	nclude es and ciplines.	
	"At least one course must be selected from HIS		manities and		State of Missouri government requirement.	
	9			vo specific disciplines.		
ENG 240 or ENG 241 or ENG 270 or ENG 270 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 II or Survey of American Literature II or Survey of World Literature I or US History I: to 1865- or US History I: 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 1221 or ENGLISH 1222 or ENGLISH 1231 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 Missourl government requirement.	6
			vioral and Soc			
E00.075		Select 6 hours	from at least tw	vo specific disciplines.	Debatishes of Missessessesses	
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 *Satisfies the State of Missouri government requirement.		6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHIL 1105or 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  *Satisfies the State of Missouri government requirement.	3
		Humanit	es, Arts, and S	Social Sciences		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any his music, theater, English and technical communication philosophy, political science, psychology, economics etymology, or foreign language.	١,	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
	Maximum Free Electives		0		Maximum Free Electives	0
	Group 2 Major Requirements Group 1 Core Requirements		10 30 70		Group 2 Major Requirements  Group 1 Core Requirements  Total Hours*  *S&T advisor permission is required to transfer more than 69 credits toward the S&T  Nuclear Engineering degree.	35 27 62

	Petroleum Eng	ineerin	g Grou	p 2 Major R	equirements	
	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 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	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
	6 hours Hu	umanities and Finavioral and Soc TORY 1200, 130	ne Arts from at le ial Sciences from 0, 1310, or POI		es and iplines.	
	c		nanities and F	ne Arts 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 II or Survey of American Literature II or Survey of World Literature II 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 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
	_		oral and Socia			
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.	Select 6 hours f	om at least two	o specific disciplines. HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHIL 1105 or POL SCI 1200* or PSVCH 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
		Humanitie	s, Arts, and S Select 3 hou	ocial Sciences rs.		
HASS Elective	Humanities, Arts, Social Sciences Elective: Any hist music, theater, English and technical communication philosophy, political science, psychology, economics etymology, or foreign language.	١, ء		HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
	No free electives applied to the degree. Group 2 Major Requirements Group 1 Core Requirements	0 36 30 Total Hours 66	; )		Maximum Free Electives Group 2 Major Requirements Group 1 Core Requirements  Total Hours*  *S&T advisor permission is required to transfer more than 69 credits toward the S&T Petroleum Engineering degree.	0 34 27 61