

## North Central Missouri College — Missouri S&T

### General Engineering

Transfer Guide Effective as of Fall 2024

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

## 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.

<u>North Central Missouri College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
MT 150 and	Geometry and Calculus I and	10	MATH 1214 and	Calculus for Engineers I and	8
MT 250	Geometry and Calculus II		MATH 1215	Calculus for Engineers II	
MT 260	Geometry and Calculus III	5	MATH 2222	Calculus III	Grade of C or better is required.
PS 210	General Physics I	5	PHYSICS 1135	Engineering Physics I	Grade of C or better is required.
PS 212	General Physics II	5	PHYSICS 2135	Engineering Physics II	Grade of C or better is required.
CH 110	General Chemistry I	5	CHEM 1310, 1319	General Chemistry I and Lab	5
EN 101	English I	3	ENGLISH 1120	Exposition and Argumentation	3
EC 252 or	Microeconomics or	3	ECON 1100 or	Principles of Microeconomics or	3
EC 253	Macroeconomics		ECON 1200	Principles of Macroeconomics	
Total Hours		36			Total Hours
					31

## 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/Biomaterials 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.

**Humanities/Social Science (HSS) Electives:** HSS electives may include any art, English and technical communication, etymology, foreign language, music, philosophy, speech and media studies, or theatre. Your campus may have additional acceptable options. Consult with your advisor or email [transfer@mst.edu](mailto:transfer@mst.edu) with questions. See Missouri S&T online catalog at <https://catalog.mst.edu/undergraduate/degreeprogramsandcourses/> for more information.

## Aerospace Engineering Group 2 Major Requirements

<u>North Central Missouri College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>	
HI 102 or HI 103 or HI 104 or PL 216	Western Civilization Since 1700 or American History to 1877 or American History since 1877 or National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government
EN 102 or SP 175	English II or Speech Communications	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech
IT 243	C++ Programming	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)
	Literature Elective	3		Literature Elective
PH 101	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
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives
	Group 2 Major Requirements	15		Group 2 Major Requirements
	Group 1 Core Requirements	36		Group 1 Core Requirements
	Total Hours	51		Total Hours*
				46

\*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

<u>North Central Missouri College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>	
HI 102* (or HI 103 or HI 104)	Western Civilization Since 1700* or (American History to 1877 or American History since 1877) <small>*HI 102 is preferred; 103 or 104 will also be accepted.</small>	3	HISTORY 1200* (or HISTORY 1300 or HISTORY 1310)	Modern Western Civilization* (or American History to 1877 or American History since 1877) <small>*HISTORY 1200 is preferred; 1300 or 1310 will also be accepted.</small>
Humanities or Social Science or Communication	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language or one communication course from this list: EN 102 or SP 175.	3	Humanities or Social Science or Communication	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language or one communication course from this list: ENGLISH 1160, 1600, 3560 or SPMS 1185.
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives
	Group 2 Major Requirements	6		Group 2 Major Requirements
	Group 1 Core Requirements	36		Group 1 Core Requirements
	Total Hours	42		Total Hours*
				37

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

## Biomedical Engineering-Biomanufacturing Group 2 Major Requirements

<u>North Central Missouri College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>	
SP 175	Speech Communications	3	SP&MS 1185	Principles of Speech
HI 102 or HI 103 or HI 104 or PL 216	Western Civilization Since 1700 or American History to 1877 or American History since 1877 or National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government
CH 112	General Chemistry II	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not an S&amp;T degree requirement. Will transfer as general credit.</small>
BI 100	General Biology	5	BIO SCI 1113, 1219	General Biology and Lab Applies to degree as Track Elective.
IT 243	C++ Programming	3	CS 1971, 1981*	Intro to Programming Method and Lab (C++)* <small>*Will be substituted for CS 1500.</small>
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives
	Group 2 Major Requirements	22		Group 2 Major Requirements
	Group 1 Core Requirements	36		Group 1 Core Requirements
	Total Hours	58		Total Hours*
				50

\*S&T advisor permission is required to transfer more than 68 credit hours toward the degree.

## Biomedical Engineering-Biomaterials Group 2 Major Requirements

<u>North Central Missouri College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>	
SP 175	Speech Communications	3	SP&MS 1185	Principles of Speech
HI 102 or HI 103 or HI 104 or PL 216	Western Civilization Since 1700 or American History to 1877 or American History since 1877 or National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government
CH 112	General Chemistry II	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not an S&amp;T degree requirement. Will transfer as general credit.</small>
BI 100	General Biology	5	BIO SCI 1113*, 1219*	General General Biology* and Lab* <small>*Applies to degree as Track Elective (Non-engineering).</small>
IT 243	C++ Programming	3	CS 1971, 1981*	Intro to Programming Method and Lab (C++)* <small>*Will be substituted for CS 1500.</small>
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives
	Group 2 Major Requirements	19		Group 2 Major Requirements
	Group 1 Core Requirements	36		Group 1 Core Requirements
	Total Hours	55		Total Hours*
				47

\*S&T advisor permission is required to transfer more than 65 credits toward the S&T Biomedical Engineering degree.

## Ceramic Engineering Group 2 Major Requirements

<u>North Central Missouri College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
HI 102 or HI 103 or HI 104 or PL 216	Western Civilization Since 1700 or American History to 1877 or American History since 1877 or National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
CH 112	General Chemistry II	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not an S&amp;T degree requirement. Will transfer as general credit.</small>	3
EN 102 or SP 175 or HSS Elective	English II or Speech Communications or Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	ENGLISH 1160 or SPMS 1185 or HSS Elective	Writing and Research or Principles of Speech or Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	17		Group 2 Major Requirements	15
	Group 1 Core Requirements	36		Group 1 Core Requirements	31
	Total Hours	53		Total Hours*	46

\*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

<u>North Central Missouri College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
SP 175	Speech Communications	3	SP&MS 1185	Principles of Speech	3
HI 102 or HI 103 or HI 104 or PL 216	Western Civilization Since 1700 or American History to 1877 or American History since 1877 or National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
CH 112	General Chemistry II	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>CHEM 1320 will partially satisfy the 9-hour science elective requirement. *CHEM 1510 is not an S&amp;T degree requirement. Will transfer as general credit.</small>	3
BI 243	Microbiology	4	BIO SCI 3313, 3319	Microbiology and Lab (5) <small>Will partially satisfy the 9-hour science elective requirement.</small>	5
IT 243	C++ Programming	3	CS 1971, 1981*	Intro to Programming Method and Lab (C++)* <small>*Will be substituted for CS 1500.</small>	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	21		Group 2 Major Requirements	20
	Group 1 Core Requirements	36		Group 1 Core Requirements	31
	Total Hours	57		Total Hours*	51

\*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

<u>North Central Missouri College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
EN 102 or SP 175	English II or Speech Communications	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
HI 102 or HI 103 or HI 104 or PL 216	Western Civilization Since 1700 or American History to 1877 or American History since 1877 or National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	9		Group 2 Major Requirements	9
	Group 1 Core Requirements	36		Group 1 Core Requirements	31
	Total Hours	45		Total Hours*	40

\*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

<u>North Central Missouri College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
SP 175	Speech Communications	3	SPMS 1185	Principles of Speech	3
EN 102	English II	3	ENGLISH 1160	Writing and Research	3
HI 102 or HI 103 or HI 104 or PL 216	Western Civilization Since 1700 or American History to 1877 or American History since 1877 or National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
IT 243	C++ Programming	3	CS 1971, 1981*	Intro to Programming Method and Lab (C++)* <small>*Will be substituted for CS 1500.</small>	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Electives	Maximum Free Electives	3	Electives	Maximum Free Electives	3
	Group 2 Major Requirements	18		Group 2 Major Requirements	18
	Group 1 Core Requirements	36		Group 1 Core Requirements	31
	Total Hours	54		Total Hours*	49

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

## Electrical Engineering Group 2 Major Requirements

<u>North Central Missouri College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
SP 175	Speech Communications	3	SPMS 1185	Principles of Speech	3
EN 102	English II	3	ENGLISH 1160	Writing and Research	3
HI 102 or HI 103 or HI 104 or PL 216	Western Civilization Since 1700 or American History to 1877 or American History since 1877 or National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
IT 243	C++ Programming	3	CS 1971, 1981*	Intro to Programming Method and Lab (C++)* <small>*Will be substituted for CS 1500.</small>	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Electives	Maximum Free Electives	3	Electives	Maximum Free Electives	3
	Group 2 Major Requirements	18		Group 2 Major Requirements	18
	Group 1 Core Requirements	36		Group 1 Core Requirements	31
	Total Hours	54		Total Hours*	49

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

## Engineering Management Group 2 Major Requirements

<u>North Central Missouri College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
PY 121	General Psychology	3	PSYCH 1101	General Psychology	3
HI 102 or HI 103 or HI 104 or PL 216	Western Civilization Since 1700 or American History to 1877 or American History since 1877 or National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
SP 175	Speech Communications	3	SPMS 1185	Principles of Speech	3
EN 102	English II	3	ENGLISH 1160	Writing and Research	3
IT 243	C++ Programming	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	3	Electives	Maximum Free Electives	0
	Group 2 Major Requirements	21		Group 2 Major Requirements	18
	Group 1 Core Requirements	36		Group 1 Core Requirements	31
	Total Hours	57		Total Hours*	61

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

## Environmental Engineering Group 2 Major Requirements

<u>North Central Missouri College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>	
EN 102 or SP 175	English II or Speech Communications	3	ENGLISH 1160 or SPMS 1185	3
HI 102 or HI 103 or HI 104	Western Civilization Since 1700 or American History to 1877 or American History since 1877	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310	3
CH 112	General Chemistry II	5	CHEM 1320, 1510*	3
BI 100	General Biology	5	BIO SCI 1113, 1119*	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	3
	<i>No free electives applied to the degree.</i>	0	Maximum Free Electives	0
	Group 2 Major Requirements	19	Group 2 Major Requirements	15
	Group 1 Core Requirements	36	Group 1 Core Requirements	31
	Total Hours	55		Total Hours*
				46

\*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

<u>North Central Missouri College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>	
HI 102 or HI 103 or HI 104 or PL 216	Western Civilization Since 1700 or American History to 1877 or American History since 1877 or National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	3
IT 243	C++ Programming	3	CS 1971, 1981	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	3
	<i>No free electives applied to the degree.</i>	0	Maximum Free Electives	0
	Group 2 Major Requirements	12	Group 2 Major Requirements	12
	Group 1 Core Requirements	36	Group 1 Core Requirements	31
	Total Hours	48		Total Hours*
				43

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

## Mechanical Engineering Group 2 Major Requirements

<u>North Central Missouri College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>	
HI 102 or HI 103 or HI 104 or PL 216	Western Civilization Since 1700 or American History to 1877 or American History since 1877 or National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	3
EN 102 or SP 175	English II or Speech Communications	3	ENGLISH 1160 or SPMS 1185	3
IT 243	C++ Programming	3	CS 1971, 1981	3
	Literature Elective	3		3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	3
	<i>No free electives applied to the degree.</i>	0	Maximum Free Electives	0
	Group 2 Major Requirements	15	Group 2 Major Requirements	15
	Group 1 Core Requirements	36	Group 1 Core Requirements	31
	Total Hours	51		Total Hours*
				46

\*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

<u>North Central Missouri College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
EN 102 or SP 175	English II or Speech Communications	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
HI 102 or HI 103 or HI 104 or PL 216	Western Civilization Since 1700 or American History to 1877 or American History since 1877 or National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
CH 112	General Chemistry II	5	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <small>*CHEM 1510 is not an S&amp;T degree requirement. Will transfer as general credit.</small>	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Electives	Maximum Free Electives	5	Electives	Maximum Free Electives	3
	Group 2 Major Requirements	22		Group 2 Major Requirements	18
	Group 1 Core Requirements	36		Group 1 Core Requirements	31
	Total Hours	58		Total Hours*	49

\*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

<u>North Central Missouri College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
EN 102	English II	3	ENGLISH 1160	Writing and Research	3
HI 102 or HI 103 or HI 104 or PL 216	Western Civilization Since 1700 or American History to 1877 or American History since 1877 or National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	12		Group 2 Major Requirements	12
	Group 1 Core Requirements	36		Group 1 Core Requirements	31
	Total Hours	48		Total Hours*	43

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

## Nuclear Engineering Group 2 Major Requirements

<u>North Central Missouri College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
EN 102 or SP 175	English II or Speech Communications	3	ENGLISH 1160 or SPMS 1185	Writing and Research or Principles of Speech	3
HI 102 or HI 103 or HI 104 or PL 216	Western Civilization Since 1700 or American History to 1877 or American History since 1877 or National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
IT 243	C++ Programming	3	CS 1971, 1981	Intro to Programming Method and Lab (C++)	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Electives	Maximum Free Electives	6	Electives	Maximum Free Electives	6
	Group 2 Major Requirements	21		Group 2 Major Requirements	21
	Group 1 Core Requirements	36		Group 1 Core Requirements	31
	Total Hours	57		Total Hours*	52

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

## Petroleum Engineering Group 2 Major Requirements

<u>North Central Missouri College</u>		<u>Semester</u>	<u>Missouri S&amp;T</u>		
EN 102	English II	3	ENGLISH 1160	Writing and Research	3
HI 102 or HI 103 or HI 104 or PL 216	Western Civilization Since 1700 or American History to 1877 or American History since 1877 or National Government	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3	Humanities or Social Science	Any history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language.	3
	<i>No free electives applied to the degree.</i>	0		Maximum Free Electives	0
	Group 2 Major Requirements	12		Group 2 Major Requirements	12
	Group 1 Core Requirements	36		Group 1 Core Requirements	31
	Total Hours	48		Total Hours*	43

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