## North Central Missouri 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.

|                      | North Central Missouri College                          | Semest         | <u>ter</u>                 | Missouri S&T   |                |
|----------------------|---|----------------|----------------------------|--|----------------|
| MT 150 and<br>MT 250 | Geometry and Calculus I and<br>Geometry and Calculus II | 10             | MATH 1214 and<br>MATH 1215 | Calculus for Engineers I and Calculus for Engineers II Grade of C or better is required. | 8              |
| MT 260               | Geometry and Calculus III                               | 5              | MATH 2222                  | Calculus III Grade of C or better is required.   | 4              |
| PS 210               | General Physics I                                       | 5              | PHYSICS 1135               | Engineering Physics I Grade of C or better is required.                                  | 4              |
| PS 212               | General Physics II                                      | 5              | PHYSICS 2135               | Engineering Physics II Grade of C or better is required.                                 | 4              |
| EN 101               | English I   | 3              | ENGLISH 1120               | Exposition and Argumentation   | 3              |
|                      |   | Total Hours 20 |                            |  | Total Hours 22 |

## 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

|  | Aerospace Engi  | neering   | Group 2 Major R  | equirements   |                     |
|--|---|---|--|---|---------------------|
|  | North Central Missouri College  | 9   | Semester   | Missouri S&T  |                     |
| EN 102 or<br>SP 175  | English II or<br>Speech Communications  | 3   | ENGLISH 1160 or<br>SPMS 1185   | Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.   | 3                   |
| CH 110   | General Chemistry I   | 5   | CHEM 1310*, 1319   | General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.   | 5                   |
| IT 243   | C++ Programming   | 3   | CS 1971, 1981  | Intro to Programming Method and Lab (C++)   | 3                   |
| PH 101   | Intro to Ethics<br>or other engineering, business, bio, social ethics approved by advisor   | 3   | PHILOS 1130  | How Should I Live? An Introduction to Ethics<br>or other engineering, business, bio, social ethics approved by advisor  | 3                   |
|  | <b>Humanities, Ar</b> l<br>From the op<br>6 hours Hum<br>6 hours Behav  | tions listed in eac<br>anities and Fine Ar<br>ioral and Social So | ciences General Education Requi<br>ch group below, select 15 hours to inc<br>ts from at least two specific disciplines<br>ciences from at least two specific discip          | rements<br>clude<br>s and<br>plines.  |                     |
|  | *At least one course must be selected from HISTO  |   | ties and Fine Arts   | State of Missouri government requirement.   |                     |
|  | Sel   |   | at least two specific disciplines.   |   |                     |
| EN 230 or<br>EN 240 or<br>EN 261 or<br>EN 262 or<br>EN 251 or<br>HI 103* or<br>HI 104* or<br>AR 104 or<br>MU 109           | English Literature I or English Literature II or American Literature Before 1865 or Intro to American Literature After 1865 or World Literature: Beginning to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement. | 6   | ENGLISH 1211 or<br>ENGLISH 1212 or<br>ENGLISH 1221 or<br>ENGLISH 1222 or<br>ENGLISH 1231 or<br>HISTORY 1300* or<br>HISTORY 1310* or<br>ART 1180 or<br>MUSIC 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 *Satisfies the State of Missouri government requirement. | 6                   |
|  |   |   | and Social Sciences  |   |                     |
| HI 101 or<br>HI 102* or<br>GE 106 or<br>PH 102 or<br>PL 216* or<br>PY 121 or<br>EC 252 or<br>EC 253 or<br>Foreign Language | Western Civilization to 1700 or  Western Civilization Since 1700* or Intro to World Geography or Intro to Philosophy or National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.  | ect 6 hours from a  | at least two specific disciplines. HISTORY 1100 or HISTORY 2100* or HISTORY 2110 or PHILOS 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<br>elect 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.<br>Group 2 Major Requirements<br>Group 1 Core Requirements<br>To   | 0<br>29<br>28<br>tal Hours 57                                     |  | 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 Aerospace Engineering degree.  | 0<br>29<br>23<br>52 |

|  | Architectural Eng   | gineering (   | Group 2 Major  | Requirements   |                     |
|--|---|---|--|--|---------------------|
|  | North Central Missouri College  | Sen   | nester   | Missouri S&T   |                     |
| EN 102 or<br>SP 175  | English II or<br>Speech Communications  | 3   | ENGLISH 1160 or<br>SPMS 1185   | Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.  | 3                   |
| CH 110   | General Chemistry I   | 5   | CHEM 1310*, 1319   | General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.  | 5                   |
|  | From the o<br>6 hours Hun   | ptions listed in each g<br>nanities and Fine Arts fr<br>vioral and Social Sciend<br>DRY 1200, 1300, 1310, | ces General Education Requiroup below, select 12 hours to ino mat least two specific discipline ces from at least two specific discours or POL SCI 1200 to satisfy the and Fine Arts | nclude<br>es and<br>ciplines.  |                     |
|  | Se  |   | east two specific disciplines.   |  |                     |
| EN 230 or<br>EN 240 or<br>EN 261 or<br>EN 262 or<br>EN 251 or<br>HI 103* or<br>HI 104* or<br>AR 104 or<br>MU 109 | English Literature I or English Literature II or American Literature Before 1865 or Intro to American Literature After 1865 or World Literature: Beginning to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement. | 6   | ENGLISH 1211 or<br>ENGLISH 1212 or<br>ENGLISH 1221 or<br>ENGLISH 1222 or<br>ENGLISH 1231 or<br>HISTORY 1300* or<br>HISTORY 1310* or<br>ART 1180 or<br>MUSIC 1150                     | British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1806 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 'Satisfies the State of Missouri government requirement. | 6                   |
|  | Soloot 6 hours f  |   | d Social Sciences fic disciplines to include HISTO   | NPV 1200   |                     |
| HI 102*  | Western Civilization Since 1700*  *Satisfies the State of Missouri government requirement.  | 3   | HISTORY 1200*  | Modern Western Civilization*  Satisfies the State of Missouri Government requirement.  | 3                   |
| PH 102 or<br>PL 216* or<br>PY 121 or<br>EC 252 or<br>EC 253 or<br>Foreign Language                               | Intro to Philosophy or  National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.  | 3   | PHILOS 1105 or<br>POL SCI 1200* or<br>PSYCH 1101 or<br>ECON 1100 or<br>ECON 1200 or<br>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. Group 2 Major Requirements Group 1 Core Requirements To  | 0<br>20<br>28<br>otal Hours 48  |  | 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 Architectural Engineering degree.   | 0<br>20<br>23<br>43 |

|  |   |   | ng-Biomanufa<br>Requirements   |   |                        |
|--|---|---|--|---|------------------------|
|  | North Central Missouri College  | Seme  | ester  | Missouri S&T  |                        |
| SP 175   | Speech Communications   | 3   | SP&MS 1185   | Principles of Speech Applies to degree as Gen Ed Communication requirement.   | 3                      |
| CH 110   | General Chemistry I   | 5   | CHEM 1310, 1319  | General Chemistry I and Lab   | 5                      |
| CH 112   | General Chemistry II  | 5   | CHEM 1320, 1510*   | General Chemistry II (3) and Qualitative Analysis (2)  *CHEM 1510 is not a degree requirement, transfers as general elective credit.  | 3                      |
| BI 100   | General Biology   | 5   | BIO SCI 1113, 1219   | General Biology and Lab Applies to degree as Track Elective.  | 4                      |
| IT 243   | C++ Programming   | 3   | CS 1971, 1981*   | Intro to Programming Method and Lab (C++)* *Will be substituted for CS 1500.  | 3                      |
|  | From the  | e options listed in each gro<br>umanities and Fine Arts fro<br>3 hours Behavioral a |  | dude<br>s and   |                        |
|  |   | Humanities a  |  |   |                        |
|  |   | Select 6 hours from at lea  | st two specific disciplines.   |   |                        |
| EN 230 or<br>EN 240 or<br>EN 261 or<br>EN 262 or<br>EN 251 or<br>HI 103* or<br>HI 104* or<br>AR 104 or<br>MU 109 | English Literature I or English Literature II or American Literature Before 1865 or Intro to American Literature After 1865 or World Literature: Beginning to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement. | 6   | ENGLISH 1211 or<br>ENGLISH 1212 or<br>ENGLISH 1221 or<br>ENGLISH 1221 or<br>ENGLISH 1231 or<br>HISTORY 1300* or<br>HISTORY 1310* or<br>ART 1180 or<br>MUSIC 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 *Satisfies the State of Missouri government requirement. | 6                      |
|  |   | Behavioral and  |  |   |                        |
| HI 101 or<br>HI 102* or<br>GE 106 or<br>PL 216* or<br>PY 121 or<br>EC 252 or<br>EC 253 or<br>Foreign Language    | Western Civilization to 1700 or  Western Civilization Since 1700* or Intro to World Geography or National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.   | Select 3  | INSTORY 1100 or HISTORY 1200* or HISTORY 2110 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language                                       | Early Western Civilization or  Modern Western Civilization* or World Regional Geography or American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.   | 3                      |
|  | No free electives applied to the degree.<br>Group 2 Major Requirements<br>Group 1 Core Requirements   | 0<br>30<br>28<br>Total Hours 58   |  | 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.  | 0<br>27<br>23<br>s* 50 |

|  |   |   |  | ng-Biomate<br>equirements  |  |          |
|--|---|---|--|--|--|----------|
|  | North Central Missouri College  |   | Semester   |  | Missouri S&T   |          |
| SP 175   | Speech Communications   | 3   |  | SP&MS 1185   | Principles of Speech   | 3        |
| CH 110   | General Chemistry I   | 5   |  | CHEM 1310, 1319  | Applies to degree as Gen Ed Communication requirement.  General Chemistry I and Lab  | 5        |
| CH 112   | General Chemistry II  | 5   |  | CHEM 1320, 1510*   | General Chemistry II (3) and Qualitative Analysis (2)  *CHEM 1510 is not a degree requirement, transfers as general elective credit.   | 3        |
| BI 100   | General Biology   | 5   |  | BIO SCI 1113*, 1219*   | General Biology* and Lab*  *Applies to degree as Track Elective (Non-engineering).   | 4        |
| IT 243   | C++ Programming   | 3   |  | CS 1971, 1981*   | Intro to Programming Method and Lab (C++)* *Will be substituted for CS 1500.   | 3        |
|  | From the  | options listed in e<br>manities and Fine<br>3 hours Beh | each group be<br>Arts from at le<br>avioral and So |  | ude<br>and   |          |
|  |   |   | nities and Fi                                      | •  |  |          |
|  | Se  | elect 6 hours fror                                      | n at least two                                     | specific disciplines.  |  |          |
| EN 230 or<br>EN 240 or<br>EN 261 or<br>EN 262 or<br>EN 251 or<br>HI 103* or<br>HI 104* or<br>AR 104 or<br>MU 109 | English Literature I or English Literature II or American Literature Before 1865 or Intro to American Literature After 1865 or World Literature: Beginning to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation 'Satisfies the State of Missouri government requirement. | 6   |  | ENGLISH 1211 or<br>ENGLISH 1212 or<br>ENGLISH 1221 or<br>ENGLISH 1222 or<br>ENGLISH 1231 or<br>HISTORY 1300* or<br>HISTORY 1310* or<br>ART 1180 or<br>MUSIC 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 **Satisfies the State of Missouri government requirement. | 6        |
|  |   |   | al and Socia                                       |  |  |          |
| HI 101 or<br>HI 102* or<br>GE 106 or<br>PL 216* or<br>PY 121 or<br>EC 252 or<br>EC 253 or<br>Foreign Language    | Western Civilization to 1700 or  Western Civilization Since 1700* or Intro to World Geography or National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.   | 3   | Select 3 hour                                      | S. HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language                                    | Early Western Civilization or  Modern Western Civilization* or World Regional Geography or American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language "Satisfies the State of Missouri government requirement.  | 3        |
|  | No free electives applied to the degree.  | 0   |  |  | Maximum Free Electives   | 0        |
|  | Group 2 Major Requirements<br>Group 1 Core Requirements   | 30<br>28<br>otal Hours 58                               |  |  | Group 2 Major Requirements Group 1 Core Requirements  Total Hours*  *S8T advisor permission is required to transfer more than 69 credits toward the S8T Biomedical Engineering degree.   | 27<br>23 |

|  | Ceramic Engine  | erinç  | g Group   | 2 Major Red   | quirements  |                |
|--|---|--|---|---|---|----------------|
|  | North Central Missouri College  |  | Semester  |   | Missouri S&T  |                |
| EN 102 or<br>SP 175  | English II or<br>Speech Communications  | 3  | 3   | ENGLISH 1160 or<br>SPMS 1185  | Writing and Research or<br>Principles of Speech<br>Applies to degree as Gen Ed Communication requirement.   | 3              |
| CH 110   | General Chemistry I   | 5  | 5   | CHEM 1310, 1319   | General Chemistry I and Lab   | 5              |
| CH 112   | General Chemistry II  | 5  | 5   | CHEM 1320, 1510*  | General Chemistry II (3) and Qualitative Analysis (2)  *CHEM 1510 is not a degree requirement, transfers as general elective credit.  | 3              |
|  | From the opti<br>6 hours Humar  | ons listed in ities and Final and Socretary 1200, 13 | n each group be<br>ine Arts from at le<br>ial Sciences fron | •   | ements<br>ude<br>and<br>ines.   |                |
|  | Selec   |  |   | specific disciplines.   |   |                |
| EN 230 or<br>EN 240 or<br>EN 261 or<br>EN 262 or<br>EN 251 or<br>HI 103* or<br>HI 104* or<br>AR 104 or<br>MU 109           | English Literature I or English Literature II or American Literature Before 1865 or Intro to American Literature After 1865 or World Literature: Beginning to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement. | E  |   | ENGLISH 1211 or<br>ENGLISH 1212 or<br>ENGLISH 1221 or<br>ENGLISH 1222 or<br>ENGLISH 1231 or<br>HISTORY 1300* or<br>HISTORY 1310* or<br>ART 1180 or<br>MUSIC 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: 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement. | 6              |
|  |   |  | ioral and Socia   |   |   |                |
| HI 101 or<br>HI 102* or<br>GE 106 or<br>PH 102 or<br>PL 216* or<br>PY 121 or<br>EC 252 or<br>EC 253 or<br>Foreign Language | Western Civilization to 1700 or  Western Civilization Since 1700* or Intro to World Geography or Intro to Philosophy or National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.  | €  | i   | o specific disciplines. HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 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 Microeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.                                     | 6              |
|  |   | Humanitie  | es, Arts, and Se<br>Select 3 hour                           |   |   |                |
| HASS Elective  | Humanities, Arts, Social Sciences Elective: Any history, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.   | art,   |   | 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.  | C  |   |   | Maximum Free Electives  | 0              |
|  | Group 2 Major Requirements<br>Group 1 Core Requirements<br>Tota   | 2<br>2<br>1 Hours 5                                  | 8   |   | 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.   | 26<br>23<br>49 |

|  | Chemical Engineeri  | ng - E                                       | Bioche  |   |   |          |
|--|---|--|---|---|---|----------|
|  |   | ıp z n                                       |   | Requirements  |   |          |
|  | North Central Missouri College  |  | Semest  |   | Missouri S&T Principles of Speech   |          |
| SP 175   | Speech Communications   | 3  | 3   | SP&MS 1185  | Applies to degree as Gen Ed Communication requirement.  | 3        |
| CH 110   | General Chemistry I   | 5  | 5   | CHEM 1310, 1319   | General Chemistry I and Lab   | 5        |
| CH 112   | General Chemistry II  | 5  | 5   | CHEM 1320, 1510*  | General Chemistry II (3) and Qualitative Analysis* (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.  | 3        |
| BI 243   | Microbiology  | 4  | L   | BIO SCI 3313, 3319  | Microbiology and Lab (5) Will partially satisfy he 9-hour science elective requirement.   | 8        |
| IT 243   | C++ Programming   | 3  | 3   | CS 1971, 1981*  | Intro to Programming Method and Lab (C++)* *Will be substituted for CS 1500.  | 3        |
|  | 6 hours Huma  | nities and Fi<br>oral and Soc<br>RY 1200, 13 | ine Arts from a<br>cial Sciences fr<br>00, 1310, or P | •   | and<br>blines.  |          |
|  | Sele  |  | manities and<br>from at least t                       | Fine Arts wo specific disciplines.  |   |          |
| EN 230 or<br>EN 240 or<br>EN 261 or<br>EN 262 or<br>EN 251 or<br>HI 103* or<br>HI 104* or<br>AR 104 or<br>MU 109           | English Literature I or English Literature II or American Literature Before 1865 or Intro to American Literature After 1865 or World Literature: Beginning to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation "Satisfies the State of Missouri government requirement. | €  | 3   | ENGLISH 1211 or<br>ENGLISH 1212 or<br>ENGLISH 1221 or<br>ENGLISH 1222 or<br>ENGLISH 1222 or<br>ENGLISH 1231 or<br>HISTORY 1310* or<br>HISTORY 1310* or<br>ART 1180 or<br>MUSIC 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 *Satisfies the State of Missouri government requirement. | 6        |
|  | Cala  |  |   | cial Sciences   |   |          |
| HI 101 or<br>HI 102* or<br>GE 106 or<br>PH 102 or<br>PL 216* or<br>PY 121 or<br>EC 252 or<br>EC 253 or<br>Foreign Language | Western Civilization to 1700 or  Western Civilization Since 1700* or Intro to World Geography or Intro to Philosophy or National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.  | ct 6 nours i                                 |   | wo specific disciplines. HISTORY 1100 or HISTORY 2110 or PHILOS 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        |
|  | No free electives applied to the degree. Group 2 Major Requirements   | (3   |   |   | Maximum Free Electives<br>Group 2 Major Requirements  | 0<br>34  |
|  | Group 1 Core Requirements   | 2<br>al Hours 6                              | 8   |   | Group 1 Core Requirements  Total Hours*  *S&T advisor permission is required to transfer more than 68 credits toward the S&T Chemical Engineering degree.   | 23<br>57 |

|  | Civil Enginee   | ring (   | Group 2   | Major Requ   | uirements   |                     |
|--|---|--|---|--|---|---------------------|
|  | North Central Missouri College  |  | Semeste   | r  | Missouri S&T  |                     |
| EN 102 or<br>SP 175  | English II or<br>Speech Communications  | ;  | 3   | ENGLISH 1160 or<br>SPMS 1185   | Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.   | 3                   |
| CH 110   | General Chemistry I   |  | 5   | CHEM 1310, 1319  | General Chemistry I and Lab   | 5                   |
|  | From the opt<br>6 hours Huma<br>6 hours Behavi<br>*At least one course must be selected from HISTOI   | tions listed in anities and Figure in and Society 1200, 13  Hu | in each group be<br>ine Arts from at I<br>cial Sciences fron<br>00, 1310, or PO<br>manities and F | ine Arts   | clude<br>s and<br>olines.   |                     |
| EN 230 or<br>EN 240 or<br>EN 261 or<br>EN 262 or<br>EN 251 or<br>HI 103* or<br>HI 104* or<br>AR 104 or<br>MU 109           | English Literature I or English Literature II or American Literature Before 1865 or Intro to American Literature After 1865 or World Literature: Beginning to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement. |  | irom at least tw  | o specific 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 | 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 *Satisfies the State of Missouri government requirement. | 6                   |
|  |   |  | ioral and Soci  |  |   |                     |
| HI 101 or<br>HI 102* or<br>GE 106 or<br>PH 102 or<br>PL 216* or<br>PY 121 or<br>EC 252 or<br>EC 253 or<br>Foreign Language | Western Civilization to 1700 or  Western Civilization Since 1700* or Intro to World Geography or Intro to Philosophy or National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.  | (  | 3   | o specific disciplines. HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 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                   |
|  |   | Humaniti   | es, Arts, and S<br>Select 3 hou   | ocial Sciences   |   |                     |
| HASS Elective  | Humanities, Arts, Social Sciences Elective: Any history music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.  |  | Select 3 flou   | 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.<br>Group 2 Major Requirements<br>Group 1 Core Requirements<br>Tot  | 2  | 0<br>13<br>18<br>11   |  | 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 Civil Engineering degree.  | 0<br>23<br>23<br>46 |

|  | Computer En  | gineeri  | ng                         | Group 2 Major Re   | equirements   |                     |
|--|--|--|----------------------------|--|---|---------------------|
|  | North Central Missouri College   |  |                            | Semester   | Missouri S&T  |                     |
| SP 175   | Speech Communications  |  | 3                          | SPMS 1185  | Principles of Speech Applies to degree as Gen Ed Communication requirement.   | 3                   |
| CH 110   | General Chemistry I  |  | 5                          | CHEM 1310, 1319  | General Chemistry I and Lab   | 5                   |
| IT 243   | C++ Programming  |  | 3                          | CS 1971, 1981*   | Intro to Programming Method and Lab (C++)* *Will be substituted for CS 1500.  | 3                   |
|  | From the 6 hours   | ne options liste<br>Humanities and<br>Behavioral and S | d in e<br>I Fine<br>Social | Sciences General Education Require<br>ach group below, select 15 hours to inclearts from at least two specific disciplines<br>Sciences from at least two specific disciplines<br>1310, or POL SCI 1200 to satisfy the St | ude<br>and<br>lines.  |                     |
|  |  |  |                            | nities and Fine Arts   |   |                     |
| EN 230 or<br>EN 240 or<br>EN 261 or<br>EN 262 or<br>EN 251 or  | English Literature I or<br>English Literature II or<br>American Literature Before 1865 or<br>Intro to American Literature After 1865 or<br>World Literature: Beginning to the Renaissance o  |  |                            | n at least two specific disciplines.  ENGLISH 1211 or  ENGLISH 1212 or  ENGLISH 1221 or  ENGLISH 1222 or  ENGLISH 1231 or  | British Literature I: The Beginnings to 1800 or<br>British Literature II: 1800 to Present<br>American Literature: 1600 to 1865 or<br>American Literature: 1865 to Present or<br>World Literature I: Beginnings to the Renaissance or  |                     |
| HI 103* or<br>HI 104* or<br>AR 104 or<br>MU 109  | American History to 1877* or<br>American History Since 1877* or<br>Art Appreciation or<br>Music Understanding and Appreciation<br>*Satisfies the State of Missouri government requirement.   |  | 6                          | HISTORY 1300* or<br>HISTORY 1310* or<br>ART 1180 or<br>MUSIC 1150  | American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.  | 6                   |
|  |  |  |                            | al and Social Sciences n at least two specific disciplines.  |   |                     |
| HI 101 or<br>HI 102* or<br>GE 106 or<br>PH 102 or<br>PL 216* or<br>PY 121 or<br>EC 252 or<br>EC 253 or<br>Foreign Language | Western Civilization to 1700 or  Western Civilization Since 1700* or Intro to World Geography or Intro to Philosophy or National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement. |  | 6                          | HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or 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                   |
|  |  | Human  |                            | Arts, and Social Sciences Select 3 hours.  |   |                     |
| EN 102   | English II   |  | 3                          | ENGLISH 1160   | Writing and Research  | 3                   |
| Electives  | Maximum Free Electives<br>Group 2 Major Requirements<br>Group 1 Core Requirements  | Total Hours  | 3<br>29<br>28<br>57        | 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<br>29<br>23<br>52 |

|  | Electrical Engi   | neerin   | ıg Gı                                  | roup 2 Major Re  | quirements  |                     |
|--|---|--|--|--|---|---------------------|
|  | North Central Missouri College  |  | Ser                                    | nester   | Missouri S&T  |                     |
| SP 175   | Speech Communications   |  | 3                                      | SPMS 1185  | Principles of Speech Applies to degree as Gen Ed Communication requirement.   | 3                   |
| CH 110   | General Chemistry I   |  | 5                                      | CHEM 1310, 1319  | Applies to degree as Gen Ed Communication requirement.  General Chemistry I and Lab   | 5                   |
| IT 243   | C++ Programming   |  | 3                                      | CS 1971, 1981*   | Intro to Programming Method and Lab (C++)* *Will be substituted for CS 1500.  | 3                   |
|  | From the 6<br>6 hours Hu  | options listed<br>imanities and<br>lavioral and So | in each o<br>ine Arts f<br>ocial Scien | nces General Education Require<br>group below, select 15 hours to incli-<br>from at least two specific disciplines<br>coes from at least two specific discipli-<br>, or POL SCI 1200 to satisfy the St | ude<br>and<br>lines.  |                     |
|  |   |  |  | s and Fine Arts  |   |                     |
| EN 230 or<br>EN 240 or<br>EN 261 or<br>EN 262 or<br>EN 251 or<br>HI 103* or<br>HI 104* or<br>AR 104 or<br>MU 109           | English Literature I or English Literature II or American Literature Before 1865 or Intro to American Literature After 1865 or World Literature: Beginning to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement. |  | 6                                      | east two specific disciplines. 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                | 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 "Satisfies the State of Missouri government requirement. | 6                   |
|  | 9   |  |  | d Social Sciences east two specific disciplines.   |   |                     |
| HI 101 or<br>HI 102* or<br>GE 106 or<br>PH 102 or<br>PL 216* or<br>PY 121 or<br>EC 252 or<br>EC 253 or<br>Foreign Language | Western Civilization to 1700 or  Western Civilization Since 1700* or Intro to World Geography or Intro to Philosophy or National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.  | CICCL O HOUIS                                      | 6                                      | HISTORY 1100 or HISTORY 2110 or HISTORY 2110 or PHILOS 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 Microeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.   | 6                   |
|  |   | Humanit  |  | , and Social Sciences  |   |                     |
| EN 102   | English II  |  | 3                                      | ENGLISH 1160   | Writing and Research  | 3                   |
| Electives  | Maximum Free Electives<br>Group 2 Major Requirements<br>Group 1 Core Requirements   |  | 6<br>32<br>28<br>60                    | 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 Electrical Engineering degree.   | 6<br>32<br>23<br>55 |

|  | Engineering Ma  | anagen  | ner                                      | nt Group   | 2 Major  | Requirements  |                     |
|--|---|---|--|--|--|---|---------------------|
|  | North Central Missouri College  |   |  | Semester   |  | Missouri S&T  |                     |
| SP 175   | Speech Communications   |   | 3  | SPI  | IS 1185  | Principles of Speech Applies to degree as Gen Ed Communication requirement.   | 3                   |
| CH 110   | General Chemistry I   |   | 5  | CHE  | EM 1310. 1319  | General Chemistry I and Lab   | 5                   |
| IT 243   | C++ Programming   |   | 3  |  | 1971, 1981   | Intro to Programming Method and Lab (C++)   | 3                   |
|  | From the 6 hours  | ne options liste<br>Humanities and<br>ehavioral and S<br>ISTORY 1200, | d in ea<br>I Fine I<br>Social S<br>1300, | ach group below,<br>Arts from at least to<br>Sciences from at le<br>1310, or POL SCI | •  | clude<br>s and<br>iplines.  |                     |
|  |   |   |  | nities and Fine A  |  |   |                     |
|  |   | Select 6 hour   | s fron                                   | n at least two spe   |  |   |                     |
| EN 230 or<br>EN 240 or<br>EN 261 or<br>EN 262 or<br>EN 251 or<br>HI 103* or<br>HI 104* or<br>AR 104 or<br>MU 109 | English Literature I or English Literature II or American Literature Before 1865 or Intro to American Literature After 1865 or World Literature: Beginning to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement. |   | 6  | ENG<br>ENG<br>ENG<br>HIS<br>HIS<br>ART   | ELISH 1211 or<br>ELISH 1212 or<br>ELISH 1221 or<br>ELISH 1221 or<br>ELISH 1231 or<br>FORY 1300* or<br>FORY 1310* or<br>1180 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 I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement. | 6                   |
|  |   | Beh   | avior                                    | al and Social Sci  | ences  |   |                     |
|  | Select 6 ho   | ours from at lea  | ast two                                  | specific disciplin   | es to include PSYC   | CH 1101.  |                     |
| PH 102   | General Psychology  |   | 3  | PSY  | 'CH 1101   | General Psychology Required   | 3                   |
| HI 101 or<br>HI 102* or<br>GE 106 or<br>PH 102 or<br>PL 216* or<br>EC 252 or<br>EC 253 or<br>Foreign Language    | Western Civilization to 1700 or  Western Civilization Since 1700* or Intro to World Geography or Intro to Philosophy or National Government* or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.  |   | 3  | HIS<br>HIS<br>PHI<br>POI<br>ECC<br>ECC   | TORY 1100 or<br>FORY 1200* or<br>TORY 2110 or<br>_OS 1105 or<br>. SCI 1200* or<br>DN 1100 or<br>DN 1200 or<br>eign 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  *Satisfies the State of Missouri government requirement.   | 3                   |
|  |   | Human   |  | Arts, and Social<br>Select 3 hours.  | Sciences   |   |                     |
| EN 102   | English II  |   | 3  |  | GLISH 1160   | Writing and Research  | 3                   |
|  | No free electives applied to the degree.<br>Group 2 Major Requirements<br>Group 1 Core Requirements   | Total Hours   | 0<br>26<br>28<br>54                      | Elec   | tives  | Maximum Free Electives Group 2 Major Requirements 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.   | 0<br>26<br>23<br>61 |

|  | Environmental E   | ngineer  | ing Gro  | oup 2 Major  | Requirements   |                     |
|--|---|--|--|--|--|---------------------|
|  | North Central Missouri College  |  | Semester   |  | Missouri S&T   |                     |
| EN 102 or<br>SP 175  | English II or<br>Speech Communications  | 3  |  | ENGLISH 1160 or<br>SPMS 1185   | Writing and Research or Principles of Speech Applies to degree as 6en Ed Communication requirement.  | 3                   |
| CH 110   | General Chemistry I   | 5  |  | CHEM 1310, 1319  | General Chemistry I and Lab  | 5                   |
| CH 112   | General Chemistry II  | 5  |  | CHEM 1320, 1510*   | General Chemistry II (3) and Qualitative Analysis (2)  *CHEM 1510 is not a degree requirement, transfers as general elective credit.   | 3                   |
| BI 100   | General Biology   | 5  |  | BIO SCI 1113, 1219*  | General Biology (3) and Lab* (1)  *The lab is not a degree requirement, transfers as general elective credit.  | 3                   |
|  | From the<br>6 hours Hi  | options listed in<br>umanities and Fine<br>navioral and Socia<br>TORY 1200, 1300 | each group be<br>e Arts from at le<br>I Sciences fron<br>I, 1310, or POL | •  | elude<br>s and<br>olines.  |                     |
|  | \$  |  | anities and F<br>om at least two   | ine Arts<br>o specific disciplines.  |  |                     |
| EN 230 or<br>EN 240 or<br>EN 261 or<br>EN 262 or<br>EN 251 or<br>HI 103* or<br>HI 104* or<br>AR 104 or<br>MU 109 | English Literature I or English Literature II or American Literature Before 1865 or Intro to American Literature After 1865 or World Literature: Beginning to the Renaissance or American History to 1877* or Art Appreciation or Music Understanding and Appreciation 'Satisfies the State of Missouri government requirement. | 6  |  | ENGLISH 1211 or<br>ENGLISH 1212 or<br>ENGLISH 1221 or<br>ENGLISH 1222 or<br>ENGLISH 1231 or<br>HISTORY 1300* or<br>HISTORY 1310* or<br>ART 1180 or<br>MUSIC 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 *Satisfies the State of Missouri government requirement. | 6                   |
|  | 0-1-406   |  | ral and Socia  |  | DV 4000  |                     |
| HI 102*  | Western Civilization Since 1700*  *Satisfies the State of Missouri government requirement.  | s from at least tw   | o specific disc  | ciplines to include HISTO<br>HISTORY 1200*   | Modern Western Civilization*  *Satisfies the State of Missouri Government requirement.   | 3                   |
| PH 102 or<br>PL 216* or<br>PY 121 or<br>EC 252 or<br>EC 253 or<br>Foreign Language                               | Intro to Philosophy or  National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.  | 3  |  | PHILOS 1105 or<br>POL SCI 1200* or<br>PSYCH 1101 or<br>ECON 1100 or<br>ECON 1200 or<br>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.<br>Group 2 Major Requirements<br>Group 1 Core Requirements   | 0<br>30<br>28<br>Total Hours 58  |  |  | 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 Environmental Engineering degree.   | 0<br>26<br>23<br>49 |

|  | Geological Engir   | neering   | Group 2 Major R  | Requirements   |                           |
|--|--|---|--|--|---------------------------|
|  | North Central Missouri College   |   | Semester   | Missouri S&T   |                           |
| CH 110   | General Chemistry I  | 5   | CHEM 1310, 1319  | General Chemistry I and Lab  | 5                         |
| IT 243   | C++ Programming  | 3   | CS 1971, 1981  | Intro to Programming Method and Lab (C++)  | 3                         |
|  | From the opt<br>6 hours Huma   | ions listed in eanities and Fine Apral and Social Sty 1200, 1300, | •  | iclude<br>is and<br>iplines.   |                           |
|  | 0-1-   |   | nities and Fine Arts   |  |                           |
| EN 230 or<br>EN 240 or<br>EN 261 or<br>EN 262 or<br>EN 251 or<br>HI 103* or<br>HI 104* or<br>AR 104 or<br>MU 109           | English Literature I or English Literature II or American Literature Before 1865 or Intro to American Literature After 1865 or World Literature: Beginning to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation         | ct 6 hours from   | nat least two specific 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 | 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     | 6                         |
|  | *Satisfies the State of Missouri government requirement.   | B. b. day   |  | *Satisfies the State of Missouri government requirement.   |                           |
|  | Cole   |   | al and Social Sciences   |  |                           |
| HI 101 or<br>HI 102* or<br>GE 106 or<br>PH 102 or<br>PL 216* or<br>PY 121 or<br>EC 252 or<br>EC 253 or<br>Foreign Language | Western Civilization to 1700 or  Western Civilization Since 1700* or Intro to World Geography or Intro to Philosophy or National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement. | 6   | n at least two specific disciplines. HISTORY 1100 or HISTORY 1200° or HISTORY 2110 or PHILOS 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  |  |                           |
| HASS Elective  | Humanities, Arts, Social Sciences Elective: Any history music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.   |   | Select 3 hours.  HASS Elective   | Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.   | 3                         |
|  | No free electives applied to the degree.<br>Group 2 Major Requirements<br>Group 1 Core Requirements<br>Tot   | 0<br>23<br>28<br>al Hours 51                                      |  | Maximum Free Electives 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.  | 0<br>23<br>23<br>23<br>46 |

|  | Mechanical Engin  | eerin  | g Grou  | ıp 2 Major F  | Requirements   |          |
|--|---|--|---|---|--|----------|
|  | North Central Missouri College  |  | Semeste   | <u>:</u>  | Missouri S&T   |          |
| EN 102 or<br>SP 175  | English II or<br>Speech Communications  | 3  |   | ENGLISH 1160 or<br>SPMS 1185  | Writing and Research or<br>Principles of Speech<br>Applies to degree as Gen Ed Communication requirement.  | 3        |
| CH 110   | General Chemistry I   | 5  |   | CHEM 1310*, 1319  | General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.  | 5        |
| IT 243   | C++ Programming   | 3  |   | CS 1971, 1981   | Intro to Programming Method and Lab (C++)  | 3        |
|  | From the optio<br>6 hours Humani  | ns listed in<br>ties and Fin<br>al and Socia | each group be<br>e Arts from at I<br>al Sciences fror | eneral Education Requi<br>elow, select 15 hours to inc<br>east two specific disciplines<br>n at least two specific disci<br>L SCI 1200 to satisfy the             | clude<br>s and<br>iplines.   |          |
|  |   | Hum  | anities and F   | ine Arts  |  |          |
|  |   | 6 hours fro                                  | om at least tw  | o specific disciplines.   |  |          |
| EN 230 or<br>EN 240 or<br>EN 261 or<br>EN 262 or<br>EN 251 or<br>HI 103* or<br>HI 104* or<br>AR 104 or<br>MU 109           | English Literature I or English Literature II or American Literature Before 1865 or Intro to American Literature After 1865 or World Literature: Beginning to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement. | 6  |   | ENGLISH 1211 or<br>ENGLISH 1212 or<br>ENGLISH 1221 or<br>ENGLISH 1222 or<br>ENGLISH 1231 or<br>HISTORY 1300° or<br>HISTORY 1310° or<br>ART 1180 or<br>MUSIC 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: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfes the State of Missouri government requirement. | 6        |
|  |   | Behavio                                      | oral and Soci   | al Sciences   |  |          |
|  | Selec   | 6 hours fro                                  | om at least tw  | o specific disciplines.   |  |          |
| HI 101 or<br>HI 102* or<br>GE 106 or<br>PH 102 or<br>PL 216* or<br>PY 121 or<br>EC 252 or<br>EC 253 or<br>Foreign Language | Western Civilization to 1700 or  Western Civilization Since 1700* or Intro to World Geography or Intro to Philosophy or  National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.   | 6  |   | HISTORY 1100 or<br>HISTORY 1200* or<br>HISTORY 2110 or<br>PHILOS 1105 or<br>POL SCI 1200* or<br>PSVCH 1101 or<br>ECON 1100 or<br>ECON 1200 or<br>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        |
|  | '   | lumanities                                   | s, Arts, and S<br>Select 3 hou                        | ocial Sciences<br>rs.   |  |          |
| HASS Elective  | Humanities, Arts, Social Sciences Elective: Any history, a music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.   | ırt,<br>3                                    |   | HASS Elective   | Humanities, Arts, Social Sciences Elective: Any history, art,<br>music, theater, English and technical communication,<br>philosophy, political science, psychology, economics,<br>etymology, or foreign language.  | 3        |
|  | No free electives applied to the degree.  | 0  |   |   | Maximum Free Electives   | 0        |
|  | Group 2 Major Requirements  | 26   |   |   | Group 2 Major Requirements   | 26       |
|  | Group 1 Core Requirements Total   | 28<br>Hours 54                               |   |   | 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.   | 23<br>49 |

|  | Metallurgical Engir   | neering (   | Group 2 Major   | Requirements  |                  |
|--|---|---|---|---|------------------|
|  | North Central Missouri College  | Sem   | <u>nester</u>   | Missouri S&T  |                  |
| EN 102 or<br>SP 175  | English II or<br>Speech Communications  | 3   | ENGLISH 1160 or<br>SPMS 1185  | Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.   | 3                |
| CH 110   | General Chemistry I   | 5   | CHEM 1310, 1319   | General Chemistry I and Lab   | 5                |
| CH 112   | General Chemistry II  | 5   | CHEM 1320, 1510*  | General Chemistry II (3) and Qualitative Analysis (2)  *CHEM 1510 is not a degree requirement, transfers as general elective credit.  | 3                |
|  | From the option 6 hours Human   | ns listed in each gr<br>ities and Fine Arts fr<br>al and Social Scienc<br>/ 1200, 1300, 1310, | •   | i <b>rements</b><br>clude<br>s and<br>plines.   |                  |
|  | Selec   |   | and Fine Arts ast two specific disciplines.   |   |                  |
| EN 230 or<br>EN 240 or<br>EN 261 or<br>EN 262 or<br>EN 251 or<br>HI 103* or<br>HI 104* or<br>AR 104 or<br>MU 109           | English Literature I or English Literature II or American Literature Before 1865 or Intro to American Literature After 1865 or World Literature: Beginning to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *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                | 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 *Satisfies the State of Missouri government requirement. | 6                |
|  |   |   | d Social Sciences   |   |                  |
| HI 101 or<br>HI 102* or<br>GE 106 or<br>PH 102 or<br>PL 216* or<br>PY 121 or<br>EC 252 or<br>EC 253 or<br>Foreign Language | Western Civilization to 1700 or  Western Civilization Since 1700* or Intro to World Geography or Intro to Philosophy or National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.  | 6   | ast two specific disciplines. HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 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                |
|  |   |   | and Social Sciences 3 hours.  |   |                  |
| HASS Elective  | Humanities, Arts, Social Sciences Elective: Any history, a 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                |
|  | Maximum Free Electives  | 3   |   | Maximum Free Electives  | 3                |
|  | Group 2 Major Requirements<br>Group 1 Core Requirements<br>Total  | 31<br>28<br>Hours 59  |   | Group 2 Major Requirements Group 1 Core Requirements  Total Hours'  *\$&T advisor permission is required to transfer more than 68 credits toward the \$&T Metallurgical Engineering degree.   | 29<br>23<br>* 52 |

|  | Mining Engine   | ering G   | iroup 2 Major R  | equirements  |                     |
|--|---|---|--|--|---------------------|
|  | North Central Missouri College  |   | <u>Semester</u>  | Missouri S&T   |                     |
| EN 102 or<br>SP 175  | English II or<br>Speech Communications  | 3   | ENGLISH 1160 or<br>SPMS 1185   | Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.  | 3                   |
| CH 110   | General Chemistry I   | 5   | CHEM 1310, 1319  | General Chemistry I and Lab  | 5                   |
|  | From the op<br>6 hours Hum  | otions listed in ea<br>anities and Fine<br>vioral and Social S<br>PRY 1200, 1300, |  | o include<br>lines and<br>disciplines.   |                     |
|  | Sal   |   | nities and Fine Arts  at least two specific disciplines.   |  |                     |
| EN 230 or<br>EN 240 or<br>EN 261 or<br>EN 262 or<br>EN 251 or<br>HI 103* or<br>HI 104* or<br>AR 104 or<br>MU 109           | English Literature I or English Literature II or American Literature Before 1865 or Intro to American Literature After 1865 or World Literature: Beginning to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement. | ect o nouls non   | 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                       | 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 satisfies the State of Missouri government requirement. | 6                   |
|  |   |   | al and Social Sciences   |  |                     |
| HI 101 or<br>HI 102* or<br>GE 106 or<br>PH 102 or<br>PL 216* or<br>PY 121 or<br>EC 252 or<br>EC 253 or<br>Foreign Language | Western Civilization to 1700 or Western Civilization Since 1700* or Intro to World Geography or Intro to Philosophy or National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.   | ect 6 hours fron  | n at least two specific disciplines. HISTORY 1100 or HISTORY 2200* or HISTORY 2110 or PHILOS 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 Philiosophy or  American Government*or  General Psychology or  Principles of Microeconomics or  Principles of Macroeconomics or  Elementary or Intermediate Foreign Language  *Satisfies the State of Missouri government requirement.   | 6                   |
|  | No free electives applied to the degree.<br>Group 2 Major Requirements<br>Group 1 Core Requirements<br>To   | 0<br>20<br>28<br>tal Hours 48   |  | 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 Mining Engineering degree.  | 0<br>20<br>23<br>43 |

|   | Nuclear Engine   | erinç                                | g Group   | 2 Major Req  | uirements   |          |
|---|--|--------------------------------------|---|--|---|----------|
|   | North Central Missouri College   |                                      |   |  | Missouri S&T  |          |
| EN 102 or<br>SP 175   | English II or<br>Speech Communications   | :                                    | 3   | ENGLISH 1160 or<br>SPMS 1185   | Writing and Research or<br>Principles of Speech<br>Applies to degree as Gen Ed Communication requirement.   | 3        |
| CH 110<br>IT 243  | General Chemistry I<br>C++ Programming   |                                      | 5<br>3  | CHEM 1310, 1319<br>CS 1971, 1981   | General Chemistry I and Lab<br>Intro to Programming Method and Lab (C++)  | 5<br>3   |
|   | From the optic<br>6 hours Human  | ns listed<br>ties and F<br>al and So | in each group be<br>ine Arts from at le<br>cial Sciences from | neral Education Require<br>low, select 15 hours to inclu<br>ast two specific disciplines a<br>at least two specific disciplin<br>SCI 1200 to satisfy the Sta | de<br>nd<br>nes.  |          |
|   |  |                                      | manities and Fi   |  |   |          |
| EN 230 or<br>EN 240 or<br>EN 261 or   | English Literature I or<br>English Literature II or<br>American Literature Before 1865 or  | t 6 hours                            | from at least two   | specific disciplines. ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or  | British Literature I: The Beginnings to 1800 or<br>British Literature II: 1800 to Present<br>American Literature: 1600 to 1865 or   |          |
| EN 262 or<br>EN 251 or<br>HI 103* or<br>HI 104* or<br>AR 104 or                                 | Intro to American Literature After 1865 or<br>World Literature: Beginning to the Renaissance or<br>American History to 1877* or<br>American History Since 1877* or<br>Art Appreciation or  | 1                                    | 6   | ENGLISH 1222 or<br>ENGLISH 1231 or<br>HISTORY 1300* or<br>HISTORY 1310* or<br>ART 1180 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   | 6        |
| MU 109  | Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.  |                                      |   | MUSIC 1150   | Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.   |          |
|   | Soloo  |                                      | vioral and Socia  | I Sciences specific disciplines.   |   |          |
| EC 252 or<br>EC 253   | Microeconomics or<br>Macroeconomics  |                                      | 3   | ECON 1100 or<br>ECON 1200  | Principles of Microeconomics or<br>Principles of Macroeconomics   | 3        |
| HI 101 or<br>HI 102* or<br>GE 106 or<br>PH 102 or<br>PL 216* or<br>PY 121or<br>Foreign Language | Western Civilization to 1700 or  Western Civilization Since 1700* or Intro to World Geography or Intro to Philosophy or National Government* or General Psychology or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement. | :                                    | 3   | HISTORY 1100 or<br>HISTORY 1200° or<br>HISTORY 2110 or<br>PHILOS 1105 or<br>POL SCI 1200° or<br>PSYCH 1101 or<br>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        |
|   | · ·  | Humaniti                             | es, Arts, and So<br>Select 3 hour                             |  |   |          |
| HASS Elective   | Humanities, Arts, Social Sciences Elective: Any history, a music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.  |                                      | 3   | HASS Elective  | Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.  | 3        |
|   | Maximum Free Electives   | (                                    | 0   |  | Maximum Free Electives  | 0        |
|   | Group 2 Major Requirements   |                                      | 26  |  | Group 2 Major Requirements  | 26       |
|   | Group 1 Core Requirements Total  | Hours 5                              | 28<br>54  |  | 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.   | 23<br>49 |

|  | Petroleum Eng   | neering Gr   | oup 2 Major R   | Requirements   |                     |
|--|---|--|---|--|---------------------|
|  | North Central Missouri College  | Semo   | ester_  | Missouri S&T   |                     |
| EN 102 or<br>SP 175  | English II or<br>Speech Communications  | 3  | ENGLISH 1160 or<br>SPMS 1185  | Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.  | 3                   |
| CH 110   | General Chemistry I   | 5  | CHEM 1310, 1319   | General Chemistry I and Lab  | 5                   |
|  | From the of 6 hours Hu  | options listed in each gro<br>manities and Fine Arts fro<br>avioral and Social Science | es General Education Requ<br>oup below, select 15 hours to in<br>m at least two specific discipline<br>es from at least two specific disc<br>or POL SCI 1200 to satisfy the | nclude<br>es and<br>ciplines.  |                     |
|  |   | Humanities a   | and Fine Arts   |  |                     |
|  |   | elect 6 hours from at lea  | st two specific disciplines.  |  |                     |
| EN 230 or<br>EN 240 or<br>EN 261 or<br>EN 262 or<br>EN 251 or<br>HI 103* or<br>HI 104* or<br>AR 104 or<br>MU 109           | English Literature I or English Literature II or American Literature Before 1865 or Intro to American Literature After 1865 or World Literature: Beginning to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation 'Satisfies the State of Missouri government requirement. | 6  | ENGLISH 1211 or<br>ENGLISH 1212 or<br>ENGLISH 1221 or<br>ENGLISH 1222 or<br>ENGLISH 1231 or<br>HISTORY 1300° or<br>HISTORY 1310° or<br>ART 1180 or<br>MUSIC 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: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement. | 6                   |
|  |   | Behavioral and   | Social Sciences   |  |                     |
|  | S   | elect 6 hours from at lea  | st two specific disciplines.  |  |                     |
| HI 101 or<br>HI 102* or<br>GE 106 or<br>PH 102 or<br>PL 216* or<br>PY 121 or<br>EC 252 or<br>EC 253 or<br>Foreign Language | Western Civilization to 1700 or  Western Civilization Since 1700* or Intro to World Geography or Intro to Philosophy or National Government* or General Psychology or Microeconomics or Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.  | 6  | HISTORY 1100 or<br>HISTORY 1200* or<br>HISTORY 2110 or<br>PHILOS 1105 or<br>POL SCI 1200* or<br>PSYCH 1101 or<br>ECON 1100 or<br>ECON 1200 or<br>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                   |
|  |   |  | nd Social Sciences  |  |                     |
| HASS Elective  | Humanities, Arts, Social Sciences Elective: Any histo<br>music, theater, English and technical communication,<br>philosophy, political science, psychology, economics,<br>etymology, or foreign language.   | Select 3<br>ory, art,<br>3   | 3 nours.  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<br>23<br>28<br>otal Hours 51   |   | 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<br>23<br>23<br>46 |