

Eastern Illinois University — Missouri S&T

General Engineering Transfer Guide

Effective as of Fall 2021

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.

| Eastern Illinois University | | | Semester | Missouri S&T | | |
|--|--|----|----------------------------------|---|-----------------------------------|--------------------|
| MAT 1441G | Calculus and Analytical Geometry I | 5 | MATH 1214 | Calculus for Engineers I | Grade of C or better is required. | 4 |
| MAT 2442 | Calculus and Analytical Geometry II | 5 | MATH 1215 | Calculus for Engineers II | Grade of C or better is required. | 4 |
| MAT 2443 | Calculus and Analytical Geometry III | 4 | MATH 2222 | Calculus with Analytic Geometry III | Grade of C or better is required. | 4 |
| MAT 3501 | Differential Equations | 3 | MATH 3304 | Elementary Differential Equations | | 3 |
| PHY 1351G, 1352G and PHY 1361, 1362 and PHY 1371, 1372 | General Physics I and Lab and General Physics II and Lab and General Physics III and Lab <small>EIU PHY 1351G, 1352G, 1361, 1362, 1371, 1372 must all be taken to receive credit for S&T PHYSICS 1135 and 2135.</small> | 12 | PHYSICS 1135 and PHYSICS 2135 | Engineering Physics I and Engineering Physics II | Grade of C or better is required. | 4 |
| CHM 1310G, 1315G | General Chemistry I and Lab | 4 | CHEM 1310, 1319 | General Chemistry I and Lab | | 5 |
| PHY 1000 | Engineering Orientation | 1 | FR ENG 1100 | Study and Careers in Engineering | | 1 |
| INT 2043 | Computer-Aided Engineering Graphics | 3 | MECH ENG 1720 | Engineering Design with Computer Appl | | 3 |
| ENG 1001G | Composition and Language | 3 | ENGLISH 1120 | Exposition and Argumentation | | 3 |
| ECN 2801G or ECN 2802G | Principles of Microeconomics or Principles of Macroeconomics | 3 | ECON 1100 or ECON 1200 | Principles of Microeconomics or Principles of Macroeconomics | | 3 |
| Total Hours | | | 43 | | | Total Hours |
| | | | | | | 34 |

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.

| | |
|---|---|
| <p style="text-align: center;">Aerospace Engineering</p> <p style="text-align: center;">Architectural Engineering</p> <p style="text-align: center;">Ceramic Engineering</p> <p style="text-align: center;">Chemical Engineering</p> <p style="text-align: center;">Chemical Engineering/Biochemistry Emphasis</p> <p style="text-align: center;">Civil Engineering</p> <p style="text-align: center;">Computer Engineering</p> <p style="text-align: center;">Electrical Engineering</p> | <p style="text-align: center;">Engineering Management</p> <p style="text-align: center;">Environmental Engineering</p> <p style="text-align: center;">Geological Engineering</p> <p style="text-align: center;">Mechanical Engineering</p> <p style="text-align: center;">Metallurgical Engineering</p> <p style="text-align: center;">Mining Engineering</p> <p style="text-align: center;">Nuclear Engineering</p> <p style="text-align: center;">Petroleum Engineering</p> |
|---|---|

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 history, economics, political science, sociology, psychology, philosophy, fine art, literature, or foreign language. Missouri S&T approved HSS courses are listed at ugs.mst.edu. Your campus may have additional acceptable options. Consult with your advisor or email transfer@mst.edu with questions.

Aerospace Engineering Group 2 Major Requirements

| Eastern Illinois University | | Semester | Missouri S&T | | |
|---|--|----------|---|--|----|
| HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C | History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov. | 3 | HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200 | American History to 1877 or American History since 1877 or Modern Western Civilization or American Government | 3 |
| ENG 1002G or CMN 1310G | Composition and Literature or Intro to Speech Communication | 3 | ENGLISH 1160 or SPMS 1185 | Writing and Research or Principles of Speech | 3 |
| PHY 3270 | Intro to Circuit Analysis | 3 | EE 2800 | Circuit Analysis I | 3 |
| PHY 2390 | Statics | 3 | CIV ENG 2200 | Engineering Mechanics-Statics | 3 |
| MAT 2550 | Introduction to Linear Algebra | 3 | MATH 3108 | Linear Algebra I | 3 |
| ENG 3903A or ENG 390B or ENG 2705 | Women, Literature, and Language, Pre-1800 or Women, Literature, and Language, Post-1800 or African-American Literature (or other literature elective) | 3 | ENGLISH 2242 or ENGLISH 2245 | Literature by Women or African American Literature (or other literature elective) | 3 |
| | Ethics Elective | 3 | | Ethics Elective | 3 |
| | <i>No free electives applied to the degree.</i> | 0 | | Maximum Free Electives | 0 |
| | Group 2 Major Requirements | 21 | | Group 2 Major Requirements | 21 |
| | Group 1 Core Requirements | 43 | | Group 1 Core Requirements | 34 |
| | Total Hours | 64 | | Total Hours* | 55 |

*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

| Eastern Illinois University | | Semester | Missouri S&T | | |
|---|---|----------|---|---|----|
| PLS 1153G or HIS 2010 or HIS 2020 | American Government and Constitution or History of US to 1877 or History of US Since 1877 | 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> | 3 |
| PHY 2390 | Statics | 3 | CIV ENG 2200 | Engineering Mechanics-Statics | 3 |
| PHY 2400 | Dynamics | 3 | MECH ENG 2350 | Engineering Mechanics-Dynamics | 3 |
| ENG 1002G or CMN 130G or HSS Elective | Composition and Literature or Intro to Speech Communication or Humanities/Social Science Elective: 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 Public Speaking or Humanities/Social Science Elective: 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 | 43 | | Group 1 Core Requirements | 34 |
| | Total Hours | 55 | | Total Hours* | 46 |

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

Ceramic Engineering Group 2 Major Requirements

| Eastern Illinois University | | Semester | Missouri S&T | | |
|---|---|----------|---|---|----|
| HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C | History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov. | 3 | HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200 | American History to 1877 or American History since 1877 or Modern Western Civilization or American Government | 3 |
| PHY 2390 | Statics | 3 | CIV ENG 2200 | Engineering Mechanics-Statics | 3 |
| CHM 2440, 2445 | Organic Chemistry I and Lab | 4 | CHEM 2210 or CHEM 2219 | Organic Chemistry I (4) or Organic Chemistry I Lab | 5 |
| CHM 1410, 1415 | General Chemistry II and Lab | 4 | CHEM 1320 | General Chemistry II | 3 |
| ENG 1002G or CMN 130G or HSS Elective | Composition and Literature or Intro to Speech Communication or Humanities/Social Science Elective: 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 Public Speaking or Humanities/Social Science Elective: history, economics, political science, sociology, psychology, philosophy, fine art, literature, foreign language | 3 |
| | <i>See your advisor for course options.</i> | | | Humanities/Social Science Elective | 3 |
| | <i>No free electives applied to the degree.</i> | 0 | | Maximum Free Electives | 0 |
| | Group 2 Major Requirements | 17 | | Group 2 Major Requirements | 20 |
| | Group 1 Core Requirements | 43 | | Group 1 Core Requirements | 34 |
| | Total Hours | 60 | | Total Hours* | 54 |

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

Chemical Engineering Group 2 Major Requirements

| <u>Eastern Illinois University</u> | | <u>Semester</u> | <u>Missouri S&T</u> | | |
|---|---|-----------------|---|--|----|
| ENG 1002G | Composition and Literature | 3 | ENGLISH 1160 | Writing and Research | 3 |
| HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C | History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov. | 3 | HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200 | American History to 1877 or American History since 1877 or Modern Western Civilization or American Government | 3 |
| CHM 1410, 1415 | General Chemistry II and Lab | 4 | CHEM 1320 | General Chemistry II | 3 |
| CHM 2440, 2445 | Organic Chemistry I and Lab | 4 | CHEM 2210 | Organic Chemistry I | 4 |
| CHM 2840, 2845 | Organic Chemistry II and Lab | 4 | CHEM 2220, 2219 | Organic Chemistry II and Lab (4) | 4 |
| | Humanities/Social Science Elective | 3 | | Humanities/Social Science Elective | 3 |
| | Humanities/Social Science Elective | 3 | | Humanities/Social Science Elective | 3 |
| | <i>No free electives applied to the degree.</i> | 0 | | Maximum Free Electives | 0 |
| | Group 2 Major Requirements | 24 | | Group 2 Major Requirements | 23 |
| | Group 1 Core Requirements | 43 | | Group 1 Core Requirements | 34 |
| | Total Hours | 67 | | Total Hours* | 57 |

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

Chemical Engineering - Biochemical Engineering Emphasis

| <u>Eastern Illinois University</u> | | <u>Semester</u> | <u>Missouri S&T</u> | | |
|---|---|-----------------|---|--|----|
| ENG 1002G | Composition and Literature | 3 | ENGLISH 1160 or ENGLISH 3560 | Writing and Research or Technical Writing | 3 |
| HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C | History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov. | 3 | HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200 | American History to 1877 or American History since 1877 or Modern Western Civilization or American Government | 3 |
| CHM 1410, 1415 | General Chemistry II and Lab | 4 | CHEM 1320 | General Chemistry II | 5 |
| CHM 2440, 2445 | Organic Chemistry I and Lab | 4 | CHEM 2210 | Organic Chemistry I | 3 |
| CHM 2840, 2845 | Organic Chemistry II and Lab | 4 | CHEM 2220, 2219 | Organic Chemistry II and Lab (4) | 3 |
| | Humanities/Social Science Elective | 3 | | Humanities/Social Science Elective | 3 |
| | Humanities/Social Science Elective | 3 | | Humanities/Social Science Elective | 3 |
| | <i>No free electives applied to the degree.</i> | 0 | | Maximum Free Electives | 0 |
| | Group 2 Major Requirements | 24 | | Group 2 Major Requirements | 23 |
| | Group 1 Core Requirements | 43 | | Group 1 Core Requirements | 34 |
| | Total Hours | 67 | | Total Hours* | 57 |

*S&T advisor permission is required to transfer more than 71 credits toward the S&T Chemical/Biochemical Engineering degree.

Civil Engineering Group 2 Major Requirements

| <u>Eastern Illinois University</u> | | <u>Semester</u> | <u>Missouri S&T</u> | | |
|---|---|-----------------|---|--|----|
| ENG 1002G or CMN 1310G | Composition and Literature or Intro to Speech Communication | 3 | ENGLISH 1160 or SPMS 1185 | Writing and Research or Public Speaking | 3 |
| HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C | History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov. | 3 | HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200 | American History to 1877 or American History since 1877 or Modern Western Civilization or American Government | 3 |
| GEL 1300 or GEL 1400 | Earth Science or Physical Geology | 4 | GEOLOGY 1110 (GEO ENG 1150) | Physical and Environmental Geology | 3 |
| PHY 2390 | Statics | 3 | CIV ENG 2200 | Engineering Mechanics-Statics | 3 |
| PHY 2400 | Dynamics | 3 | MECH ENG 2350 | Engineering Mechanics-Dynamics | 3 |
| | Humanities/Social Science Elective | 3 | | Humanities/Social Science Elective | 3 |
| | <i>No free electives applied to the degree.</i> | 0 | | Maximum Free Electives | 0 |
| | Group 2 Major Requirements | 19 | | Group 2 Major Requirements | 18 |
| | Group 1 Core Requirements | 43 | | Group 1 Core Requirements | 34 |
| | Total Hours | 62 | | Total Hours* | 52 |

*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>Eastern Illinois University</u> | | <u>Semester</u> | <u>Missouri S&T</u> | | |
|---|---|-----------------|---|---|----|
| CMN 1310G | Intro to Speech Communication | 3 | SPMS 1185 | Public Speaking | 3 |
| ENG 1002G | Composition and Literature | 3 | ENGLISH 1160 | Writing and Research | 3 |
| HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C | History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov. | 3 | HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200 | American History to 1877 or American History since 1877 or Modern Western Civilization or American Government | 3 |
| PHY 2390 and PHY 2400 | Statics and Dynamics | 6 | CIV ENG 2200 and MECH ENG 2350 | Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (3) <small>(Both courses combined will satisfy a required engineering science elective.)</small> | 6 |
| PHY 3270 | Intro to Circuit Analysis | 3 | EE 2100** | Circuits I **A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for EE 2100. | 3 |
| MAT 2550 | Intro to Linear Algebra | 3 | MATH 3108 | Linear Algebra <small>(Will satisfy a required math elective.)</small> | 3 |
| | Humanities/Social Science Elective | 3 | | Humanities/Social Science Elective | 3 |
| | <i>See your advisor for course options.</i> | 3 | | Maximum Free Electives | 3 |
| | Group 2 Major Requirements | 27 | | Group 2 Major Requirements | 27 |
| | Group 1 Core Requirements | 43 | | Group 1 Core Requirements | 34 |
| | Total Hours | 70 | | Total Hours* | 61 |

*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>Eastern Illinois University</u> | | <u>Semester</u> | <u>Missouri S&T</u> | | |
|---|---|-----------------|---|---|----|
| CMN 1310G | Intro to Speech Communication | 3 | SPMS 1185 | Public Speaking | 3 |
| ENG 1002G | Composition and Literature | 3 | ENGLISH 1160 | Writing and Research | 3 |
| HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C | History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov. | 3 | HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200 | American History to 1877 or American History since 1877 or Modern Western Civilization or American Government | 3 |
| PHY 2390 and PHY 2400 | Statics and Dynamics | 6 | CIV ENG 2200 and MECH ENG 2350 | Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (3) <small>(Both courses combined will satisfy a required engineering science elective.)</small> | 6 |
| PHY 3270 | Intro to Circuit Analysis | 3 | EE 2100** | Circuits I **A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for EE 2100. | 3 |
| MAT 2550 | Intro to Linear Algebra | 3 | MATH 3108 | Linear Algebra | 3 |
| | Humanities/Social Science Elective | 3 | | Humanities/Social Science Elective | 3 |
| | <i>See your advisor for course options.</i> | 3 | | Maximum Free Electives | 3 |
| | Group 2 Major Requirements | 27 | | Group 2 Major Requirements | 27 |
| | Group 1 Core Requirements | 43 | | Group 1 Core Requirements | 34 |
| | Total Hours | 70 | | Total Hours* | 61 |

*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>Eastern Illinois University</u> | | <u>Semester</u> | <u>Missouri S&T</u> | | |
|---|---|-----------------|---|--|----|
| PSY 1879G | Introductory Psychology | 3 | PSYCH 1101 | General Psychology | 3 |
| HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C | History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov. | 3 | HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200 | American History to 1877 or American History since 1877 or Modern Western Civilization or American Government | 3 |
| ENG 1002G or CMN 1310G | Composition and Literature or Intro to Speech Communication | 3 | ENGLISH 1160 or SPMS 1185 | Writing and Research or Principles of Speech | 3 |
| PHY 3270 | Intro to Circuit Analysis | 3 | EE 2800 | Circuit Analysis I | 3 |
| PHY 2390 | Statics | 3 | CIV ENG 2200 | Engineering Mechanics-Statics | 3 |
| PHY 2400 | Dynamics | 3 | MECH ENG 2350 | Engineering Mechanics-Dynamics | 3 |
| | Humanities/Social Science Elective | 3 | | Humanities/Social Science Elective | 3 |
| | <i>See your advisor for course options.</i> | 3 | | Maximum Free Electives | 3 |
| | Group 2 Major Requirements | 24 | | Group 2 Major Requirements | 24 |
| | Group 1 Core Requirements | 43 | | Group 1 Core Requirements | 34 |
| | Total Hours | 67 | | Total Hours* | 58 |

*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

| Eastern Illinois University | | Semester | Missouri S&T | | |
|---|---|----------|--|--|----|
| ENG 1002G or CMN 1310G | Composition and Literature or Intro to Speech Communication | 3 | ENGLISH 1160 or SPMS 1185 | Writing and Research or Public Speaking | 3 |
| HIS 2010 or HIS 2020 or PLS 1153G | History of US to 1877 or History of US Since 1877 or American Government and Constitution | 3 | HISTORY 1300 or HISTORY 1310 or HISTORY 1200 | American History to 1877 or American History since 1877 or Modern Western Civilization | 3 |
| GEL 1300 or GEL 1400 | Earth Science or Physical Geology | 4 | GEOLOGY 1110 (GEO ENG 1150) | Physical and Environmental Geology | 3 |
| CHM 1410, 1415 | General Chemistry II and Lab | 4 | CHEM 1320 | General Chemistry II | 3 |
| BIO 1010 | General Biology | 4 | BIO SCI 1113 | General Biology | 4 |
| PHY 2390 | Statics | 3 | CIV ENG 2200 | Engineering Mechanics-Statics | 3 |
| PHY 2400 | Dynamics | 3 | MECH ENG 2350 | Engineering Mechanics-Dynamics | 3 |
| | Humanities/Social Science Elective | 3 | | Humanities/Social Science Elective | 3 |
| | <i>No free electives applied to the degree.</i> | 0 | | Maximum Free Electives | 0 |
| | Group 2 Major Requirements | 27 | | Group 2 Major Requirements | 25 |
| | Group 1 Core Requirements | 43 | | Group 1 Core Requirements | 34 |
| | Total Hours | 70 | | Total Hours* | 59 |

*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

| Eastern Illinois University | | Semester | Missouri S&T | | |
|---|---|----------|---|--|----|
| ENG 1002G or CMN 1310G | Composition and Literature or Intro to Speech Communication | 3 | ENGLISH 1160 or SPMS 1185 | Writing and Research or Public Speaking | 3 |
| HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C | History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov. | 3 | HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200 | American History to 1877 or American History since 1877 or Modern Western Civilization or American Government | 3 |
| GEL 1300 or GEL 1400 | Earth Science or Physical Geology | 4 | GEO ENG 1150 (GEOLOGY 1110) | Physical and Environmental Geology | 3 |
| PHY 2390 | Statics | 3 | CIV ENG 2200 | Engineering Mechanics-Statics | 3 |
| PHY 2400 | Dynamics | 3 | MECH ENG 2350 | Engineering Mechanics-Dynamics | 3 |
| BIO 1010 or CHM 2440, 2445 or CHM 2840, 2845 | General Biology or Organic Chemistry I and Lab or Organic Chemistry II and Lab | 4 | BIO SCI 1113 or CHEM 1320 or CHEM 2210 | General Biology or General Chemistry II or Organic Chemistry I | 3 |
| | Humanities/Social Science Elective | 3 | | Humanities/Social Science Elective | 3 |
| | Humanities/Social Science Elective | 3 | | Humanities/Social Science Elective | 3 |
| | <i>No free electives applied to the degree.</i> | 0 | | Maximum Free Electives | 0 |
| | Group 2 Major Requirements | 26 | | Group 2 Major Requirements | 24 |
| | Group 1 Core Requirements | 43 | | Group 1 Core Requirements | 34 |
| | Total Hours | 69 | | Total Hours* | 58 |

*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

| Eastern Illinois University | | Semester | Missouri S&T | | |
|---|---|----------|---|--|----|
| HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C | History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov. | 3 | HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200 | American History to 1877 or American History since 1877 or Modern Western Civilization or American Government | 3 |
| ENG 1002G or CMN 1310G | Composition and Literature or Intro to Speech Communication | 3 | ENGLISH 1160 or SPMS 1185 | Writing and Research or Principles of Speech | 3 |
| PHY 3270 | Intro to Circuit Analysis | 3 | EE 2800 | Circuit Analysis I | 3 |
| PHY 2390 | Statics | 3 | CIV ENG 2200 | Engineering Mechanics-Statics | 3 |
| PHY 2400 | Dynamics | 3 | MECH ENG 2360 | Dynamics | 3 |
| MAT 2550 | Intro to Linear Algebra | 3 | MATH 3108 | Linear Algebra I <small>(Will satisfy the Advanced Math/Computer Science elective requirement.)</small> | 3 |
| ENG 3903A or ENG 390B or ENG 2705 | Women, Literature, and Language, Pre-1800 or Women, Literature, and Language, Post-1800 or African-American Literature <small>(or other literature elective)</small> | 3 | ENGLISH 2242 or ENGLISH 2245 | Literature by Women or African American Literature <small>(or other literature elective)</small> | 3 |
| | Humanities/Social Science Elective | 3 | | Humanities/Social Science Elective | 3 |
| | <i>No free electives applied to the degree.</i> | 0 | | Maximum Free Electives | 0 |
| | Group 2 Major Requirements | 24 | | Group 2 Major Requirements | 24 |
| | Group 1 Core Requirements | 43 | | Group 1 Core Requirements | 34 |
| | Total Hours | 67 | | Total Hours* | 58 |

*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

| Eastern Illinois University | | Semester | Missouri S&T | | |
|---|---|----------|---|--|----------------------|
| ENG 1002G or CMN 1310G | Composition and Literature or Intro to Speech Communication | 3 | ENGLISH 1160 or SPMS 1185 | Writing and Research or Principles of Speech | 3 |
| HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C | History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov. | 3 | HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200 | American History to 1877 or American History since 1877 or Modern Western Civilization or American Government | 3 |
| PHY 2390 | Statics | 3 | CIV ENG 2200 | Engineering Mechanics-Statics | 3 |
| CHM 1410,1415 | General Chemistry II and Lab | 4 | CHEM 1320 | General Chemistry II | 3 |
| CHM 2440, 2445 or PHY 3270 | Organic Chemistry I and Lab or Intro to Circuit Analysis | 4 | CHEM 2210 or EE 2800 | Organic Chemistry I (4) or Circuits (3) <small>Not specifically required for the degree but will satisfy Out-of-Department Technical Elective Requirement.</small> | 3 Electrical 3 |
| | Humanities/Social Science Elective | 3 | | Humanities/Social Science Elective | 3 |
| | Humanities/Social Science Elective | 3 | | Humanities/Social Science Elective | 3 |
| | <i>See your advisor for course options.</i> | 5 | | Maximum Free Electives | 5 |
| | Group 2 Major Requirements | 28 | | Group 2 Major Requirements | 26 |
| | Group 1 Core Requirements | 43 | | Group 1 Core Requirements | 34 |
| | Total Hours | 71 | | Total Hours* | 60 |

*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

| Mining Engineering Group 2 Major Requirements | | | | | |
|---|---|----------|---|--|----|
| Eastern Illinois University | | Semester | Missouri S&T | | |
| ENG 1002G or CMN 1310G | Composition and Literature or Intro to Speech Communication | 3 | ENGLISH 1160 or SPMS 1185 | Writing and Research or Principles of Speech | 3 |
| HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C | History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov. | 3 | HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200 | American History to 1877 or American History since 1877 or Modern Western Civilization or American Government | 3 |
| PHY 2390 | Statics | 3 | CIV ENG 2200* | Engineering Mechanics-Statics | 3 |
| PHY 2400 | Dynamics | 3 | MECH ENG 2350 | Engineering Mechanics-Dynamics | 3 |
| GEL 1300 or GEL 1400 | Earth Science or Physical Geology | 4 | GEOLOGY 1110 (GEO ENG 1150) | Physical and Environmental Geology | 3 |
| | Humanities/Social Science Elective | 3 | | Humanities/Social Science Elective | 3 |
| | Humanities/Social Science Elective | 3 | | Humanities/Social Science Elective | 3 |
| | <i>No free electives applied to the degree.</i> | 0 | | Maximum Free Electives | 0 |
| | Group 2 Major Requirements | 22 | | Group 2 Major Requirements | 21 |
| | Group 1 Core Requirements | 43 | | Group 1 Core Requirements | 34 |
| | Total Hours | 65 | | Total Hours* | 55 |

*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

| Nuclear Engineering Group 2 Major Requirements | | | | | |
|---|---|----------|---|--|----|
| Eastern Illinois University | | Semester | Missouri S&T | | |
| ENG 1002G | Composition and Literature | 3 | ENGLISH 1160 | Writing and Research | 3 |
| HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C | History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov. | 3 | HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200 | American History to 1877 or American History since 1877 or Modern Western Civilization or American Government | 3 |
| PHY 2390 | Statics | 3 | CIV ENG 2200 | Engineering Mechanics-Statics | 3 |
| | Humanities/Social Science Elective | 3 | | Humanities/Social Science Elective | 3 |
| | Humanities/Social Science Elective | 3 | | Humanities/Social Science Elective | 3 |
| | <i>See your advisor for course options.</i> | 6 | | Maximum Free Electives | 6 |
| | Group 2 Major Requirements | 21 | | Group 2 Major Requirements | 21 |
| | Group 1 Core Requirements | 43 | | Group 1 Core Requirements | 34 |
| | Total Hours | 64 | | Total Hours* | 55 |

*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

| Petroleum Engineering Group 2 Major Requirements | | | | | |
|---|---|----------|---|--|----|
| Eastern Illinois University | | Semester | Missouri S&T | | |
| ENG 1002G | Composition and Literature | 3 | ENGLISH 1160 | Writing and Research | 3 |
| HIS 2010 or HIS 2020 or PLS 1153G or HIS 3600C | History of US to 1877 or History of US Since 1877 or American Government and Constitution or US Constitution/National Gov. | 3 | HISTORY 1300 or HISTORY 1310 or HISTORY 1200 or POL SCI 1200 | American History to 1877 or American History since 1877 or Modern Western Civilization or American Government | 3 |
| GEL 1300 or GEL 1400 | Earth Science or Physical Geology | 4 | GEOLOGY 1110 (GEO ENG 1150) | Physical and Environmental Geology | 3 |
| PHY 2390 | Statics | 3 | CIV ENG 2200 | Engineering Mechanics-Statics | 3 |
| PHY 2400 | Dynamics | 3 | MECH ENG 2350 | Engineering Mechanics-Dynamics | 3 |
| | Humanities/Social Science Elective | 3 | | Humanities/Social Science Elective | 3 |
| | Humanities/Social Science Elective | 3 | | Humanities/Social Science Elective | 3 |
| | <i>No free electives applied to the degree.</i> | 0 | | Maximum Free Electives | 0 |
| | Group 2 Major Requirements | 22 | | Group 2 Major Requirements | 21 |
| | Group 1 Core Requirements | 43 | | Group 1 Core Requirements | 34 |
| | Total Hours | 65 | | Total Hours* | 55 |

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