

Southwest Baptist University — Missouri S&T

General Engineering Transfer Guide

Effective as of Fall 2020

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

Group 1 - Core Requirements: All Majors Take All Courses

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

| <u>Southwest Baptist University</u> | | <u>Semester</u> | <u>Missouri S&T</u> | | |
|-------------------------------------|---|-----------------|---------------------------|---|----|
| MAT 1195 | Calculus I | 5 | MATH 1214 | Calculus for Engineers I | 4 |
| MAT 2255 | Calculus II | 4 | MATH 1215 | Calculus for Engineers II | 4 |
| MAT 2263 | Calculus III | 3 | MATH 2222 | Calculus with Analytic Geometry III | 4 |
| MAT 3363 | Differential Equations | 3 | MATH 3304 | Elementary Differential Equations | 3 |
| PHY 2215 | University Physics I | 5 | PHYSICS 1135 | Engineering Physics I | 4 |
| PHY 2225 | University Physics II | 5 | PHYSICS 2135 | Engineering Physics II | 4 |
| CHE 1115 | General Chemistry I | 5 | CHEM 1310, 1319 | General Chemistry I and Lab | 5 |
| ENG 1113 | English Composition I | 3 | ENGLISH 1120 | Exposition and Argumentation | 3 |
| ECO 2023 or ECO 2033 | Principles of Microeconomics or Principles of Macroeconomics | 3 | ECON 1100 or ECON 1200 | Principles of Microeconomics or Principles of Macroeconomics | 3 |
| Total Hours | | 36 | 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.

Aerospace Engineering
Architectural Engineering
Ceramic Engineering
Chemical Engineering
Chemical Engineering/Biochemistry Emphasis
Civil Engineering
Computer Engineering
Electrical Engineering

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

Engineering Major Requirements are detailed on the following pages.

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

Humanities/Social Science (HSS) Electives: HSS electives may include any 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

| Aerospace Engineering Group 2 Major Requirements | | | | | |
|---|--|-----------------|---|--|----|
| | <u>Southwest Baptist University</u> | <u>Semester</u> | | <u>Missouri S&T</u> | |
| HIS 2213 or HIS 2223 or HIS 1123 or POL 1113 | History of US 1492-1865 or History of US 1865-Present or Intro to History of World Civilization or American Government and Politics | 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 2213 or COM 1103 or ENG 4003 | English Composition II or Fundamentals of Speech or Technical Writing | 3 | ENGLISH 1160 or SPMS 1185 or ENGLISH 3560 | Writing and Research or Principles of Speech or Technical Writing | 3 |
| PHY 3233 | Statics | 3 | CIV ENG 2200 | Engineering Mechanics-Statics | 3 |
| MAT 3323 | Linear Algebra | 3 | MATH 3108 | Linear Algebra I (Will satisfy the Advanced Math/Comp Sci elective requirement.) | 3 |
| | Literature Elective | 3 | | 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 | 18 | | Group 2 Major Requirements | 18 |
| | Group 1 Core Requirements | 36 | | Group 1 Core Requirements | 34 |
| | Total Hours | 54 | | Total Hours* | 52 |

*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

| Architectural Engineering Group 2 Major Requirements | | | | | |
|--|---|-----------------|---|---|----|
| | <u>Southwest Baptist University</u> | <u>Semester</u> | | <u>Missouri S&T</u> | |
| HIS 2213 (or HIS 2223 or HIS 1123) | History of US 1492-1865 (or History of US 1865-Present or Intro to History of World Civilization) <small>*HIS 2213 is preferred; 2223 or 1123 will also be accepted.</small> | 3 | HISTORY 1200* (or HISTORY 1300 or HISTORY 1310) | Modern Western Civilization* (or American History to 1877 or American History since 1877) <small>*HISTORY 1200 is preferred; 1300 or 1310 will also be accepted.</small> | 3 |
| PHY 3233 | Statics | 3 | CIV ENG 2200 | Engineering Mechanics-Statics | 3 |
| PHY 4233 | Dynamics | 3 | MECH ENG 2350 | Engineering Mechanics-Dynamics | 3 |
| ENG 2213 or COM 1103 or HSS Elective | English Composition II or Fundamentals of 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 | 36 | | Group 1 Core Requirements | 34 |
| | Total Hours | 48 | | 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

| <u>Southwest Baptist University</u> | | <u>Semester</u> | <u>Missouri S&T</u> | |
|---|--|-----------------|---|---|
| HIS 2213 or HIS 2223 or HIS 1123 or POL 1113 | History of US 1492-1865 or History of US 1865-Present or Intro to History of World Civilization or American Government and Politics | 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 |
| PHY 3233 | Statics | 3 | CIV ENG 2200 | Engineering Mechanics-Statics |
| CHE 3304 | Organic Chemistry | 4 | CHEM 2210/2219 | Organic Chemistry I and Lab <small>(Not a specific requirement. Will satisfy technical elective requirement.)</small> |
| CHE 1125 | General Chemistry II | 5 | CHEM 1320 | General Chemistry II |
| PHY 3363 | Modern Physics | 3 | PHYS 2305 | Intro to Modern Physics |
| ENG 2213 or COM 1103 or HSS Elective | English Composition II or Fundamentals of 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 |
| | <i>See your advisor for course options.</i> | 3 | | Humanities/Social Science Elective |
| | <i>No free electives applied to the degree.</i> | 0 | | Maximum Free Electives |
| | Group 2 Major Requirements | 24 | | Group 2 Major Requirements |
| | Group 1 Core Requirements | 36 | | Group 1 Core Requirements |
| | Total Hours | 60 | | Total Hours* |
| | | | | 57 |

*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>Southwest Baptist University</u> | | <u>Semester</u> | <u>Missouri S&T</u> | |
|---|--|-----------------|---|--|
| ENG 2213 or ENG 4003 | English Composition II or Technical Writing | 3 | ENGLISH 1160 or ENGLISH 3560 | Writing and Research or Technical Writing |
| HIS 2213 or HIS 2223 or HIS 1123 or POL 1113 | History of US 1492-1865 or History of US 1865-Present or Intro to History of World Civilization or American Government and Politics | 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 |
| CHE 1125 | General Chemistry II | 5 | CHEM 1320 | General Chemistry II |
| CHE 3304 | Organic Chemistry | 4 | CHEM 2210 | Organic Chemistry I |
| CHE 3314 | Organic Chemistry II | 4 | CHEM 2220 | Organic Chemistry II <small>(Will satisfy science elective requirement.)</small> |
| CIS 1033 | Foundations of Computer Science | 3 | CS 1500 | Computational Problem Solving |
| COM 1103 | Fundamentals of Speech Communication | 3 | SP&MS 1185 | Principles of Speech |
| | <i>See your advisor for course options.</i> | 3 | | Humanities/Social Science Elective |
| | <i>No free electives applied to the degree.</i> | 0 | | Maximum Free Electives |
| | Group 2 Major Requirements | 28 | | Group 2 Major Requirements |
| | Group 1 Core Requirements | 36 | | Group 1 Core Requirements |
| | Total Hours | 64 | | Total Hours* |
| | | | | 60 |

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

Chemical Engineering - Biochemical Engineering Emphasis Group 2 Major Requirements

| <u>Southwest Baptist University</u> | | <u>Semester</u> | <u>Missouri S&T</u> | | |
|---|--|-----------------|---|--|----|
| ENG 2213 or ENG 4003 | English Composition II or Technical Writing | 3 | ENGLISH 1160 or ENGLISH 3560 | Writing and Research or Technical Writing | 3 |
| HIS 2213 or HIS 2223 or HIS 1123 or POL 1113 | History of US 1492-1865 or History of US 1865-Present or Intro to History of World Civilization or American Government and Politics | 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 |
| CHE 1125 | General Chemistry II | 5 | CHEM 1320 | General Chemistry II | 5 |
| CHE 3304 | Organic Chemistry | 4 | CHEM 2210 | Organic Chemistry I | 3 |
| CHE 3314 | Organic Chemistry II | 4 | CHEM 2220 | Organic Chemistry II (Will satisfy science elective requirement.) | 3 |
| CIS 1033 | Foundations of Computer Science | 3 | CS 1500 | Computational Problem Solving | 3 |
| COM 1103 | Fundamentals of Speech Communication | 3 | SP&MS 1185 | Principles of Speech | 3 |
| | <i>See your advisor for course options.</i> | 3 | | Humanities/Social Science Elective | 3 |
| | <i>No free electives applied to the degree.</i> | 0 | | Maximum Free Electives | 0 |
| | Group 2 Major Requirements | 28 | | Group 2 Major Requirements | 26 |
| | Group 1 Core Requirements | 36 | | Group 1 Core Requirements | 34 |
| | Total Hours | 64 | | Total Hours* | 60 |

*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>Southwest Baptist University</u> | | <u>Semester</u> | <u>Missouri S&T</u> | | |
|---|--|-----------------|---|--|----|
| ENG 2213 or COM 1103 or ENG 4003 | English Composition II or Fundamentals of Speech or Technical Writing | 3 | ENGLISH 1160 or SPMS 1185 or ENGLISH 3560 | Writing and Research or Public Speaking or Technical Writing | 3 |
| HIS 2213 or HIS 2223 or HIS 1123 or POL 1113 | History of US 1492-1865 or History of US 1865-Present or Intro to History of World Civilization or American Government and Politics | 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 3233 | Statics | 3 | CIV ENG 2200 | Engineering Mechanics-Statics | 3 |
| PHY 4233 | Dynamics | 3 | MECH ENG 2350 | Engineering Mechanics-Dynamics | 3 |
| | <i>See your advisor for course options.</i> | 3 | | Humanities/Social Science Elective | 3 |
| | <i>No free electives applied to the degree.</i> | 0 | | Maximum Free Electives | 0 |
| | Group 2 Major Requirements | 15 | | Group 2 Major Requirements | 15 |
| | Group 1 Core Requirements | 36 | | Group 1 Core Requirements | 34 |
| | Total Hours | 51 | | Total Hours* | 49 |

*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>Southwest Baptist University</u> | | <u>Semester</u> | <u>Missouri S&T</u> | | |
|---|---|-----------------|--|---|-----|
| COM 1103 | Fundamentals of Speech Communication | 3 | SPMS 1185 | Public Speaking | 3 |
| ENG 2213 or ENG 4003 | English Composition II or Technical Writing | 3 | ENGLISH 1160 or ENGLISH 3560 | Writing and Research or Technical Writing | 3 |
| HIS 2213 or HIS 2223 or HIS 1123 or POL 1113 | History of US 1492-1865 or History of US 1865-Present or Intro to History of World Civilization or American Government and Politics | 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 |
| CIS 1033 | Foundations of Computer Science | 3 | CS 1500 | Computational Problem Solving | 3 |
| PHY 3233 and PHY 4233 (BOTH of the courses above or ONE of the courses below.) | Statics (3) and Dynamics (3) (Both courses above combined or any one of the following courses will satisfy a required engineering science elective.) | 3-6 | CIV ENG 2200 and MECH ENG 2350 (BOTH of the courses above or ONE of the courses below.) | Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (3) (Both courses above combined or any one of the following courses will satisfy a required engineering science elective.) | 3-6 |
| OR | OR | | OR | OR | |
| PHY 3363 or CHE 3304 or BIO 3324 | Modern Physics I (3) Organic Chemistry I (4) or Genetics (4) | | PHYSICS 2311 or CHEM 2210 or BIO SCI 2223 | Modern Physics I (3) Organic Chemistry I (4) or General Genetics (3) | |
| MAT 3323 | Linear Algebra | 3 | MATH 3108 | Linear Algebra (Will satisfy a required math elective.) | 3 |
| | See your advisor for course options. | 3 | | Humanities/Social Science Elective | 3 |
| | See your advisor for course options. | 3 | | Maximum Free Electives | 3 |
| | Group 2 Major Requirements | 24 | | Group 2 Major Requirements | 24 |
| | Group 1 Core Requirements | 36 | | Group 1 Core Requirements | 34 |
| | Total Hours | 60 | | Total Hours* | 58 |

*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>Southwest Baptist University</u> | | <u>Semester</u> | <u>Missouri S&T</u> | | |
|---|---|-----------------|--|---|-----|
| COM 1103 | Fundamentals of Speech Communication | 3 | SPMS 1185 | Public Speaking | 3 |
| ENG 2213 or ENG 4003 | English Composition II or Technical Writing | 3 | ENGLISH 1160 or ENGLISH 3560 | Writing and Research or Technical Writing | 3 |
| HIS 2213 or HIS 2223 or HIS 1123 or POL 1113 | History of US 1492-1865 or History of US 1865-Present or Intro to History of World Civilization or American Government and Politics | 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 3233 and PHY 4233 (BOTH of the courses above or ONE of the courses below.) | Statics (3) and Dynamics (3) (Both courses above combined or any one of the following courses will satisfy a required engineering science elective.) | 3-6 | CIV ENG 2200 and MECH ENG 2350 (BOTH of the courses above or ONE of the courses below.) | Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (3) (Both courses above combined or any one of the following courses will satisfy a required engineering science elective.) | 3-6 |
| OR | OR | | OR | OR | |
| PHY 3363 or CHE 3304 or BIO 3324 | Modern Physics I (3) Organic Chemistry I (4) or Genetics (4) | | PHYSICS 2311 or CHEM 2210 or BIO SCI 2223 | Modern Physics I (3) Organic Chemistry I (4) or General Genetics (3) | |
| MAT 3323 | Linear Algebra | 3 | MATH 3108 | Linear Algebra | 3 |
| | See your advisor for course options. | 3 | | Humanities/Social Science Elective | 3 |
| | See your advisor for course options. | 3 | | Maximum Free Electives | 3 |
| | Group 2 Major Requirements | 21 | | Group 2 Major Requirements | 21 |
| | Group 1 Core Requirements | 36 | | Group 1 Core Requirements | 34 |
| | Total Hours | 57 | | Total Hours* | 55 |

*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>Southwest Baptist University</u> | | <u>Semester</u> | <u>Missouri S&T</u> | | |
|---|--|-----------------|---|--|----|
| PSY 1013 | General Psychology | 3 | PSYCH 1101 | General Psychology | 3 |
| HIS 2213 or HIS 2223 or HIS 1123 or POL 1113 | History of US 1492-1865 or History of US 1865-Present or Intro to History of World Civilization or American Government and Politics | 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 2213 or COM 1103 or ENG 4003 | English Composition II or Fundamentals of Speech or Technical Writing | 3 | ENGLISH 1160 or SPMS 1185 or ENGLISH 3560 | Writing and Research or Principles of Speech or Technical Writing | 3 |
| PHY 3233 | Statics | 3 | CIV ENG 2200 | Engineering Mechanics-Statics | 3 |
| PHY 4233 | Dynamics | 3 | MECH ENG 2350 | Engineering Mechanics-Dynamics | 3 |
| | <i>See your advisor for course options.</i> | 3 | | Humanities/Social Science Elective | 3 |
| | <i>See your advisor for course options.</i> | 3 | | Maximum Free Electives | 3 |
| | Group 2 Major Requirements | 21 | | Group 2 Major Requirements | 21 |
| | Group 1 Core Requirements | 36 | | Group 1 Core Requirements | 34 |
| | Total Hours | 57 | | Total Hours* | 55 |

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

Environmental Engineering Group 2 Major Requirements

| <u>Southwest Baptist University</u> | | <u>Semester</u> | <u>Missouri S&T</u> | | |
|--|---|-----------------|--|--|----|
| ENG 2213 or COM 1103 or ENG 4003 | English Composition II or Fundamentals of Speech or Technical Writing | 3 | ENGLISH 1160 or SPMS 1185 or ENGLISH 3560 | Writing and Research or Public Speaking or Technical Writing | 3 |
| HIS 2213 or HIS 2223 or HIS 1123 | History of US 1492-1865 or History of US 1865-Present or Intro to History of World Civilization | 3 | HISTORY 1300 or HISTORY 1310 or HISTORY 1200 | American History to 1877 or American History since 1877 or Modern Western Civilization | 3 |
| CHE 1125 | General Chemistry II | 5 | CHEM 1320 | General Chemistry II | 3 |
| BIO 1114 | General Biology I | 4 | BIO SCI 1113 | General Biology | 4 |
| PHY 3233 | Statics | 3 | CIV ENG 2200 | Engineering Mechanics-Statics | 3 |
| PHY 4233 | Dynamics | 3 | MECH ENG 2350 | Engineering Mechanics-Dynamics | 3 |
| | <i>See your advisor for course options.</i> | | | Humanities/Social Science Elective | 3 |
| | <i>No free electives applied to the degree.</i> | | | Maximum Free Electives | 0 |
| | Group 2 Major Requirements | 21 | | Group 2 Major Requirements | 22 |
| | Group 1 Core Requirements | 36 | | Group 1 Core Requirements | 34 |
| | Total Hours | 57 | | Total Hours* | 56 |

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

Geological Engineering Group 2 Major Requirements

| <u>Southwest Baptist University</u> | | <u>Semester</u> | <u>Missouri S&T</u> | | |
|---|--|-----------------|---|--|----|
| ENG 2213 or COM 1103 or ENG 4003 | English Composition II or Fundamentals of Speech or Technical Writing | 3 | ENGLISH 1160 or SPMS 1185 or ENGLISH 3560 | Writing and Research or Public Speaking or Technical Writing | 3 |
| HIS 2213 or HIS 2223 or HIS 1123 or POL 1113 | History of US 1492-1865 or History of US 1865-Present or Intro to History of World Civilization or American Government and Politics | 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 3233 | Statics | 3 | CIV ENG 2200 | Engineering Mechanics-Statics | 3 |
| PHY 4233 | Dynamics | 3 | MECH ENG 2350 | Engineering Mechanics-Dynamics | 3 |
| BIO 1114 or CHE 1125 or CHE 3304 | General Biology I or General Chemistry II or Organic Chemistry | 3 | BIO SCI 1113 or CHEM 1320 or CHEM 2210 | General Biology or General Chemistry II or Organic Chemistry I | 3 |
| | <i>See your advisor for course options.</i> | 3 | | Humanities/Social Science Elective | 3 |
| | <i>See your advisor for course options.</i> | 3 | | Humanities/Social Science 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 | 36 | | Group 1 Core Requirements | 34 |
| | Total Hours | 57 | | Total Hours* | 55 |

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

Mechanical Engineering Group 2 Major Requirements

| <u>Southwest Baptist University</u> | | <u>Semester</u> | <u>Missouri S&T</u> | | |
|---|--|-----------------|---|--|----|
| HIS 2213 or HIS 2223 or HIS 1123 or POL 1113 | History of US 1492-1865 or History of US 1865-Present or Intro to History of World Civilization or American Government and Politics | 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 2213 or COM 1103 or ENG 4003 | English Composition II or Fundamentals of Speech or Technical Writing | 3 | ENGLISH 1160 or SPMS 1185 or ENGLISH 3560 | Writing and Research or Principles of Speech or Technical Writing | 3 |
| PHY 3233 | Statics | 3 | CIV ENG 2200 | Engineering Mechanics-Statics | 3 |
| MAT 3323 | Linear Algebra | 3 | MATH 3108 | Linear Algebra I (Will satisfy the Advanced Math/Comp Sci elective requirement.) | 3 |
| | Literature Elective | 3 | | Literature Elective | 3 |
| | <i>See your advisor for course options.</i> | 3 | | Humanities/Social Science Elective | 3 |
| | <i>No free electives applied to the degree.</i> | 0 | | Maximum Free Electives | 0 |
| | Group 2 Major Requirements | 18 | | Group 2 Major Requirements | 18 |
| | Group 1 Core Requirements | 36 | | Group 1 Core Requirements | 34 |
| | Total Hours | 54 | | Total Hours* | 52 |

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

Metallurgical Engineering Group 2 Major Requirements

| <u>Southwest Baptist University</u> | | <u>Semester</u> | <u>Missouri S&T</u> | |
|---|--|-----------------|---|--|
| ENG 2213 or COM 1103 or ENG 4003 | English Composition II or Fundamentals of Speech or Technical Writing | 3 | ENGLISH 1160 or SPMS 1185 or ENGLISH 3560 | Writing and Research or Public Speaking or Technical Writing |
| HIS 2213 or HIS 2223 or HIS 1123 or POL 1113 | History of US 1492-1865 or History of US 1865-Present or Intro to History of World Civilization or American Government and Politics | 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 |
| PHY 3233 | Statics | 3 | CIV ENG 2200 | Engineering Mechanics-Statics |
| CHE 1125 | General Chemistry II | 5 | CHEM 1320 | General Chemistry II |
| CHE 3304 or PHY 3363 | Organic Chemistry I (4) or Modern Physics (3) | 3-4 | CHEM 2210 or PHYSICS 2305 | Organic Chemistry I (4) or Intro to Modern Physics (3) |
| | | | | <i>Not specifically required for the degree but will satisfy Out-of-Department Technical Elective Requirement.</i> |
| | See your advisor for course options. | 3 | | Humanities/Social Science Elective |
| | See your advisor for course options. | 3 | | Humanities/Social Science Elective |
| | See your advisor for course options. | 5 | | Maximum Free Electives |
| | Group 2 Major Requirements | 28 | | Group 2 Major Requirements |
| | Group 1 Core Requirements | 36 | | Group 1 Core Requirements |
| | Total Hours | 64 | | 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

| <u>Southwest Baptist University</u> | | <u>Semester</u> | <u>Missouri S&T</u> | |
|---|--|-----------------|---|--|
| ENG 2213 or ENG 4003 | English Composition II or Technical Writing | 3 | ENGLISH 1160 or ENGLISH 3560 | Writing and Research or Technical Writing |
| HIS 2213 or HIS 2223 or HIS 1123 or POL 1113 | History of US 1492-1865 or History of US 1865-Present or Intro to History of World Civilization or American Government and Politics | 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 |
| PHY 3233 | Statics | 3 | CIV ENG 2200* | Engineering Mechanics-Statics |
| PHY 4233 | Dynamics | 3 | MECH ENG 2350 | Engineering Mechanics-Dynamics |
| | See your advisor for course options. | 3 | | Humanities/Social Science Elective |
| | See your advisor for course options. | 3 | | Humanities/Social Science Elective |
| | No free electives applied to the degree. | 0 | | Maximum Free Electives |
| | Group 2 Major Requirements | 18 | | Group 2 Major Requirements |
| | Group 1 Core Requirements | 36 | | Group 1 Core Requirements |
| | Total Hours | 54 | | Total Hours* |
| | | | | 52 |

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

Nuclear Engineering Group 2 Major Requirements

| <u>Southwest Baptist University</u> | | <u>Semester</u> | <u>Missouri S&T</u> | | |
|---|--|-----------------|---|--|----|
| ENG 2213 or ENG 4003 | English Composition II or Technical Writing | 3 | ENGLISH 1160 or ENGLISH 3560 | Writing and Research or Technical Writing | 3 |
| HIS 2213 or HIS 2223 or HIS 1123 or POL 1113 | History of US 1492-1865 or History of US 1865-Present or Intro to History of World Civilization or American Government and Politics | 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 |
| MAT 3323 | Linear Algebra | 3 | MATH 3108 | Linear Algebra I | 3 |
| PHY 3233 | Statics | 3 | CIV ENG 2200 | Engineering Mechanics-Statics | 3 |
| PHY 3363 | Modern Physics | 3 | PHYSICS 2305 | Intro to Modern Physics | 3 |
| | <i>See your advisor for course options.</i> | 3 | | Humanities/Social Science Elective | 3 |
| | <i>See your advisor for course options.</i> | 3 | | Humanities/Social Science Elective | 3 |
| | <i>See your advisor for course options.</i> | 6 | | Maximum Free Electives | 6 |
| | Group 2 Major Requirements | 27 | | Group 2 Major Requirements | 27 |
| | Group 1 Core Requirements | 36 | | Group 1 Core Requirements | 34 |
| | Total Hours | 63 | | Total Hours* | 61 |

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

Petroleum Engineering Group 2 Major Requirements

| <u>Southwest Baptist University</u> | | <u>Semester</u> | <u>Missouri S&T</u> | | |
|---|--|-----------------|---|--|----|
| ENG 2213 or ENG 4003 | English Composition II or Technical Writing | 3 | ENGLISH 1160 or ENGLISH 3560 | Writing and Research or Technical Writing | 3 |
| HIS 2213 or HIS 2223 or HIS 1123 or POL 1113 | History of US 1492-1865 or History of US 1865-Present or Intro to History of World Civilization or American Government and Politics | 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 3233 | Statics | 3 | CIV ENG 2200 | Engineering Mechanics-Statics | 3 |
| PHY 4233 | Dynamics | 3 | MECH ENG 2350 | Engineering Mechanics-Dynamics | 3 |
| | <i>See your advisor for course options.</i> | 3 | | Humanities/Social Science Elective | 3 |
| | <i>See your advisor for course options.</i> | 3 | | Humanities/Social Science Elective | 3 |
| | <i>No free electives applied to the degree.</i> | 0 | | Maximum Free Electives | 0 |
| | Group 2 Major Requirements | 18 | | Group 2 Major Requirements | 18 |
| | Group 1 Core Requirements | 36 | | Group 1 Core Requirements | 34 |
| | Total Hours | 54 | | Total Hours* | 52 |

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