

# Metropolitan Community Colleges — Missouri S&T

## Physics BS

Transfer Guide Effective as of Fall 2025

Students are not required to complete all courses on this guide before transferring to Missouri S&T.

### Metropolitan Community Colleges

### Missouri S&T

#### Communication Skills

Take all courses.

|                         |  |   |                                 |  |   |
|-------------------------|--|---|---------------------------------|--|---|
| ENGL 101                | Composition and Reading I                          | 3 | ENGLISH 1120                    | Exposition and Argumentation                 | 3 |
| ENGL 102 or<br>ENGL 215 | Composition and Reading II or<br>Technical Writing | 3 | ENGLISH 1160 or<br>ENGLISH 3560 | Writing and Research or<br>Technical Writing | 3 |
| Total Hours             |  | 6 | Total Hours                     |  | 6 |

#### Mathematics and Science

Take all courses.

|             |                                  |    |                  |   |    |
|-------------|----------------------------------|----|------------------|---|----|
| MATH 180    | Analytic Geometry & Calculus I   | 5  | MATH 1214        | Calculus I  | 4  |
| MATH 190    | Analytic Geometry & Calculus II  | 5  | MATH 1215        | Calculus II   | 4  |
| MATH 210    | Analytic Geometry & Calculus III | 4  | MATH 2222        | Calculus III  | 4  |
| CHEM 111    | General College Chemistry I      | 5  | CHEM 1310, 1319  | General Chemistry I and Lab   | 5  |
| CHEM 112    | General College Chemistry II     | 5  | CHEM 1320, 1510* | General Chemistry II (3) and Qualitative Analysis (2)<br><small>*CHEM 1510 is not an S&amp;T degree requirement. Will transfer as general credit.</small> | 3  |
| PHYS 220    | Engineering Physics I            | 5  | PHYSICS 1135     | Engineering Physics I   | 4  |
| PHYS 221    | Engineering Physics II           | 5  | PHYSICS 2135     | Engineering Physics II  | 4  |
| Total Hours |                                  | 34 | Total Hours      |   | 28 |

#### Humanities, Arts, and Social Sciences General Education Requirements

From the options listed in each group below, select 15 hours to include  
6 hours Humanities and Fine Arts from at least two specific disciplines and  
6 hours Behavioral and Social Sciences from at least two specific disciplines.

**\*At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.**

##### Humanities and Fine Arts

Select 6 hours from at least two specific disciplines and at least one literature course.

|   |   |   |  |   |   |
|---|---|---|--|---|---|
| ENGL 220 or<br>ENGL 222 or<br>ENGL 254 or<br>ENGL 268 or<br>ENGL 260  | British Literature to 1750 or<br>American Literature I or<br>World Literature I or<br>Women's Literature or<br>African-American Literature  | 3 | ENGLISH 1211 or<br>ENGLISH 1212 or<br>ENGLISH 1221 or<br>ENGLISH 1222 or<br>ENGLISH 1231 | 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                                | 3 |
| HIST 120* or<br>HIST 121* or<br>ART 108 or<br>MUSI 108 or<br>SPDR 106 | United States History to 1865* or<br>United States History since 1865* or<br>Survey of Art or<br>Music Appreciation or<br>Theatre Appreciation<br><small>*Satisfies the State of Missouri government requirement.</small> | 3 | HISTORY 1300* or<br>HISTORY 1310* or<br>ART 1180 or<br>MUSIC 1150 or<br>THEATRE 1190     | American History to 1877 or<br>American History Since 1877 or<br>Art Appreciation or<br>Music Understanding and Appreciation or<br>Theatre via Video<br><small>*Satisfies the State of Missouri government requirement.</small> | 3 |

##### Behavioral and Social Sciences

Select 6 hours from at least two specific disciplines.

|  |  |   |   |  |   |
|--|--|---|---|--|---|
| HIST 133 or<br>HIST 134* or<br>GEOG 105 or<br>PHIL 100 or<br>PHIL 103 or<br>PHIL 200 or<br>POLS 136* or<br>PSYC 140 or<br>ECON 211 or<br>ECON 210 or<br>Foreign Language | Foundations of Western Civilization or<br>Modern Western Civilization* or<br>World Geography or<br>Intro to Philosophy or<br>Intro to Critical Thinking or<br>Logic or<br>Intro to US National Politics* or<br>General Psychology or<br>Microeconomics or<br>Macroeconomics or<br>Elementary or Intermediate Foreign Language<br><small>*Satisfies the State of Missouri government requirement.</small> | 6 | HISTORY 1100 or<br>HISTORY 1200* or<br>HISTORY 2110 or<br>PHILOS 1105 or<br>PHILOS 1115 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<br>Modern Western Civilization* or<br>World Regional Geography or<br>Self and World: Intro to Philosophy or<br>Logic and Reasoning: An Introduction or<br>American Government* or<br>General Psychology or<br>Principles of Microeconomics or<br>Principles of Macroeconomics or<br>Elementary or Intermediate Foreign Language<br><small>*Satisfies the State of Missouri government requirement.</small> | 6 |
|--|--|---|---|--|---|

##### Humanities, Arts, and Social Sciences

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  | 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  |
| Total Hours   |  | 15 | Total Hours   |  | 15 |

#### Additional Degree Requirements

Select additional courses to total up to the maximum transfer credit hours shown below.

|  |  |   |   |   |   |
|--|--|---|---|---|---|
| MATH 230                               | Differential Equations   | 3 | MATH 3304                               | Elementary Differential Equations                                       | 3 |
| CSIS 271 or<br>CSIS 123 or<br>CSIS 223 | Data Structures and Algorithm Analysis or<br>Programming Fundamentals or<br>Object-Oriented Programming With C++ | 3 | COMP SCI 1500 or<br>COMP SCI 1972, 1982 | Computational Problem Solving or<br>Intro to MATLAB Programming and Lab | 3 |
| Electives                              | Maximum Free Electives   | 6 | Electives                               | Maximum Free Electives  | 6 |

#### Maximum credit hours to be transferred to Missouri S&T degree requirements.

**60**

Missouri S&T residency requirements: The last 60 hours of any Missouri S&T degree must be completed at Missouri S&T.  
Students must receive special permission from Missouri S&T to apply more than the maximum credit hours listed above toward the Missouri S&T degree.  
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Students must  
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