## East Central College — Missouri S&T

### Physics BS with Secondary Education Teacher Certification Transfer Guide

**Effective as of Fall 2020**

<table>
<thead>
<tr>
<th>East Central College</th>
<th>Missouri S&amp;T</th>
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<tbody>
<tr>
<td><strong>Communication Skills (Take all courses)</strong></td>
<td><strong>English Composition I</strong> 3</td>
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<td></td>
<td><strong>Exposition and Argumentation</strong> 3</td>
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<td><strong>English Composition II or Technical Writing</strong> 3</td>
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<td></td>
<td><strong>Writing and Research or Technical Writing</strong> 3</td>
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<td><strong>Public Speaking</strong> 3</td>
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<td><strong>Principles of Speech</strong> 3</td>
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<td><strong>Total Hours</strong> 9</td>
<td><strong>Total Hours</strong> 9</td>
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| **Mathematics and Science (Take all courses)** | **Analytic Geometry & Calculus I** 5 |
|  | **Calculus for Engineers I** 4 |
|  | **Analytic Geometry & Calculus II** 5 |
|  | **Calculus for Engineers II** 4 |
|  | **Analytical Geometry & Calculus III** 5 |
|  | **Calculus with Analytic Geometry III** 4 |
|  | **General Physics I and Lab** 5 |
|  | **Engineering Physics I** 4 |
|  | **General Physics II and Lab** 5 |
|  | **Engineering Physics II** 4 |
|  | **General Chemistry I and Lab** 5 |
|  | **General Chemistry I and Lab** 5 |
|  | **General Chemistry II and Lab** 5 |
|  | **General Chemistry II (3) and Quantitative Analysis (2)** 3 |
| **Total Hours** 35 | **Total Hours** 28 |

| **Social Sciences (Take all courses)** | **US History to 1865 or European Civilization II** 3 |
|  | **American History to 1877 or Modern Western Civilization** 3 |
|  | **US History 1865-1945 or US Government: National and State** 3 |
|  | **American History Since 1877 or General History** 3 |
|  | **General Psychology** 3 |
| **Total Hours** 9 | **Total Hours** 9 |

| **Humanities (Take all courses)** | **Art Appreciation or Theatre Appreciation** 3 |
|  | **Art Appreciation or Theatre Appreciation** 3 |
|  | **Music Appreciation or Theatre Appreciation** 3 |
|  | **Theatre Appreciation** 3 |
|  | **British Literature I: The Beginnings to 1800 or American Literature: 1800 to 1865** 3 |
|  | **British Literature I: The Beginnings to 1800 or American Literature: 1800 to 1865** 3 |
|  | **World Literature I or African American Literature** 3 |
|  | **World Literature I or African American Literature (or other literature)** 3 |
| **Total Hours** 6 | **Total Hours** 6 |

| **Additional Degree Requirements (Select up to 10 credit hours)** | **Differential Equations** 3 |
|  | **Elementary Differential Equations** 3 |
|  | **General Biology I and Lab** 5 |
|  | **General Biology** 3 |
|  | **Intro to Astronomy or Intro to Physical Geology Lec** 3 |
|  | **Introductory Astronomy or Physical and Environmental Geology** 3 |
| **Total Hours** 11 | **Total Hours** 11 |

| **Additional Courses for Teacher Certification Option (Take all courses)** | **Foundations of Education or Multicultural Education** 3 |
|  | **Perspectives in Education** 2 |
|  | **Educational Psychology** 3 |
|  | **Developmental Psychology** 3 |
|  | **Education of the Exceptional Learner** 3 |
|  | **Psychology of the Exceptional Child** 3 |
| **Total Hours** 12 | **Total Hours** 11 |

*Teacher certification notes: An ACT of 22 or a 220 on the MoGEA is required for professional standing in the department. Students must pass the MoCA, maintain a 2.75 cumulative GPA, and a 3.0 content GPA to qualify for student teaching. Students completing this program will earn a BS in Physics.

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

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

*Teacher certification notes: An ACT of 22 or a 220 on the MoGEA is required for professional standing in the department. Students must pass the MoCA, maintain a 2.75 cumulative GPA, and a 3.0 content GPA to qualify for student teaching. Students completing this program will earn a BS in Physics.

This transfer guide is published by Missouri University of Science and Technology and is in effect as of Fall 2020. Further information or updates are available from Missouri S&T Transfer Admissions at transfer.mst.edu, transfer@mst.edu, or 800-522-0938.