2014-2015 Catalog Year - MAPP
Materials Science & Engineering (BSE)

**ASU Major**

[Materials Science and Engineering, BSE - [Ira A. Fulton Schools of Engineering]]

**Special Requirements**

Completion of the Maricopa to ASU Engineering Pathway and all special requirements meets ASU major map requirements and guarantees admission to the Material Science and Engineering BSE degree program. Note: Engineering Core Courses should be completed prior to enrolling in any additional lower division requirement courses. While requirements listed will meet ASU degree requirements, only 64 credit hours are transferable to ASU. Special Requirements: 3.0 transfer GPA as calculated by ASU for admissions. All courses must be completed with a grade of “C” or better.

**Maricopa Community College District Course Requirements**

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Pathway Credits</th>
<th>AGEC-S Program Reqs</th>
<th>ASU ASU Min. Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engineering Core</strong></td>
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<tr>
<td>ENG 101: First-Year Composition</td>
<td>3</td>
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<tr>
<td>ENG 1101 OR ENG 107: First-Year Composition for ESL</td>
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<tr>
<td>ENG 102: First-Year Composition</td>
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<tr>
<td>ENG 1102 OR ENG 108: First-Year Composition for ESL</td>
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<tr>
<td>ECE 102: Engineering Analysis Tools and Techniques AND ECE 103: Engineering Problem Solving And Design</td>
<td>4</td>
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<tr>
<td>EGR 1102</td>
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<tr>
<td>MAT 221: Calculus With Analytic</td>
<td>4</td>
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</tbody>
</table>
### MAT 231: Calculus With Analytic Geometry I
- **Course:** Geometry I
- **Credit Hours:** 4
- **Type:** C

### MAT 241: Calculus With Analytic Geometry II
- **Course:** Geometry II
- **Credit Hours:** 4
- **Type:** C

### MAT 277: Modern Differential Equations
- **Course:** Geometry III
- **Credit Hours:** 3
- **Type:** C

### PHY 121: University Physics I: Mechanics
- **Course:** PHY 121
- **Credit Hours:** 4
- **Type:** C

### PHY 131: University Physics II: Electricity and Magnetism
- **Course:** PHY 131
- **Credit Hours:** 4
- **Type:** C

### CHM 151: General Chemistry I AND CHM 151LL: General Chemistry I Laboratory
- **Course:** CHM 151
- **Credit Hours:** 4
- **Type:** C

### CHM 152: General Chemistry II AND CHM 152LL: General Chemistry II Laboratory
- **Course:** CHM 152
- **Credit Hours:** 4
- **Type:** C

### Humanities and Fine Arts AND Awareness Area
- **Course:** Humanities and Fine Arts AND Awareness Area
- **Credit Hours:** 3
- **Type:** C

All three awareness areas (historical, global and cultural) should be fulfilled between the four HU/SB courses.

### Social and Behavioral Sciences AND Awareness Area
- **Course:** Social and Behavioral Sciences AND Awareness Area
- **Credit Hours:** 3
- **Type:** C

### Additional Lower Division Requirements
- **Course:** PHY 241: University Physics III
- **Credit Hours:** 4
- **Type:** C

Additional Lower Division
Thermodynamics, Optics, and Waves

Requirements:
Complete additional lower division requirements not to exceed 64 total transfer credits. Students should complete PHY 241, EEE 120, EEE 202, EEE 230, CSC 100 before taking other additional requirements listed. All other additional requirements listed can be completed after transfer to ASU.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Grade</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>CSC 100: Introduction To Computer Science</td>
<td>3</td>
<td>C</td>
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<tr>
<td>ECN 211: Macroeconomic Principles</td>
<td>0-3</td>
<td>C</td>
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<tr>
<td>ECN 2201 OR ECN 212: Microeconomic Principles</td>
<td>4</td>
<td>C</td>
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<tr>
<td>EEE 120: Digital Design Fundamentals</td>
<td>4</td>
<td>C</td>
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<tr>
<td>EEE 202: Circuits And Devices</td>
<td>5</td>
<td>C</td>
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<tr>
<td>EEE 230: Computer Org &amp; Assembly Language</td>
<td>4</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Humanities and Fine Arts AND Awareness Area</td>
<td>0-3</td>
<td>C</td>
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</tr>
</tbody>
</table>

Required Credits 67
ASU will accept transfer credit for traditional course work you have successfully completed at regionally accredited institutions of higher education. The applicability of the specific course toward a degree depends on the requirements of the department, division, college or school in which you are enrolled at ASU. Students are responsible for working with their advisor to confirm all transfer transcripts are on file with ASU. For more information: https://transfer.asu.edu/credits