# Materials Science in Engineering
## Pre-Health Planning Guide

Please also refer to the Human Health Professionals [Guide for First- and Second-Year Pre-Med Students](#).

<table>
<thead>
<tr>
<th>Medical School Requirement</th>
<th>Possible Degree Application</th>
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<tbody>
<tr>
<td><strong>Biology (8 credits)</strong></td>
<td>Advisor Approved Elective* (with permission of faculty advisor)</td>
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<tr>
<td><strong>Biochemistry (3/4 credits)</strong></td>
<td>Advisor Approved Elective* (with permission of faculty advisor) &lt;br&gt;Or &lt;br&gt;Outside Technical Elective+</td>
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<tr>
<td><strong>Upper-level Biology (3/4 credits)</strong></td>
<td>Advisor Approved Elective* (with permission of faculty advisor) &lt;br&gt;Or &lt;br&gt;Outside Technical Elective+</td>
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| **General Chemistry (8 credits)** | CHEM 2090 - Engineering Common Curriculum <br>CHEM 2080 or CHEM 2150 - Advisor Approved Elective* (with permission of faculty advisor) or Outside Technical Elective+.

**Organic Chemistry (8 credits)**<br>3 credits can count toward Materials Application Elective. Remaining credits can count toward Advisor Approved Elective* (with permission of faculty advisor) <br>Or Outside Technical Elective+.

**English (writing intensive) (6 credits)**<br>Engineering Common Curriculum

**Math**<br>Calculus:<br>MATH 1910 - Engineering Common Curriculum<br>Statistics:<br>ENGRD 2700 – can count as second ENGRD course and satisfy Advanced Math requirement by petition <br>Or <br>CEE 3040

**General Physics (8 credits)**<br>PHYS 1112 and 2213 - Engineering Common Curriculum<br>• Students complete the 8 credits of Physics requirements by completing PHYS 1112 and PHYS 2213. Information covered in PHYS 2214 is recommended for the MCAT. If a student chooses not to take PHYS 2214, it is strongly encouraged that the student self-studies information covered in the course. PHYS 2214 could be an Advisor Approved Elective* (with permission of faculty advisor).

**Social Science**<br>Liberal Studies Requirement or Advisor Approved Elective* (with permission of faculty advisor)<br>• The “Psychological, Social, and Biological Foundations of Behavior” section of the MCAT covers topics taught in social sciences. Taking courses in Sociology, Psychology, Human Development, and Developmental Sociology can prepare students.

*Materials Science and Engineering requires two advisor approved electives.

+Only one of these classes can count towards an Outside Technical Elective.

These guides are based on the 2019-2020 degree requirements. For the most up to date information, consult with Engineering Advising, major departments, or the current [Engineering Undergraduate Handbook](#).

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