

## Materials Science in Engineering Pre-Health Planning Guide

Please refer to Cornell Career Services [Pre-Health Academic Preparation](#) website for additional course options.

Medical School Requirement	Possible Degree Application
<b>Biology (8 credits)</b>	Advisor Approved Elective* (with permission of faculty advisor)
<b>Biochemistry (3/4 credits)</b>	Advisor Approved Elective* (with permission of faculty advisor) Or Outside Technical Elective+
<b>Upper-level Biology (3/4 credits)</b>	Advisor Approved Elective* (with permission of faculty advisor) Or Outside Technical Elective+ <ul style="list-style-type: none"> <li>Although not required, students find that taking upper level biology courses useful in understanding advanced concepts and providing greater depth of preparation for MCAT exams</li> </ul>
<b>General Chemistry (8 credits)</b>	CHEM 2090 - Engineering Common Curriculum CHEM 2080 or CHEM 2150 - Advisor Approved Elective* (with permission of faculty advisor) or Outside Technical Elective+.
<b>Organic Chemistry (8 credits)</b>	Advisor Approved Elective* (with permission of faculty advisor) or Outside Technical Elective+.
<b>English (writing intensive) (6 credits)</b>	Engineering Common Curriculum (FWS)
<b>Math</b>	Calculus: MATH 1910 - Engineering Common Curriculum  Statistics: ENGRD 2700 – can count as second ENGRD course and satisfy Advanced Math requirement or CEE 3040
<b>General Physics (8 credits)</b>	PHYS 1110, 1112 and 2213 - Engineering Common Curriculum <ul style="list-style-type: none"> <li>Students complete the 8 credits of Physics requirements by completing PHYS 1112, and PHYS 2213 lectures and PHYS 1110 lab.</li> <li>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.</li> <li>Some medical schools may require two semesters of Physics lab. If another semester of lab is necessary a student must complete PHYS 2214.</li> </ul>
<b>Social Science</b>	Liberal Studies Requirement or Advisor Approved Elective* (with permission of faculty advisor) <ul style="list-style-type: none"> <li>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.</li> </ul>

\*Materials Science and Engineering requires 6 credits of advisor approved electives.

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

These guides are based on the 2021-2022 degree requirements.  
For the most up to date information, consult with Engineering Advising, major departments, or the current [Engineering Undergraduate Handbook](#)