Premedicine...

- ...is NOT a major
- Students select major from an engineering school department
- Students take “premedicene” courses to qualify for admission
Disclaimer:

Medical school admission requirements vary from school to school. Check the specific requirements of the institutions where you plan to apply.

The MSAR® online is a great resource for this: https://services.aamc.org/30/msar/home

Now, for the general requirements...
General Admissions Requirements

In general, most medical schools will expect applicants who have taken the Medical College Admission Test (MCAT), and to have completed the following types of courses:

- One year of English
- One year of physics with lab
- One year of biology with lab
- Two years of chemistry with lab
  - Including organic chemistry

https://www.aamc.org/students/applying/requirements/
Common Additional Courses

- Biochemistry
- Statistics / Computational Skills / Mathematics
- Psychology
- Sociology
Optional Courses

- Anthropology
- Ethics
- MCAT Prep
- Foreign Language (mastery)
- Independent Study
- Writing – analytical skills and expository writing
Suggested Course Sequences
**Sample Option #1**

### Freshman Year
- **Fall**
  - General Chemistry I, II: Chem 111A
  - Gen Chem Lab I, II: Chem 151
  - General Physics I, II: Physics 117A/197
  - Calculus II, III: Math 132
  - Biology I: MedPrep I (or SP)
- **Spring**
  - General Chemistry II: Chem 112A
  - Gen Chem Lab II: Chem 152
  - General Physics II: Physics 118A/198
  - Calculus III: Math 233
  - Biology I: Bio 2960

**Summer between FR/SO Year**
- Organic Chemistry I, II: Chem 261 & Chem 262

### Sophomore Year
- **Fall**
  - BioChemistry I: Bio 451/406 (FL or SP)
  - Biology II: Bio 2970
  - Physiological Control Systems
  - Intro to Psychology
  - Intro to Sociology*
- **Spring**
  - Bio 3058
  - Psych 100B
  - SOC 2110
  - *can take SOC 2510 in Spring

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*Take MCAT Summer after Sophomore Year; apply to Medical School by June 1st after Junior Year*
## Sample Option #2

<table>
<thead>
<tr>
<th>Freshman Year</th>
<th>Fall</th>
<th>Spring</th>
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<tbody>
<tr>
<td>General Chemistry I, II</td>
<td>Chem 111A</td>
<td>Chem 112A</td>
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<tr>
<td>Gen Chem Lab I, II</td>
<td>Chem 151</td>
<td>Chem 152</td>
</tr>
<tr>
<td>General Physics I, II</td>
<td>Physics 117A/197</td>
<td>Physics 118A/198</td>
</tr>
<tr>
<td>Calculus II, III</td>
<td>Math 132</td>
<td>Math 233</td>
</tr>
<tr>
<td>Biology I</td>
<td>MedPrep I (or SP)</td>
<td>Bio 2960</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Sophomore Year</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic Chemistry I, II</td>
<td>Chem 261</td>
<td>Chem 262</td>
</tr>
<tr>
<td>Biology II</td>
<td>Bio 2970</td>
<td>Biol 3058</td>
</tr>
<tr>
<td>Physiological Control Systems</td>
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<table>
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<tr>
<th>Junior Year</th>
<th>Fall</th>
<th>Spring</th>
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<tbody>
<tr>
<td>BioChemistry I</td>
<td>Bio 451/406</td>
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<tr>
<td>Intro to Psychology</td>
<td>Psych 100B</td>
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<tr>
<td>Intro to Sociology*</td>
<td>SOC 2110</td>
<td></td>
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<tr>
<td>*can take SOC 2510 in Spring</td>
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</tbody>
</table>

**Take MCAT by May of Junior Year; apply to Medical School by June 1st after Junior Year**
### Sample Option #3

#### Gap Year

<table>
<thead>
<tr>
<th>Freshman Year</th>
<th>Fall</th>
<th>Spring</th>
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</thead>
<tbody>
<tr>
<td>General Chemistry I, II</td>
<td>Chem 111A</td>
<td>Chem 112A</td>
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<td>Chem 151</td>
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<td>Physics 117A/197</td>
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<td>Calculus II, III</td>
<td>Math 132</td>
<td>Math 233</td>
</tr>
<tr>
<td>Biology I</td>
<td>MedPrep I (or SP)</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sophomore Year</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic Chemistry I, II</td>
<td>Chem 261</td>
<td>Chem 262</td>
</tr>
<tr>
<td>Biology II</td>
<td>Bio 2970</td>
<td>Bio 3058</td>
</tr>
<tr>
<td>Physiological Control Systems</td>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Junior Year</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>BioChemistry I (Ucollege only in SP)</td>
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<td>Bio 406</td>
</tr>
<tr>
<td>Intro to Psychology</td>
<td>Psych 100B</td>
<td></td>
</tr>
<tr>
<td>Intro to Sociology*</td>
<td>SOC 2110</td>
<td></td>
</tr>
</tbody>
</table>

*can take SOC 2510 in Spring or another sociology course can be taken over the summer

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Take MCAT Summer after Junior Year; apply to Medical School by June 1st after Senior Year

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Washington University in St. Louis
School of Engineering & Applied Science
MCAT changed drastically as of Spring 2015.

Major changes are:

- Biological sciences sections reflect recent changes in medical education.

- A new section, "Psychological, Social and Biological Foundations of Behavior", recognizes the importance of socio-cultural and behavioral determinants of health and health outcomes.

- A new "Critical Analysis and Reasoning Skills" section is designed to test your ability to read a passage, interpret the information, and answer questions about the passage; the questions are based on critical reasoning skills that require a higher level of analysis.
Test Sections:

- Biological and Biochemical Foundations of Living Systems Section
- Chemical and Physical Foundations of Biological Systems Section
- Psychological, Social, and Biological Foundations of Behavior Section
- Critical Analysis and Reasoning Skills Section

https://students-residents.aamc.org/applying-medical-school/taking-mcat-exam/
Milestones

First-Year to Senior
First-Year

- Register with **Dean Laue, Health Professions Advisor**, 303 Lopata Hall, phone 935-6100
- Strengthen time-management and study skills to foster success in your coursework; utilize academic support resources such as PST, PLTL, RPM, and Engineering Tutors
- Grow engagement in the WashU experience, becoming involved in student organizations, athletics, and volunteer experiences
Sophomore Year

- Volunteer in a clinical setting
- Conduct research (if desired)
- Continue extracurricular activities and further develop your passions; check out the The Gephardt Institute for Civic and Community Engagement for ways to get involved. ([http://gephardtinstitute.wustl.edu/](http://gephardtinstitute.wustl.edu/))
- Complete PreMed required classes (if no gap year)
- Prepare for and take MCAT summer after sophomore year; take MCAT in August prior to beginning of junior year (if no gap year)
Junior Year (senior year if taking gap year)

- Continue extracurricular activities, clinical volunteering/shadowing and (if desired) research
- Begin identifying faculty and staff to write you a medical school recommendation (ask by March)
- If you are not satisfied with your MCAT you can take it again, but do so by May of the year you are applying.
- Complete PreHealth Institutional Review (PIR) by April, Mock interview with Dean Laue by May 30.
- Complete AMCAS application & submit on June 1
  [https://www.aamc.org/students/applying/amcas/](https://www.aamc.org/students/applying/amcas/)
Senior year (or later if taking gap year)

- Complete Secondary Applications within a week of receipt from medical schools in which you have applied
- Interview at medical schools (can begin as early as September)
- Strategize with Dean Laue throughout the application process (for example, should you submit a supplemental letter to medical schools???)
The goal is to **SUBMIT** to AMCAS within the first week of the application opening for submission.

**AMCAS Verification**

- **2015 Application Year**
- **2014 Application Year**

- # of business days to complete verification
- 1-Jun to 1-Dec
Engineering Premedicine Advising Series = EPAS

Information sessions for all Engineering Premedicine Students

- Student and Faculty Panels
- Information like:
  - MCAT
  - Recommenders
  - Personal Statements
  - Interview Preparation
Planning Timeline

August 26
- Premedicine Information Session

September
- Individual meetings with those applying in the current cycle

October 17
- "Break into Medical School" – **strongly encouraged** for all engineering students applying in the **upcoming** admissions cycle

November
- EPAS Presentation: “MCAT & Choosing your Recommenders"

January
- Mandatory meeting group meeting for all premed **engineering sophomores**

February
- EPAS: “Deadlines & Key Dates for June 2018 Applicants"
- Schedule PIR meeting/Mock Interview with Dean Laue

March
- University-wide Workshop: “Writing your Personal Statement"
- **Solidify faculty and other individuals who will be submitting a Letter of Recommendation on your behalf**
- Schedule PIR meeting/Mock Interview Dean Laue (if not already done so)

April
- PIR Meeting/Mock Interview with those applying to medical school in the current cycle

May
- PIR Interviews cont.
- "Junior Jumpstart" - Highly recommended for all engineering students applying this admissions cycle
- AMCAS Application Opens

June
- Submit AMCAS Application on June 1

July-August
- Secondary applications
Resources

- Engineering Health Professions Advisor: Ronald Laue, PhD
  Lopata 303, 935-6100
  ron.laue@wustl.edu
- Professor Dennis Barbour, MD/PhD
- Washington University Prehealth: http://prehealth.wustl.edu
  http://pages.wustl.edu/medprep/virtual-advisor
- A very important URL: http://www.aamc.org
  MCAT dates, registration, practice tests
  AMCAS web-based application
OTHER FACTORS OF INFLUENCE

Volunteering in a hospital/clinical setting

Leadership in a student organization

Community Engagement

Engineering Premedicine (EP)

Humanity Leadership Creativity

OTHER FACTORS OF INFLUENCE
<table>
<thead>
<tr>
<th>Medical Schools Enrolling SEAS Grads</th>
<th>Ohio State Univ.</th>
<th>Univ. of Kentucky</th>
</tr>
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<tbody>
<tr>
<td>Washington University</td>
<td>Rush Medical College</td>
<td>Univ. of Louisville</td>
</tr>
<tr>
<td>Albany Medical College</td>
<td>Southern Illinois University</td>
<td>Univ. of Maryland</td>
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<td>Albert Einstein University</td>
<td>Saint Louis University</td>
<td>Univ. of Massachusetts</td>
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<td>Armed Forces Medical School</td>
<td>Stanford University</td>
<td>Univ. of Michigan</td>
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<td>Baylor University</td>
<td>Stony Brook University</td>
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<td>Case Western Reserve</td>
<td>Temple University</td>
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<td>Univ. of South Florida</td>
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<td>Univ. of Arkansas</td>
<td>Univ. of Tennessee</td>
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<td>Indiana University</td>
<td>Univ. of Calif. – San Diego</td>
<td>Univ. of Texas-Galveston</td>
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<td>Univ. of Calif. – Irvine</td>
<td>Univ. of Texas-San Antonio</td>
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<td>Louisiana State Univ.</td>
<td>Univ. of Calif. – Los Angeles</td>
<td>Univ. of Texas - Southwestern</td>
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<td>Loyola Univ. Chicago Stritch</td>
<td>Univ. of Chicago – Pritzker</td>
<td>Univ. of Utah</td>
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<td>Mayo Clinic</td>
<td>Univ. of Cincinnati</td>
<td>Univ. of Virginia</td>
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<td>Medical College of Georgia</td>
<td>Univ. of Connecticut</td>
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Any questions?