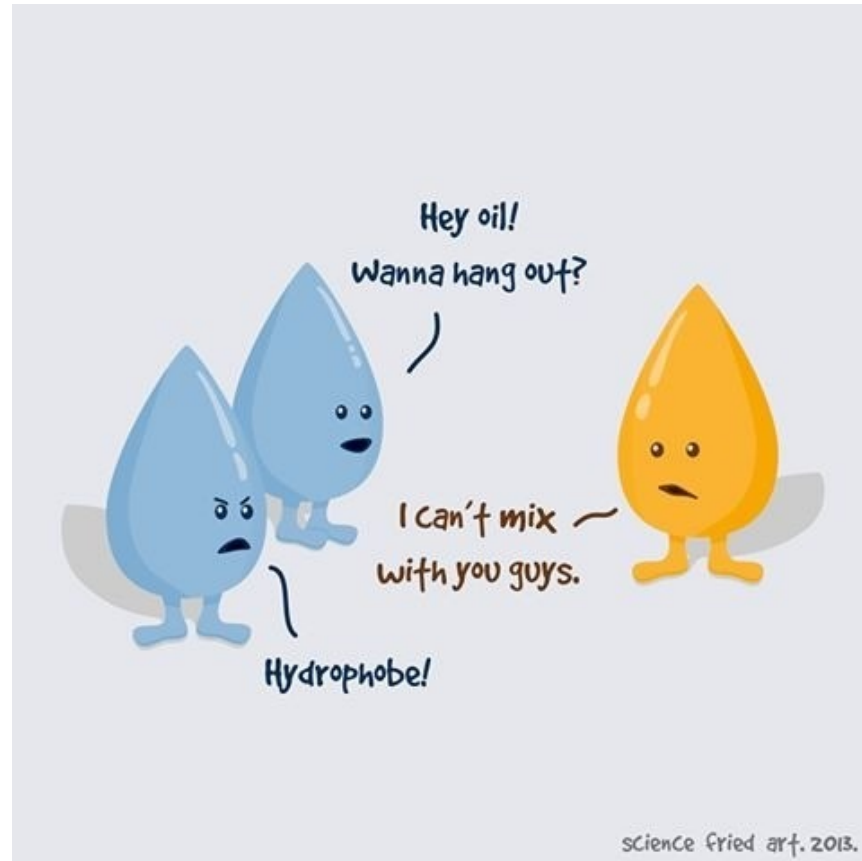


First Year Prehealth Orientation



To view slides: <http://pages.pomona.edu/~rs104747/prehealth.pdf>

Outline

- » Prehealth Resources
- » Exploring the Health Professions
- » Academic Preparation
- » Holistic Admissions
- » Next Steps



Pre-Health

Pomona College Pre-Health Advising serves all current students and alumni interested in pursuing a career in healthcare. We work closely with you to help you tailor academics to best meet the qualifications of health profession schools, navigate research and volunteering opportunities on and off campus, and develop professional skills required to excel in any health profession.

Each year, about 60 Pomona undergraduate students and alumni apply to medical schools.

Pomona graduates are represented at top schools such as Harvard, Yale, Columbia, Mayo Clinic, John Hopkins, UCSF, UCLA, Cornell, Washington University, USC, and many fine state universities. In 2019, the College's MD school acceptance rate is 85%, substantially higher than the national acceptance rate.

Through the course of our student's liberal arts education, Pomona College offers an

Make an Appointment

[ATTEND AN EVENT OR WORKSHOP](#) >

[SCHEDULE AN APPOINTMENT WITH KAT WANG](#) >

[SCHEDULE AN APPOINTMENT WITH RICHARD LEWIS](#) >

[SUBSCRIBE TO PRE-HEALTH DIGEST UNDER CAREER INTEREST IN HANDSHAKE](#) >

[ATTEND THE CLAREMONT COLLEGE HEALTH PROFESSIONS FAIR](#) >

PREHEALTH

[PRE-HEALTH A-Z](#)

[WHY I CHOSE PRE-HEALTH](#)

[EXPLORE](#)

[PREPARE](#)

[APPLY](#)

[HANDOUTS & RESOURCES](#)

[HEALTH PROFESSIONS FAIR](#)

[FAQS](#)

[OUR TEAM](#)

CONTACT US

[📍 Alexander Hall 154](#)

prehealth.advising@pomona.edu

(909) 607-8947

Prehealth Website

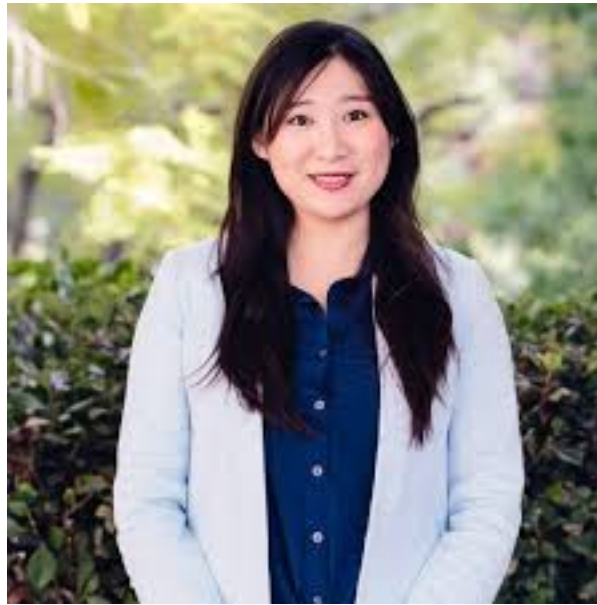
- » Advice about preparing for a career in health professions
- » Calendar of important events
- » Timeline and instructions for applying to health professions programs
- » How to make appointments with pre-health advisors and liaisons

Prehealth Office

- » Located in the Career Development Office (CDO) within Alexander Hall



CDO Prehealth Advisor



Kat Wang

Prehealth Administrative Assistant



Angel Bradley

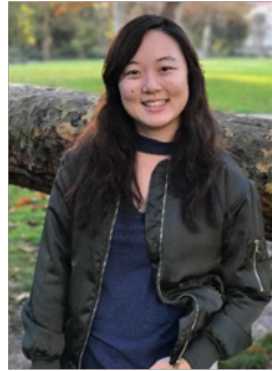
Faculty Prehealth Advisor

Me

Prehealth Liaisons



Anne Berhe '20



Annika Kim '20



Anne Price '20



Ja'Nea James '21



Jaime Gonzalez '21

Pomona Prehealth Liaisons

Student run group aimed to help students interested in **all** pre-health careers.

We host:

- medical school tours
- de-stress events
- pre-registration schedule planning
- community building events
- health-care seminars



Pomona Prehealth Liaisons

Meet & Greet: Friday, September 6th @ 4-5PM in Walker Lounge



Join: [Pomona College Pre-Health Community](#) Group



Mentorship Program: <https://forms.gle/qcR4wVSogLGoP7hLA>



Email: pomonahealth@gmail.com

Quantitative Skills Center Staff

Quantitative Skills Center



[Travis Brown](#)

Director, Quantitative Skills Center

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[Nita Kansara](#)

Administrative Assistant

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[Dylan Worcester](#)

Assistant Director, Quantitative Skills Center

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(909) 607-0187

QUANTITATIVE SKILLS CENTER

OUR STAFF

Schedule an Appointment at the QSC

1. Open the [Quantitative Skills Center page at my.pomona.edu](#) under academics.
2. Click "See Available Appointments".
3. Click "Book It". You will receive an email confirming your appointment.

Becoming A Successful Pre-Health Student

- » 1. Be familiar with information on the Pomona Prehealth Website
- » 2. Read the Prehealth Digest every Thursday
- » 3. Go to the Prehealth Meetings

Health Sciences Committee

- » Primarily involved in preparing Health Science Committee letter of recommendation for students entering medical and dental school.
- » Process for requesting a letter of recommendation from health science committee is 9 months before applying to medical/dental school, which is 12 months before entering medical/dental school
- » In September, there will be a mandatory meeting for students applying the following summer



Exploring the Health Professions

- » There are many ways to contribute to improving health care
 - Become familiar with them!
 - Medicine/Dentistry
 - Allopathic (M.D.)
 - Osteopathic (D.O.)
 - Podiatric (D.P.M.)
 - Veterinary (D.V.M.)
 - Dentistry (D.D.)



Health Professions

» Allied Health Professions

- Nursing
- Pharmacy
- Optometry
- Physical Therapy
- Occupational Therapy
- Speech Therapy
- Nutrition
- Genetic Counseling
- Physicians Assistant
- And Many Others



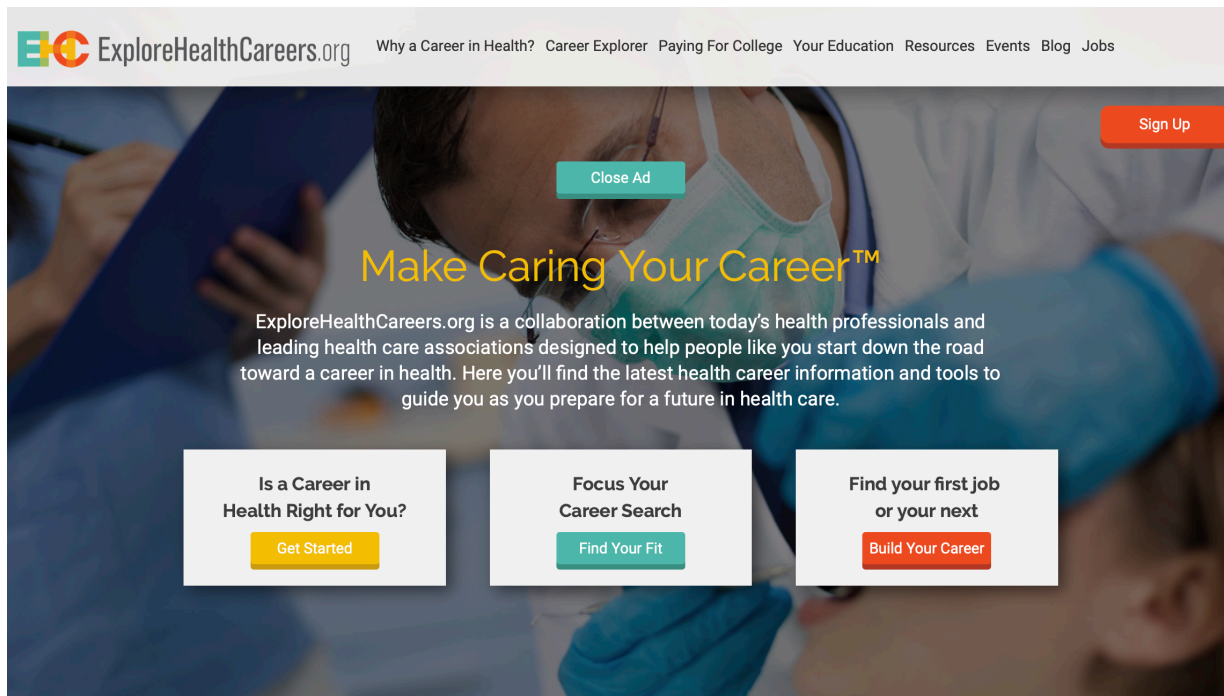
Public Health

- » Epidemiology
- » Biostatistics
- » Health Services Administration
- » Environmental Medicine
- » Behavioral Sciences/Health Education
 - For more information:
 - <http://www.asph.org/>
 - <http://www.publichealth.org/>



A good place to start...

>> www.explorehealthcareers.org



Explore

There is a vast array of careers in healthcare. Learning about the different professions will allow you to make an informed decision about your path. Whether you are set on a specific field or have yet to decide, it is important to take the time to explore these options and discover what role is best for you.

Both [Explore Health Careers](#) and [CareerBeam](#) provide a great starting place for your search.

Once you have become familiar with these sites, the tools below will be helpful in gaining information specific to a particular field and/or profession.

Learn more about these career segments:

- [Careers in Medicine](#)
- [Careers in Allied Health](#)
- [Careers Beyond Medicine](#)

More Resources

- [Pre-Health Student Guide](#)
- [Undocumented and DACAmented Student Resources](#)
- [International Student Resources](#)
- [Supporting Diversity in Health Professions](#)

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Academic preparation for health professions

- » What should I major in?
- » What courses do I need to take?
- » When should I take these courses?





What should I major in?

- » Generally, health science fields are interested in broadly-educated students, which is what Pomona College provides with its liberal arts education.
- » Your chances of acceptance are not increased if you major in science, or if you choose not to major in science.
- » **Major in the academic area in which you are most interested!**

What courses should I take?



Basic Prehealth Requirements

Subject	Duration	Pomona Courses
Biology	1 Year	Bio 40 (Genetics) Bio 41c (Cell Biology)
Chemistry	2 Years	General Chem 1a,b or 51 Organic Chem (110a) Biochemistry (115)
		Some schools will require 2 semesters of Organic
Physics	1 Year	Physics 41 Physics 42
		Requirement can be met by Physics 70, 71 & 72 for most schools

Competency Based

Stanford

U Penn

Duke

U Michigan

UCLA

NYU

Vanderbilt

UChicago



Courses	Required/Recommended	Lab	Credit Hours ?	AP Accepted?	Online Accepted?	Community College Accepted?
Behavioral Sciences	Recommended			✗	i	✓
Biochemistry	Recommended			✗	i	✓
Biology	Recommended	✓		✗	i	✓
Biology/Zoology						
Calculus	Recommended			✗	i	✓
College English	Recommended			✗	i	✓
College Mathematics	Recommended			✗	i	✓
Computer Science						
English	Recommended			✗	✓	✓
Genetics	Recommended			✗	i	✓
Humanities	Recommended					
Inorganic Chemistry	Recommended	✓		✗	i	✓
Organic Chemistry	Recommended	✓		✗	i	✓
Physics	Recommended	✓		✗	i	✓
Psychology	Recommended			✗	i	✓
Social Sciences	Recommended			✗	i	✓

Course Based Requirements: Basic Prehealth Requirements

UCSF (1 semester of physics)

Yale

University of Washington

plus four semesters of humanities and social
sciences



Required Courses; must include a minimum of the following

(this list is for your information and is not exhaustive)

1 Social sciences, humanities or "human condition" - 4 semesters or 6 quarters

General types of courses that fulfill these requirements are: anthropology, classics, cultural studies/cross cultural studies, English literature, ethics, foreign language literature, history, philosophy, psychology, religion/theology, sociology, study abroad

2 Chemistry and biology - 6 semesters or 9 quarters

The subject matter in these courses must include college level chemistry and biology, biochemistry, molecular genetics, cell biology/cell physiology, although applicants are not required to take courses with these specific titles.

Although a biochemistry course is not absolutely required, it is very strongly recommended. The Foundations curriculum is taught with the assumption that students arrive with a solid grounding in the fundamentals of molecular genetics and biochemistry, including structure and activity of genes and proteins, and intermediary metabolism. A comprehensive undergraduate biochemistry course is the most expedient way to gain this knowledge.

3 Physics

2 semesters or 3 quarters of physics

OR

1 semester or 2 quarters of physics **plus** 1 semester or 2 quarters of calculus or linear algebra.

Course Based Requirements: Basic Prehealth Requirements Plus Additional Courses

Harvard (1 year Calculus/Statistics + one year writing)

Johns Hopkins (1 year Calculus/Statistics)

Washington U (1 year Calculus/Statistics)

Columbia University

Requires 2 semesters of Organic (but doesn't require biochemistry)

1 year of English (Courses designated 'writing-intensive'... will be accepted)



Required course work

A minimum of one year or equivalent advanced placement in

- Biology
- General or inorganic chemistry
- Organic chemistry*
- Physics
- Calculus through integral and differential equations**

Possible substitutions

* One semester of biochemistry can be substituted for one semester of organic chemistry.

** Statistics can be substituted for one semester of calculus. In selected instances, one or more of these prerequisites may be waived by the Committee on Admissions.

A course in biochemistry, though not required, is encouraged.

Additional Course Considerations

» Expository Writing: English/Writing Intensive: 5. -1 Year

About half of the medical schools require “English”, and some require two semesters of “English”. Most of these schools are interested in students learning how to write well. Many medical schools also appreciate the close reading that is emphasized in English courses.

ID1 and our writing intensive requirement should satisfy the “English” requirement of medical and dental schools.

Additional Course Considerations

» Quantitative: Mathematics & Statistics: 0 -1 Year

Quantitative skills are important for biomedical fields. However, less than half of the medical schools require college level math. Less than 10% of medical schools require calculus, but Physics 41 at Pomona requires Math 30 (Calc I or the equivalent). Statistics is increasingly important in medicine, yet less than 10% of medical schools require statistics.

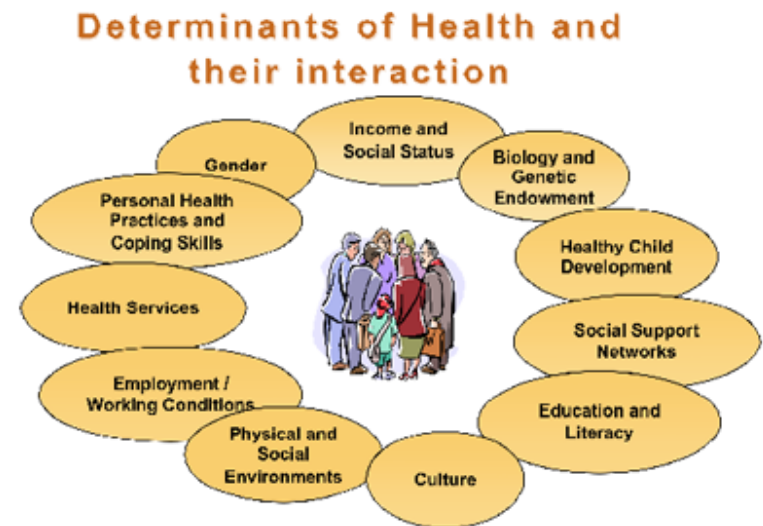
Consider: 1 semester of Calculus or above & Statistics

Additional Course Considerations

- » Second semester Organic Chemistry (110b)
 - » 15% of top medical schools require 2 semesters of Ochem. Most dental schools require 2 semesters.
- » Some schools require an upper division Biology course
- » Foreign Languages and Literatures
 - » Increasingly, schools are recommending fluency in another language such as Spanish or an Asian language
- » There is no general policy on AP & IB—schools vary on whether or not they accept these scores in place of course requirements
- » Behavioral and Social Sciences
 - » Consider coursework in Psychology and Sociology if preparing for medicine

National Center for Health Statistics (2002)

- » It has been well-established that approximately half of all causes of morbidity and mortality in US are linked to behavioral and social causes



Additional Course Considerations

- » Allied health professions have additional course not offered at Pomona College
 - » e.g. human anatomy and physiology, nutrition, microbiology, life-span developmental psychology

Prerequisites Vary

- » It is always important to investigate the specific course requirements at schools of interest.
- » Know the course requirements of the schools in your state of residency
- » Prerequisites are generally considered matriculation requirements—not admission requirements

When should I take them?



Depends on Many Factors

- » Previous science preparation
- » Overall workload (including co-curricular involvement, number of labs)
- » Exploration of curriculum
- » Selection of major
- » among others

What should you enroll in this semester?

- » If you plan to complete your prehealth prerequisites by the time you graduate, then enroll in Chemistry this fall
- » Follow Chemistry recommendation for 51 or 1a (& appropriate section)

To Discuss with Advisor:

- » Whether to also enroll in Biology 40: Genetics.
 - will depend on many factors, including but not limited to, preparation in the sciences, exploration of the curriculum, anticipated major, etc.

You Can Take One Lab Course Per Semester!

<i>Year</i>	<i>Fall</i>	<i>Spring</i>
<i>1 (Fr)</i>	<i>Gen Chem 1a/51</i>	<i>Chem 1b</i>
<i>2 (So)</i>	<i>Ochem (Chem 110a)</i>	<i>Biochem (Chem 115)</i>
<i>3 (Jr)</i>	<i>Bio 40 (Genetics)</i>	<i>Bio 41c (Cell Biology)</i>
<i>4 (Sr)</i>	<i>Physics 41</i>	<i>Physics 42</i>

Two Lab Courses this Fall

<i>Year</i>	<i>Fall</i>	<i>Spring</i>	<i>Summer</i>
1 (Fr)	Chem 1a Bio 40	Chem 1b Bio 41C	Volunteer/ Internship/ Research/Work
2 (So)	Ochem (Chem 110a) Physics 41	Biochem (Chem 115) Physics 42	Volunteer/ Internship/ Research/Work

Also consider in planning: Quantitative courses, 2nd semester Ochem, Expository writing intensive courses, Psychology & Sociology, Upper div biology, Study abroad

If you do not know what you want to major in (or plan on majoring in a social science or humanities)...

- ID1
- General Chemistry
- a humanities course
- a social science course

If interested in Mathematics...

- Then, take math and an elective
 - ID1
 - General Chemistry
 - Math (Calculus, Linear Algebra, etc)
 - elective

If interested in Computer Science...

- Then, take math and an elective
 - ID1
 - General Chemistry
 - Computer Science
 - elective

If interested in Physics and Astronomy...

- ID1
- General Chemistry
- Physics 70: Spacetime, Quanta and Entropy with lab
 - (to be followed by Physics 71, 72 in the spring, which should satisfy their physics premed requirement)
 - Elective

If interested in Neuroscience...

- » You should take General Chemistry
AND Bio 40 (Genetics)
 - ID1
 - General Chemistry
 - Bio 40
 - 1 elective

Notice!

- » We do not recommend that entering students take 3 STEM courses (and we discourage it):
 - » Chemistry
 - » Biology
 - » Math
 - » ID1

Avoid



Enrolling in Bio 40
without also enrolling in Chemistry

Fall 2020

- » Sophomore Meeting
 - » Academic scheduling
 - » Study Abroad
 - » Timing of application and entrance exams
 - » Preparing to apply to the health professions

Relatively Low Grades in First Year Science Courses?

- » Does not rule out a health profession
- » Seek help early
 - Meet with professors, academic advisor, science mentors, tutors,
 - Visit Quantitative Skills Center,
 - Sage Fellows, Peer Academic Coaches
 - Seek help from Student Affairs, etc.
- » Schools look at “trajectory”

Save Your Work From All Courses!

- » Tests
- » Papers
- » Lab Notebooks
- » Syllabi
- » etc



Importance of Application Components

Table 3. Mean importance ratings for using various data in selecting applicants **at any stage** in the admissions process.

Data Used	Mean
Interview recommendation	4.5
GPAs: cumulative science/math	4.0
Letters of evaluation or recommendation	4.0
GPAs: cumulative undergraduate total	3.9
Community service/volunteer – medical/clinical	3.8
MCAT Total scores	3.8
MCAT Biological Sciences scores	3.7
MCAT Verbal Reasoning scores	3.7
Completion of pre-medical course requirements	3.7
Personal statements	3.7
Medical/clinical work experience	3.6
Community service/volunteer – not medical/clinical	3.6
MCAT Physical Sciences scores	3.5
Leadership experience	3.5
Experience with underserved populations	3.1
U.S. Citizenship/Permanent Residency	3.0
State residency	3.0
Medical/clinical research experience	2.9
GPAs: cumulative non-science/math	2.9
MCAT Writing Sample scores	2.4
Socio-economic status (SES)	2.3
Completion of challenging non-science courses	2.2
Race/ethnicity	2.2
Rural background	2.2
Selectivity of undergraduate institutions	2.0
Urban background	1.6
Gender	1.4

Rating Scale

5 = Extremely Important
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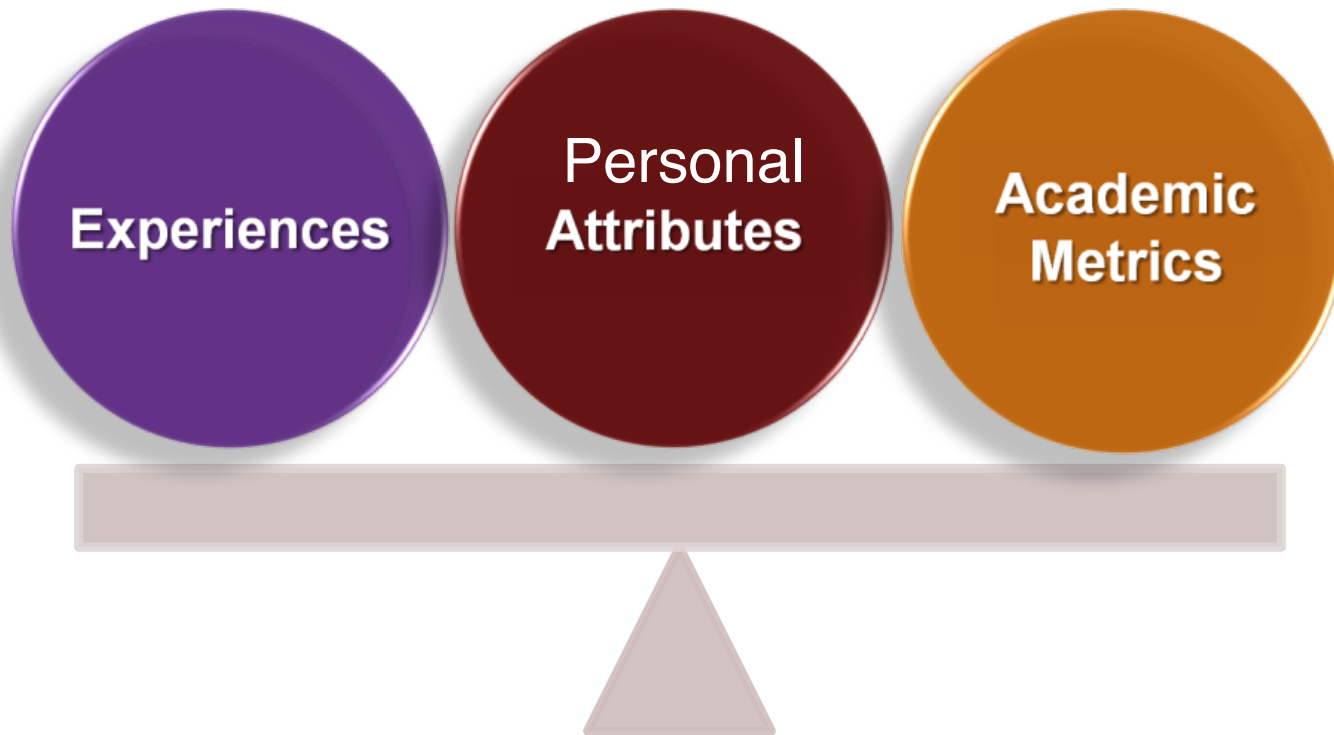
Color Scheme

Red = Academic data
 Blue = Experiential data
 Green = Demographic data
 Black = Combination of multiple types of data

Note. n = 120.

Numbers were calculated in a two-stage process. First, we identified the maximum importance rating for each type of data within a school. Second, we computed the mean of these ratings across schools.

The Prehealth Path



AAMC Admissions Initiative



Gabe Garcia, M.D.

Former Dean of Admissions, Stanford

- » Grades and MCATs will make medical schools notice your application
- » Extracurriculars and personal characteristics are what will get you into medical school”

Experiences

- » Work, volunteer, internship, student organizations and/or research experience can be a very important component of your preparation for healthcare career
 - However, first semester is not the time to worry about this!

Core Entry-level Personal Competencies*

*AAMC Committee on Admissions

- Integrity and Ethics
- Reliability and Dependability
- Service Orientation
- Social and Interpersonal Skills
- Teamwork
- Capacity for Improvement
- Resilience and Adaptability
- Cultural Competence
- Oral Communication

Personal Characteristics Are Assessed Through:

- » Personal Statements
- » Letters of evaluation
- » Interviews
- » Experiences & reflections on these experiences

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Becoming A Successful Pre-Health Student

- » 1. Be familiar with information on the Pomona Prehealth Website
- » 2. Read the Prehealth Digest every Thursday
- » 3. Go to the Prehealth Meetings

Becoming A Successful Prehealth Student

- » First Semester
 - » Focus on transitioning to college
 - » Make academics your top priority
 - » Learn how to learn

International, DACA, and Undocumented Students Face Additional Challenges in Applying to Health Profession Schools

Pre-Health

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