

Health Careers Cheat Sheet for Advisors

This cheat sheet is intended to provide advisors with a quick reference to different careers and the courses which are typically required for students intending to enter those professional programs. Each program, however, can set its own requirements and it is impossible to list all possible permutations here. With that in mind, please remember:

- This is a general list and specifics may vary by school—for example, the IU Med School requirements may differ from those at Duke. Encourage students to start looking early on at schools at which they think they will apply.
- Required prerequisite courses must have a grade of C or better. Anything lower, including a C-, should be repeated.
- Most programs prefer that required courses come from the home institution and some will not take science classes from community colleges. Summer classes for required classes should be limited.*(more info at end of document)
- Course choices may differ from this list depending on major and requirements for that major (such as BME students taking BIOL 230).
- Professional schools will expect to see semesters where students carry a heavy load (2-3 lab classes).

Program	Typical Requirements (will vary by school)
MD programs (Allopathic medicine)	<ul style="list-style-type: none"> <input type="checkbox"/> Biology: 110-111 or 121/195T (recommended) plus 131, 270/271 [231/232] and additional upper level biology (required) <input type="checkbox"/> General Chemistry: 115-116 or equivalent <input type="checkbox"/> Organic Chemistry: 255/255L & 256/256L or equivalent <input type="checkbox"/> Physics: 220-221 or equivalent <input type="checkbox"/> Math: about half of schools have a requirement—usually for 1 semester of calc. <input type="checkbox"/> English: generally 106 or 108 plus literature or upper level writing class <p>*Some schools require Biochemistry, most recommend it *Some schools have social science/humanities credit hour requirements and/or behavioral science requirements (generally psychology, sociology, or cultural anthropology) *physiology recommended for the MCAT</p>
DO programs (Osteopathic medicine)	Same as MD
Podiatry	Same as MD

Chiropractic Medicine	<p>Similar to MD with a few changes</p> <ul style="list-style-type: none"> <input type="checkbox"/> Biology: 110-111 or 121/195T (recommended) plus 131, 270/271 [231/232] and additional upper level biology (required) <input type="checkbox"/> General Chemistry: 115-116 or equivalent <p>Need 6 hours of organic and/or biochem</p> <ul style="list-style-type: none"> <input type="checkbox"/> Organic Chemistry: often only 1 semester required 255/255L or 257/257L <input type="checkbox"/> Biochem: CHM 561 or 333 or BCHM 307 <input type="checkbox"/> Physics: 220 & 221 (6 hours total and at least 1 course in physics with lab and 1 can be in biomechanics, kinesiology, or exercise physiology) <input type="checkbox"/> Psychology: 120 <input type="checkbox"/> Social Science and Humanities: 15 semester hours <p>Recommended: business management, accounting, statistics, interpersonal comm., anatomy & physiology, genetics, nutrition, microbiology</p>
Dentistry	<p>Generally same as MD, but IU requirements are different from many other dental schools</p> <ul style="list-style-type: none"> <input type="checkbox"/> Biology: 110-111 or 121/195 T (recommended) plus 131, 270/272 [231/232] and additional upper level biology (required) <input type="checkbox"/> Anatomy & Physiology (8 hours): 203-204 or 301 and 302 plus additional physiology to equal 8 semester hours (suggestions: NURS 214, BIO 395G—for other courses contact Health Professions Advisor who will check with dental school on acceptability) <input type="checkbox"/> General Chemistry: 115-116 or equivalent <input type="checkbox"/> Organic: 255/255L-256/256L (most schools require both and no biochem—IU requires 1 semester of organic and 1 semester biochem) <input type="checkbox"/> Biochem: CHM 561 or 333 or BCHM 307 <input type="checkbox"/> Physics: 220-221 or 172 & 272 or equivalent <input type="checkbox"/> English: 106 or 108 (many schools want 2 semesters of English so students should add a literature course or an upper level writing course) <input type="checkbox"/> Highly recommended: course in jewelrymaking, sculpture, or ceramics <p>* Must have hobby or coursework showing manual dexterity</p>

<p>Veterinary Medicine</p>	<p>Requirements are for Purdue, but students should have what they need for other programs as Purdue has a more extensive list than many other programs. Contact Denise Ottinger at Vet School with questions at x47893 or vetadmissions@purdue.edu.</p> <ul style="list-style-type: none"> <input type="checkbox"/> General Biology: 110-111 and 270/271 [231/232] or 121/195T plus 131, 270/271 [231/232] (required) <input type="checkbox"/> Microbiology with lab: 221 or 438-439 <input type="checkbox"/> Genetics with lab: 280/281 [241/242] or AGRY 320/321 <input type="checkbox"/> Inorganic Chem: 115-116 or equivalent (111/112 and 116 accepted) <input type="checkbox"/> Organic Chem: 255/255L-256/256L or 257/257L (many schools require 2 semesters) <input type="checkbox"/> Biochem: CHM 561/562 or 333 or BCHM 307 <input type="checkbox"/> Physics: 220-221 <input type="checkbox"/> Calculus: 1-2 semesters—MA 223, 161, or 165 <input type="checkbox"/> Statistics: 1 semester—STAT 301 or 503 <input type="checkbox"/> English: 106 or 108 plus upper level composition course (examples: ENGL 420 or 421) <input type="checkbox"/> Communication: COM 114 or 212 or 224 <input type="checkbox"/> Animal Nutrition: ANSC 221 <input type="checkbox"/> Careers in Vet Medicine: VM 102 <input type="checkbox"/> Humanities/social sciences: 3 semesters <p>*Also recommended: accounting, biochemistry lab, business, economics, developmental biology, immunology, leadership, personal finance</p>
<p>Optometry</p>	<p>Listed are requirements for IU but generally covered for other programs if include full year organic</p> <ul style="list-style-type: none"> <input type="checkbox"/> General Biology: 110-111 or 121/195T (recommended) plus 131, 270/272 [231/232] plus additional upper level biology (required) <input type="checkbox"/> Advanced Bio: 200 level or above—recommend anatomy & physiology 301-302 or 203-204 (non-majors) <input type="checkbox"/> Microbiology: 221 or 438-439 <input type="checkbox"/> General Chemistry: 115-116 or equivalent <input type="checkbox"/> Organic: 255/255L (many other schools require 1 full year of organic) <input type="checkbox"/> Physics: 220-221 or 172 & 272 <input type="checkbox"/> Calculus: 1-2 semesters depending on school <input type="checkbox"/> English: 106 or 108 plus upper level writing class <input type="checkbox"/> Psychology: 120 <input type="checkbox"/> Statistics: STAT 301 or 503 or PSY 201 or SOC 382

Physical Therapy	<p>No standard requirements but typically need:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Biology: 110-111 and 203-204 <input type="checkbox"/> Chemistry: 115-116 <input type="checkbox"/> Physics: 220-221 <input type="checkbox"/> Statistics: STAT 301 or 503 or PSY 201 or SOC 382 <input type="checkbox"/> Psychology: PSY 120 <input type="checkbox"/> Life Span Course: CDFS 210 <input type="checkbox"/> Several humanities & social science courses <p>*Other required and recommended classes: English comp, exercise science, college algebra, medical terminology, organic chemistry</p>
Occupational Therapy	<p>No standard requirements—recommend the following courses</p> <ul style="list-style-type: none"> <input type="checkbox"/> Biology: 203-204, in addition 110-111 is highly recommended and may be required at some schools <input type="checkbox"/> Chemistry: 111-112 or 115 (highly recommended) <input type="checkbox"/> Physics: 220 <input type="checkbox"/> Social/Behavioral Science: several courses including PSY 120, PSY 350-abnormal, CDFS 210, anthropology or sociology also good choices <input type="checkbox"/> Communications: several courses including English comp, speech, literature <input type="checkbox"/> Statistics: STAT 301 or 503 or PSY 201 or SOC 382 <input type="checkbox"/> Medical Terminology: HSCI 131 <p>*Some schools require college algebra</p>
Public Health	<p>Coursework depends largely on area of interest within field. Generally a broad background is useful including basic sciences (biology and chemistry), ethics, religion, social sciences, communication studies, political science, statistics, psychology</p>
Genetic Counseling	<p>No standard requirements but typically need:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Biology 110-111 or 121/195T (recommended) plus 131, 270/271 [231/232]; in addition they will need classes in genetics and molecular and cell biology <input type="checkbox"/> Chemistry: 115-116 <input type="checkbox"/> Organic Chemistry: 255/255L-256/256L <input type="checkbox"/> Biochemistry: CHM 561 or 333 or BCHM 307 <input type="checkbox"/> Psychology: PSY 120 plus additional courses <input type="checkbox"/> Life Span: CDFS 210 <input type="checkbox"/> Statistics: STAT 301 or 503 or PSY 201 or SOC 382 <p>*Students should remember that genetic counseling involves the counseling side and genetics so they should have a strong background in biology/genetics as well as psychology</p>

Physician Assistant	<ul style="list-style-type: none"> <input type="checkbox"/> General Biology: 110-111 or 121/195T (recommended) plus 131, 270/271 [231/232] and additional upper level biology <input type="checkbox"/> Anatomy & Physiology: 203/204 or 301/302 <input type="checkbox"/> Microbiology: 221 or 438-439 <input type="checkbox"/> General Chemistry: 115/116 <input type="checkbox"/> Organic Chemistry: 255/255L-256/256L (some only require 1 semester) <input type="checkbox"/> Biochemistry: CHM 561 or 333 or BCHM 307 <input type="checkbox"/> Psychology: PSY 120 (more recommended including PSY 350-abnormal) CDFS 210 also recommended <p>*May recommend or require: public speaking, physics, medical terminology, medical ethics *Generally require significant hours of hands-on patient contact which may require additional training*</p>
Dental Hygiene	<p>Generally take initial requirements here and then transfer to IUPUI after 1-1.5 years</p> <ul style="list-style-type: none"> <input type="checkbox"/> Human Anatomy & Physiology: 203-204 <input type="checkbox"/> Microbiology: BIOL 221 <input type="checkbox"/> General Chemistry: CHM 111-112 or CHM 115 <input type="checkbox"/> Public Speaking: COM 212 or 214 <input type="checkbox"/> Psychology: PSY 120 <input type="checkbox"/> Sociology: SOC 100 <input type="checkbox"/> English: 106 or 108 <input type="checkbox"/> 2 arts and humanities courses

Other Advising Tips:

- For most health professions programs, redlined courses do come back and will be included on the student's GPA for that application.
- Grades matter—a lot. Students should shoot for a 3.6 for med/dent/vet schools. Often a 3.4-3.5 for other fields.
- A "C" or better is required in all prerequisite courses—take over if did not achieve this. A "C-" is considered too low and must be repeated.
- Many students should consider a reading course such as GS 294.
- Most fields have an aptitude test (MCAT, DAT, OAT, PCAT, GRE).
- All fields expect to see professional exploration, commitment to public service, shadowing experience.
- All fields appreciate seeing research participation.
- Early application is key!

- Many enrichment programs available for underrepresented students interested in health care—students should consider these. Have them see the Health Professions Advisor if they are interested.
- International students (non-U.S. citizens or permanent residents) are at an extreme disadvantage for medical school admissions (and dental school to some extent)—it is unlikely they will attend a program in the United States. They should be aware of this early in their education.
- *Summer Courses*—especially science courses—should be undertaken carefully. Medical schools and other professional programs typically expect that required classes will be taken at the home institutions. Students should avoid giving the impression that they are avoiding taking difficult classes at Purdue or that they are trying to lighten their load while here (professional schools want students to have several lab classes in a semester). If students are looking for summer classes at another institutions to retake courses, this fails to show that they mastered the material as schools may assume they found an easier version of the course. If, however, a student wants to study abroad and can only do that by using summer courses, this is fine as long as their schedule at Purdue has been rigorous. Summer classes should generally come from a 4 year institution rather than a community college.

Good Source for Exploring Students:

<http://www.explorehealthcareers.org>

If Students Want to Make an Appointment with the Health Professions Advisor

- **They should call 494-4747 (Biology Counseling Office) to set that up (often takes a week to get in)**
- **They can email questions to prehealth@purdue.edu**
- **Some answers may be found at new website at www.purdue.edu/prehealth**

Advisors: If you would ever like to talk about resources that would help you or if you have suggestions for new programs/services or changes in existing prehealth professions programs/services, please contact me at aterstri@purdue.edu

If you have questions and would like to reach me directly, call 494-4752

Timelines

Incoming students:

- Take math/science/English
- Start learning about career interests
- Start getting involved in activities and volunteer work
- Focus on grades!

Freshmen & Sophomores:

- Continue prereq classes and keeping up grades
- Work on getting to know faculty (will need letters)
- Shadow professionals
- Commit to regular volunteer work
- Start looking at requirements for programs you wish to go into

Juniors:

- Meet with health professions advisor (can do this at any point along the way)
- Make sure you have science courses needed for aptitude test
- Continue to gain healthcare experience
- Ask faculty for letters of recommendation (consider using professional file service in Office of Health Professions Advising 1-123 Lilly Hall)
- Register and take the aptitude test for your field
- Gather application materials
- APPLY EARLY
- Work on parallel plan (plan B)

Seniors:

- Complete applications & prepare for interviews
- Continue to gain volunteer experience
- Keep building resume in case you must apply again at end of senior year