Practical Tips for Advising Pre-Professional Students

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Recognizing a Pre-Professional Student

- Primary academic goal is being accepted into a terminal professional program
- Typically undergraduate (especially at our branch campuses)
- Typically interested in medical programs
Commonly Identified Pre-Professional Programs

- Pre-Medicine
- Pre-Dentistry
- Pre-Veterinary
- Pre-Optometry
- Pre-Pharmacy
- Pre-Physical Therapy
- Pre-Occupational Therapy
Incoming pre-professional students often have misconceptions regarding professional school admissions for example:

- “Major” in pre-medicine
- Certain major required
- Misunderstanding of admission statistics and requirements
All pre-professional programs have different pre-requisite requirements, often even within the same field (e.g. separate pharmacy programs may require different pre-requisite courses)

However, there are some typical norms across certain professional program
Medical School

- **IUPUI requires**
  - 2 semesters of general chemistry with lab
  - 2 semesters of organic chemistry with lab
  - 2 semesters of physics with lab
  - 2 semesters of biology with lab
  - (Coursework in psychology, sociology, and biochemistry will be added as pre-requisites for those applying in application year 2014)

- Other courses may be desirable for MCAT preparation and to display a strength in the sciences, however, are not required

[Applying to IU School of Medicine](#)
Understanding admission trends is key

Admission to medical schools is extremely highly competitive, and requires first a very high GPA

Approximately 4000 applicants for the 2012-2013 academic year, with approximately 400 available spots

- Average GPA: 3.7
- Average MCAT: 30.7
Physical Therapy Schools

- **IUPUI requires**
  - 1 semester of human anatomy with lab
  - 1 semester of human physiology
  - 2 semesters of chemistry with lab
  - 2 semesters of physics with lab
  - 1 semester of statistics
  - 1 semester of psychology
  - 1 semester of lifespan development

- [Applying to IUPUI Physical Therapy Program](link)
Admission to Physical Therapy School

- GRE required, however, likely less important than medical school
- Documented job shadowing required
  - Although no average statistics (GPA) given on website, because this program has a long standing and strong reputation, is at a public university, and is in an urban area, it can be assumed it is highly competitive (3.5+)
Developing a Plan

- Creating a plan is especially imperative for pre-professional students due to the competitive nature of professional programs
- To be considered:
  - Understanding Requirements
    - What do I really have to take? What non-required courses would be helpful?
  - Strategy for Major
    - What is my best chance to be maintain a high GPA along with preparing for my standardized exam
  - Strategizing Pre-Requisite Coursework
    - How can I begin/complete pre-requisite coursework as early as possible, without over-loading any certain semester
  - Back-Up Plan
    - How will I know if pursuing a pre-professional program is not for me? What else could I do?
Understanding Requirements

- Strongly encourage students to research their programs early
- Encourage the student to come up with a minimum of 3-5 programs that he or she is likely to apply to, and to investigate these websites extensively
- The student will begin to see the commonalities between the programs they are interested in
Strategy for Major

- Ask the student “how do you feel about science”
- Explore upper level science courses that are not prerequisite classes (e.g. a course description developmental biology)
- What are you interested in? What were your favorite classes in high school?
- Most pre-req’s can cover requirements for other majors
Strategizing Pre-Requisite Coursework

- Starting with science right away
  - Even though these are difficult they are introductory
- Take at least 1 science course each semester
- If possible, in the very first semester, 1 science course is ideal
  - Unless the student indicates a passion for science
- Come up with a plan that includes all pre-requisite coursework preferably by the junior year
  - Standardized tests must be taken well in advance
- Academic year vs. summer
Back-Up Plan

- Necessary for every pre-professional student.
- Essential for anyone who indicates they are not enthusiastic about science.
- Ask "how will you know if this should become necessary?"
  - Discuss repeating coursework.
“Pre-Professional” Program

Pre-Professional Program Course Descriptions

- NAT-S 100 Introduction to Pre-Professional Science Studies (1 cr)
  For Freshman level students
  Provide an overview of the admissions process to professional programs
  Require advanced planning for preparation for acceptance into these highly competitive programs
  - Specifically, students will set academic goals and consider alternate majors and areas of focus (develop a “plan B”) should one become necessary.

- NAT-S 300 Advanced Seminar in Pre-Professional Science Studies (1 cr)
  For Junior level students
  An overview of test preparation techniques for standardized tests such as the MCAT, DAT, and GRE
Minor in Pre-Medicine

Core Requirements
- ___ NAT-S 100 (1) - Introduction to Pre-Professional Science Studies
- ___ NAT-S 300 (1) - Advanced Seminar in Pre-Professional Studies
- ___ BIOL-L 101 (5) - Introductory Biology I
- ___ BIOL-L 102 (5) - Introductory Biology II
- *___ CHEM-C 105/125 (5) - General Chemistry I and Lab
- *___ CHEM-C 106/126 (5) - General Chemistry II and Lab
- *___ CHEM-C 341/343 (5) - Organic Chemistry I and Lab
- ___ CHEM-C 342/344 (5) - Organic Chemistry II and Lab
- *___ PHYS-P 201 or 221 (5) - Physics I
- ___ PHYS-P 202 or 222 (5) - Physics II

Recommended
- ___ MATH-M 119 (3) or 215 (5) - Calculus I
- ___ BIOL-L 211 (3) - Molecular Biology
- ___ BIOL-L 311/319 (6) - Genetics
- ___ BIOL-L 312 (3) - Cell Biology
- ___ MICR-M 310/315 (5) - Microbiology
- ___ CHEM-C 484 (3) - Biochemistry
- ___ PSY-P 101 (3) - Introduction to Psychology I
- ___ PSY-P 102 (3) - Introduction to Psychology II
- ___ SOC-S 163 - Social Problems

Recommended Minimum Cumulative GPA: 3.6
Recommended Minimum Science GPA: 3.6
Remember...

- It is not possible to memorize every requirement at every institution
- Encouraging the students own research is key
  - Setting very specific goals
- Strategize with requirements, major, and back-up plan