Pre-Health Organizational Meeting

September 5, 2013

Health Professions Advisory Committee

GRINNELL COLLEGE

Outline of Meeting

- Introduce members of the Health Professions Advisory Committee (HPAC)
- Describe the functions of HPAC
- Hand out brochure
- Discuss coursework for first two years
- Share some information on the application process
- Answer your questions

Health Professions Advisory Committee (2013–2014)

Co-Chairs

- Shannon Hinsa-Leasure (Biology), Co-Chair
- Steve Sieck (Chemistry), Co-Chair

Faculty Committee Members

- Ben DeRidder (Biology)
- Chris Ralston (Psychology)
- Jim Swartz (Chemistry)
- Maria Tapias (Anthropology)
- Jerod Weinman (Computer Science)
- Sujeev Wickramasekara (Physics)

Staff Support/Contact

- Michelle Sears (Science Division Office)

Center for Careers, Life, and Service (CLS)

- Steve Gump (Assistant Director of Graduate and Professional School Advising)

SHOT: Students on Health-Oriented Tasks

Student Leaders

- **Tela Ebersole** ’16 [**ebersole**] – nursing school; physician assistant programs
- **Will Ewing** ’15 [**ewingwil**] – veterinary school; public health
- **Kayleigh Kresse** ’15 [**kresseka**] (abroad spring 2014) – medical school; dental school; pharmacy school
- **Ankita Sarawagi** ’15 [**sarawagi**] (abroad fall 2013) – medical school; dental school; pharmacy school

Goals

- Provide students with resources to explore health-related fields
- Connect with alumni
- Facilitate communication among students, HPAC, and CLS

How HPAC Can Support You

1. Occasional meetings on topics of interest to students interested in the health professions:
   a. Careers in the health professions (public health, physical therapy, pharmacy, veterinary medicine, etc.)
   b. Information about particular schools
   c. Application process
2. HPAC website: http://www.grinnell.edu/academic/hpac
3. Advise students in choosing health related careers and appropriate programs
4. Upon request, write the committee recommendation letter for applicants

CLS Services

Job Shadowing

- Facilitate **shadowing** at Grinnell Regional Medical Center (GRMC); limit of 12 hours per calendar year
- Coordinate **externship program** over spring break (info sessions in early December)

Internships

- Provide extensive resources for **internships** (summer, mostly)
- Manage Grinnellian-only **GRINNELLINK Externship Program** (funded internships, some in health-related fields)

Service

- Help match with **meaningful service experiences**

Graduate & Professional School Advising

- Help with **selecting programs and schools**
- Review **application essays**
- Conduct **mock interviews**
- Facilitate web-based **MCAT-prep course** (through Kaplan)

Upcoming CLS-Sponsored Events

Save the Dates!

Preparing for Careers in the Health Professions

Thursday, September 19, 8:00 pm

Noyce 1023

Graduate & Professional School Fair

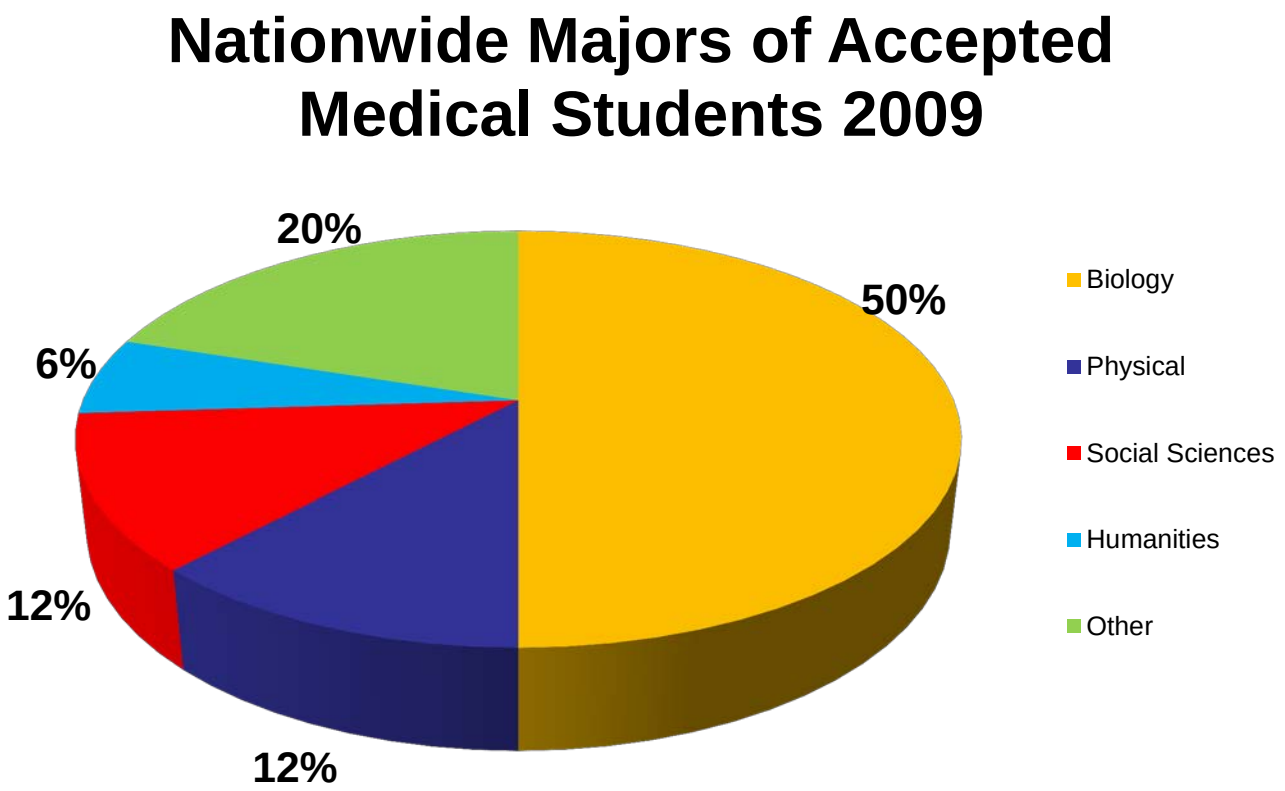
Tuesday, October 8, 10:00 am–1:00 pm

JRC 101

Upcoming Events

- You will be informed of upcoming events via the HPAC list-serv
- Seminars (**Biology** Department Fridays at noon in 1023, **Chemistry** Thursdays at noon in 2022.
  - **9/19** Dr. McReynolds – Monsanto and formally of Pfizer
  - **9/20** Dr. Torry from Drake – info session on pharmacy
  - **10/7** Dr. Dutta – University of Kansas Medicinal Chemistry
  - **10/11** Dr. Allen USDA ARC – micro/veterinary medicine opportunities
- 2014 Grinnell College Liberal Arts in Health Care Professions Symposium (Feb 7-8)

Choice of Major



With careful planning, pre-health students can choose a major in a non-science department

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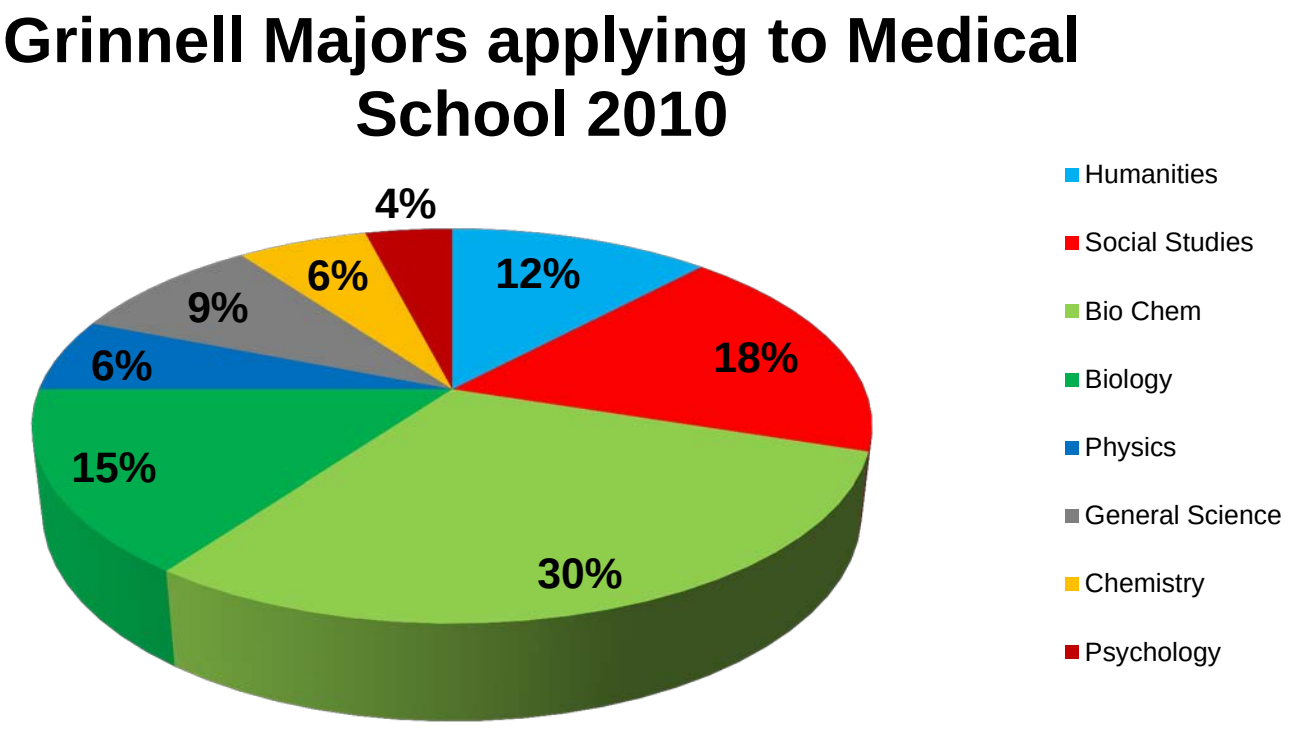


With careful planning, pre-health students can choose a major in a non-science department.

Classes Necessary for Health Professions

- Most schools require a year of Biology and Organic
  - At Grinnell this is BIO 251, 252, CHM 221, and CHM 222

- You absolutely need to take both CHM 129 or 210 and BIO 150 this year!
  - These are the pre-requisites for Organic (CHM 221) and Molecules, Cells, and Organisms (BIO 251)

Other Introductory Courses in Science

- You need to finish up Calculus for the Physics pre-requisite (if you take Physics at Grinnell)
- It is a good idea to take CHM 210 before your senior year
- http://www.grinnell.edu/academic/hpac/study

The MCAT
(Medical College Admissions Test)

- Covers basic sciences (physical and biological), writing, and verbal reasoning
- Should be taken ~ 12 – 18 months prior to your expected entry into medical school
- Most students take it late spring of their junior or senior year in college (note: if the latter, this will delay matriculation into medical school by one year)
- Master the content (e.g. take courses), become familiar with the exam, practice, practice, practice

Required/Recommended Courses for Medical School (2015)

Natural Science Section

- 1 year of Biology
  - (Biology 251,252, note 150 is a prerequisite for 251)
- 2 years of Chemistry
  - (Chemistry 129, 210, 221, 222)
- 1 year of Physics
  - (Physics 131 and 132)
- 1 semester Biological Chemistry
- 1 year Calculus (*Calculus is not required for admission to most medical schools. However, calculus is required for Physics at Grinnell College*)

Critical Analysis and Reasoning Skills

- 1 year of English
  - (Tutorial counts for one semester; second semester should stress literature. Other social science and humanities courses (ethics, philosophy, cultural studies and population health).
- Other Social Science and Humanities courses (philosophy; ethics; cultural studies)

Social And Biological Foundations of Behavior (unclear now)

- 1 semester Psychology
- 1 semester Sociology

The Application Process

- Complete courses
- Get relevant experience (and prepare to “make your case”)
- Prepare for and take the MCAT
- Choose target medical schools (esp. in state of residence)
- Submit request to Grinnell HPAC for committee letter preparation
- Submit primary application through AMCAS and AACOMAS (summer, 1 year prior to expected matriculation)
- Submit secondary applications and request to have committee letter sent to medical schools
- Interview
- Acceptance

New MCAT Exam (2015)

Natural Sciences Sections

Contains concepts in biology, general and organic chemistry, biochemistry, and physics

Social and Behavioral Science Sections

- *Psychological, Social, and Biological Foundations of Behavior*
- Introductory psychology and sociology as well as the introductory biology concepts relating to mental processes and behavior
- Socio-cultural and behavioral determinants of health and health outcomes

Critical Analysis and Reasoning Skills Section

- Analyze, evaluate, and apply information provided by passages from a wide range of social sciences and humanities disciplines.
- No specific knowledge needed
- Tests the analysis and reasoning skills you need for medical school, and may prompt you to read broadly as you prepare
- Ethics and philosophy, cultural studies, and population health are included

Criteria for Acceptance into Medical School

- *__Grades__ (Mean GPA: 3.66 MD; 3.50 DO)
- *__MCAT Scores__ (Mean Sum MCAT, 30.8 MD; 26.5 DO)
- Committee Letter
- Interview
- Extracurricular Activities
- Health-Related Experiences
- Other Life Experiences

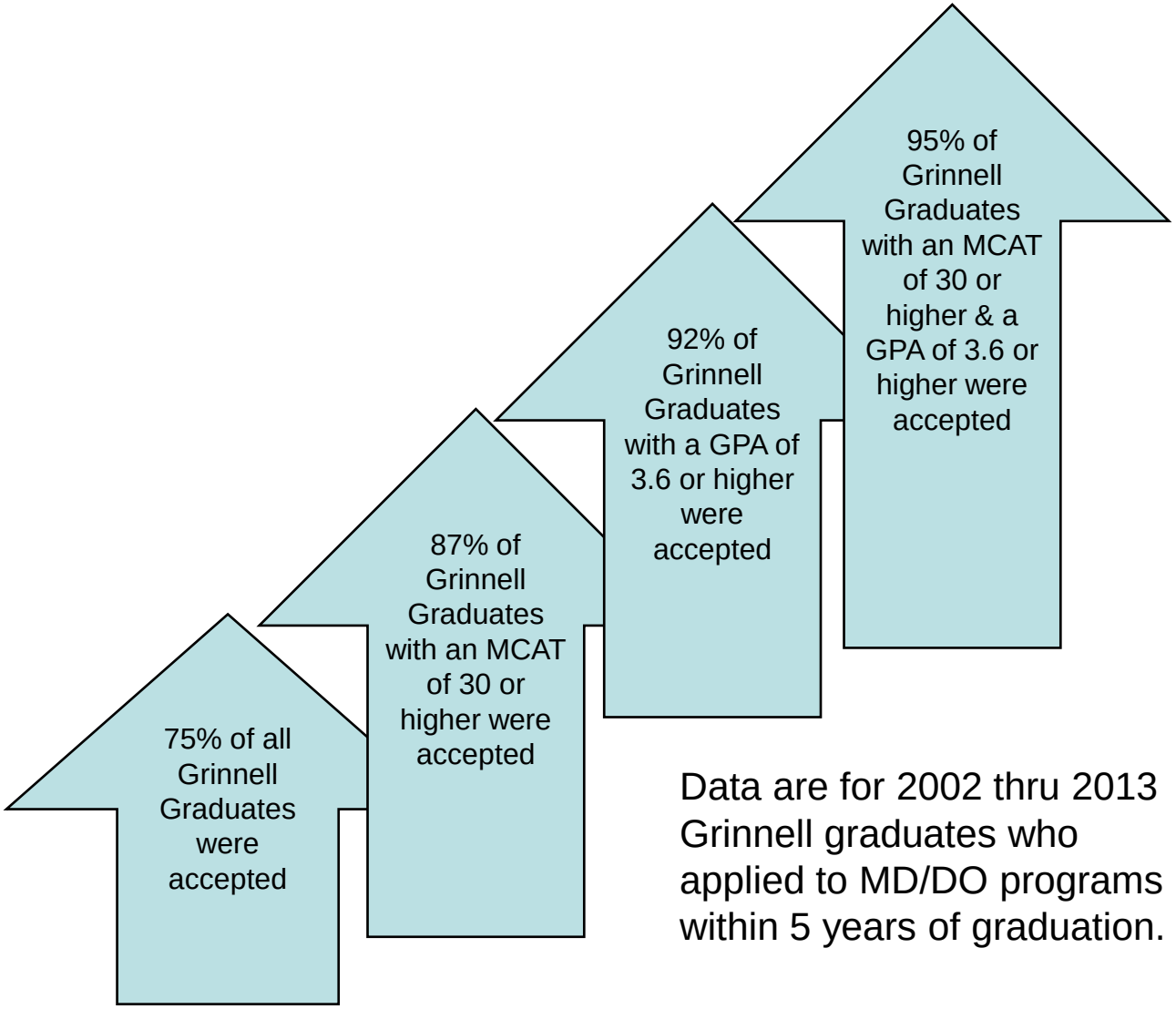
(*For all accepted students/U.S. Medical Schools)

Recent Application Data

- There are roughly 60–70 of you here today
- We usually have 15–25 apply each year
- Up to 75% of you will change your plans – that is okay!

- In 2009, there were 42,269 applicants to medical school; 12,617 to osteopathic programs.
- 18,390 enrolled in medical school;4,700 in osteopathic
- 43.5% matriculation rate (close to acceptance rate)

Recent Grinnell Data



Data are for 2002 thru 2013 Grinnell graduates who applied to MD/DO programs within 5 years of graduation.

Basic Advice

- Relax; you don’t have to complete all of the requirements in one term, or even one year.
- Take other courses besides science.
- Study.
- Find opportunities to learn about health professions (e.g., internships, shadowing).
- Find opportunities to demonstrate your social commitment and ability to serve people.
- Ask questions.

New MCAT Exam (2015)

- The natural sciences sections of the MCAT2015 exam reflect recent changes in medical education. They test the concepts in biology, general and organic chemistry, biochemistry, and physics that medical school faculty rate as most important to entering students' success. Though undergraduate course offerings differ by institution, these concepts are covered in many undergraduate schools in introductory sequences in biology, general chemistry, organic chemistry, and physics and in first-semester biochemistry courses.
- ▪ The MCAT2015 exam includes a section on the social and behavioral sciences: *Psychological, Social, and Biological Foundations of Behavior*. This section tests your knowledge of important introductory psychology and sociology concepts, as well as the introductory biology concepts that relate to mental processes and behavior. The addition of this section to the exam recognizes the importance of socio-cultural and behavioral determinants of health and health outcomes.
- ▪ The *Critical Analysis and Reasoning Skills* section asks you to analyze, evaluate, and apply information provided by passages from a wide range of social sciences and humanities disciplines. It does not require specific knowledge of these disciplines, but it tests the analysis and reasoning skills you need for medical school, and may prompt you to read broadly as you prepare. Along with many others, passages about ethics and philosophy, cultural studies, and population health are included. (From 2015 Preview guide MCAT)