



**Pre-Pharmacy
Education
at the
University
of Oregon
2009-10**

Last revision: July 2009

What is Pharmacy?

Pharmacists play a vital role in the health care system through the medicine and information they provide. A pharmacist's responsibilities include a range of care for patients, from dispensing medications to monitoring patient health and progress to maximize their response to the medication. Pharmacists also educate consumers and patients on the use of prescriptions and over-the-counter medications, and advise physicians, nurses, and other health professionals on drug decisions. Pharmacists also provide expertise about the composition of drugs, including their chemical, biological, and physical properties and their manufacture and use.

What are the occupational options for pharmacists?

According to the Occupational Outlook Handbook, most pharmacists work in a community setting, such as a retail drugstore, or in a health care facility, such as a hospital, nursing home, mental health institution, or neighborhood health clinic. Some pharmacists specialize in specific drug therapy areas, such as intravenous nutrition support, oncology (cancer), nuclear pharmacy (used for chemotherapy), geriatric pharmacy, and psychopharmacotherapy (the treatment of mental disorders by means of drugs). Increasingly, pharmacists are pursuing nontraditional pharmacy work. Some are involved in pharmaceutical research, marketing or sales. Other pharmacists work for the government, public health care services, the armed services, and pharmacy associations. Finally, some pharmacists are employed full time or part time as college faculty.

What is the job outlook for pharmacists?

According to the American Association of Colleges of Pharmacy (AACCP), "The demand for trained pharmacy professionals has exploded in recent years due to the rapid growth of the health care and pharmaceutical industries. Most pharmacy graduates can expect to receive multiple job offers at the time of graduation..." The Occupational Outlook Handbook states that the median annual wage and salary earnings of pharmacists in May 2006 were \$94,520. Median annual earnings in the industries employing the largest numbers of pharmacists in May 2006 were departments stores (\$99,050), grocery stores (\$95,600), general medical and surgical hospitals (\$93,640), and pharmacies and drug stores (\$94,640).

What are the education requirements?

Students must earn a Pharm.D. degree to become a pharmacist. At the end of the Pharm.D. program students will take the NAPLEX (North American Pharmacist Licensure Examination) in order to earn their license. Pharm.D. programs require at least 2 years of prerequisite study, although the majority of

programs require at least 2 years of prerequisite study, although the majority of colleges admit students with 3 years or more of college study. Some schools require or give preference to those who earn a baccalaureate (B.A./B.S.) degree prior to admission. Pharm.D. programs are typically 3-4 years in length.

What are the admission requirements?

Admission requirements vary from school to school. Students are advised to view the Pharmacy School Admission Requirements (PSAR) online at www.aacp.org or to go to the individual school websites. It is highly recommended that you consult with the pharmacy advisor when planning prerequisite study. Schools typically require coursework in biology, general chemistry, organic chemistry, mathematics, and English. Many schools require microbiology, anatomy and physiology, and physics, as well as various courses in social sciences and/or arts and humanities. The program plan included in this pamphlet covers the prerequisites required for application to Oregon State University.

Are there additional requirements?

Approximately 75% of the pharmacy schools require the PCAT (Pharmacy College Admission Test). It is administered four times per year and includes subtests on the basic principles of biology and chemistry, quantitative ability, verbal ability, and reading comprehension. The test also includes an essay section to evaluate critical thinking skills. OSU does NOT require the PCAT. Some schools require letters of recommendation from applicants. Letters from science faculty are recommended, as well as a letter from a pharmacist if students have experience in the field.

How do I apply?

Approximately half of the pharmacy schools use the PharmCAS application service (www.pharmcas.org). This is a centralized application service that allows students to submit a single application and one set of official transcripts to multiple Pharm.D. programs. Students applying to non-participating schools should contact the individual programs for application materials.

Pre-Pharmacy Objective

To declare a pre-pharmacy professional objective email Arwen Spicer at arwens@uoregon.edu, please include your UO ID number in the email.

Pharmacy

Sample Three-Year Course Plan for Common Prerequisites

Fall Term	Winter Term	Spring Term
CH 221 (4) CH 227 (2) MATH 111 (4) WR 121 (4) (14 Credits)	CH 222 (4) CH 228 (2) MATH 112 (4) WR 122 or 123 (4) BI 211 ⁴ (4) (18 Credits)	CH 223 (4) CH 229 (2) MATH 251 (4) BI 212 ⁴ (4) (14 Credits)
BI 214 ⁴ (4) CH 331 (4) EC 201 (4) CHEM 337 (3) (15 Credits)	CH 335 (4) BI 322 (4) CH 338 (3) MATH 243 (4) (15 Credits)	CH 336 (4) BI 330 (3) BI 331 (2) PEC 241 ² (2) Elective ³ (4) (15 Credits)
ANAT 311 (3) ANAT 314 (2) HPHY 313 (3) HPHY 316 (2) PHYS 201 (4) PHYS 204 (2) (16 Credits)	ANAT 312 (3) ANAT 315 (2) HPHY 314 (3) HPHY 317 (2) PHYS 202 (4) PHYS 205 (2) (16 Credits)	PHYS 203 (4) PHYS 206 (2) PSY 201 (4) CPSY 410 ¹ (3) (13 Credits)

1. This course satisfies OSU's Interpersonal Communication requirement.
2. This course is for CPR certification. Course can also be taken through the Red Cross.
3. Consider selecting an elective from the Arts & Letters or Social Science Group courses. Group courses can be used to finish a bachelor's degree while in the second year of pharmacy at OSU.
4. These biology courses can be substituted with the BI 251-253 sequence; however CH 223 is a prerequisite to BI 251.

More information can be found at the American Association of Colleges of Pharmacy website: www.aacp.org.

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