

PRE-PHARMACY

JMU Pre-professional Health Programs



GENERAL INFORMATION

Pharmaceutical care encompasses the full range of pharmacists' skills, knowledge, and ability in providing medication services to patients. Pharmacists must be fully acquainted with the physical and chemical properties of drugs and their behavior in biological systems. Pharmacists often serve as educators in the proper use of drugs both for the public and health practitioners. The principal goal of pharmaceutical care is to achieve definite outcomes from medication use that improve patients' quality of life. Pharmacists are professionals committed to public service and the achievement of this goal. Career options in pharmacy include academic pharmacy, community practice, government agencies, hospice and home care, hospital and institutional practice, long-term care, consulting pharmacy, medical and scientific research, and uniformed (public health) services.

There are 124 colleges and universities offering professional programs that lead to the Doctor of Pharmacy (Pharm.D.) degree. Pharmacy programs require at least two years of pre-professional (undergraduate) study followed by four years of professional study. Most pharmacy students complete three or more years of college before starting a pharmacy program. Some pharmacy schools do give preference to students who have earned a bachelor's degree. Requirements for admission into a pharmacy program vary. The American Association of Colleges of Pharmacy (AACP) publishes annually an admission requirements guidebook entitled the *Pharmacy School Admission Requirements (PSAR)* (www.aacp.org).

CHOOSING A MAJOR

Many pre-pharmacy students obtain a Bachelor of Science (B.S.) or Bachelor of Arts (B.A.) degree while completing the requirements for admission to pharmacy school. **Pharmacy school admission committees do not look for a particular undergraduate major**, as long as applicants have completed the course requirements and have demonstrated proficiency in the sciences as evidenced by the science GPA and the scores on the Pharmacy College Admissions Test (PCAT).

PREREQUISITES

All pharmacy schools have a set of prerequisite courses and experiences that may or may not be unique to the particular program. The AACP publishes an admission requirements guidebook entitled the *Pharmacy School Admission Requirements (PSAR)* (www.aacp.org). Approximately two-thirds of all pharmacy degree programs in the U.S. participate in the Pharmacy College Application Service (PharmCAS) for admission. Please visit the PharmCAS web site to learn more about the requirement and the admissions process.

The general requirements for admission to pharmacy school can be met at JMU with the following coursework:

BIO 114 Organisms (4 credit hours)

BIO 214 Cell & Molecular Biology (4 credit hours)

PHYS 140/150 College Physics I & II

(8 credit hours; including laboratory 140L-150L)

MATH 220 Elementary Statistics (3 credit hours)

Calculus (MATH 205, 231, or 235 as appropriate) (3-4 credit hours)

CHEM 131/132 General Chemistry I & II

(8 credit hours; including laboratory 131L-132L)

CHEM 241/242 Organic Chemistry I & II

(8 credit hours; including laboratory 242L)

GCOM 121 Fund. Human Comm.: Presentations *or* **GCOM 122** Fund. Human Comm.: Individual Presentations

English (composition & literature: ENG, GENG, GHUM 200 or GWRIT) (6 credit hours)

Electives – Requirements depend upon professional program (18 credit hours)

ACADEMIC RECORD

Students will, as part of the application process, be asked to submit a transcript of all college/university course work. Overall grade point average (GPA), as well as the GPA in math and science courses, will often be used in the review of the application. Most pharmacy programs require a minimum GPA in order to make application. Please refer to individual program prerequisites for details.

PREPARATION TIMELINE

Most applications for pharmacy programs will need to be completed during the fall semester of the year the student is applying. Students should have a vast majority of the prerequisites completed by the time of application. Both the chemistry and physics requirements involve yearlong sequences. Other required courses may have sequencing requirements. Students need to carefully plan each semester to ensure that all requirements can be met within the chosen time frame.

REQUIRED STANDARDIZED TEST

More than 75 percent of all pharmacy programs require applicants to submit scores from the Pharmacy College Admission Test (PCAT). The six content areas measured by the PCAT include: verbal ability, biology, reading comprehension, quantitative ability, chemistry, and a written essay. Information about the PCAT is available at: www.pcatweb.info. Please refer to individual program requirements in the PSAR for alternate standardized tests that may be required.

EXPERIENCE

Pharmacy programs encourage or require applicants to have volunteer or paid experience working with patients in a pharmacy or health-related setting (hospital, nursing home, etc). Experience in a pharmacy setting may be an important factor in the admissions process. Students are encouraged to begin accumulating this experience as soon as possible.

EVALUATIONS/RECOMMENDATIONS

All pharmacy programs require letters of recommendation/evaluation. Students should establish relationships with professionals in the university setting as well as in the work place.

JMU ADVISORY RESOURCES

The Institute for Innovation in Health and Human Services (IIHHS) and its staff of dedicated coordinators function to assist pre-professional students in their health career endeavors and help them realize their aspirations by providing the specific information, advice and assistance that is unique to the health professions and critical to their success. **Dr. Donna Amenta is the Pre-pharmacy Program Coordinator** (amentads@jmu.edu, PH/CH 3128, 540-568-7384)

The Pre-Pharmacy Society is a JMU student organization for students interested in pharmacy as a career. This organization meets once a month, usually in the evenings. Activities include field trips to pharmacy programs, guest speakers and information sharing. A faculty member knowledgeable in the area of pharmacy serves as club advisor. Students interested in pharmacy are encouraged to become a member of the Pre-Pharmacy Society. The JMU Virginia Epsilon Chapter of Alpha Epsilon Delta (Health Pre-professional Honor Society) also welcomes students to their meetings and encourages students to become members.

Note: Students planning professional health careers should discuss these goals with their pre-professional health program and undergraduate major advisors. It is important to begin this planning process when students' studies are initiated; it is imperative that students plan career options. The admissions requirement information presented above should be used only as a guide when planning students' pre-professional health curriculum. It is important that students do not interpret these guidelines as definitive statements regarding the admission requirements or policies of the individual schools and colleges of professional health. Each institution specifies its own requirements and procedures. It is essential that students become familiar with these requirements and make appropriate course selections in consultation with their pre-professional health and academic advisors. Absolute admission requirements are limited to provide necessary flexibility in the undergraduate program. The course requirements for most professional health programs are similar and usually specify minimum credit in biology, chemistry and physics. Schools of professional health recognize the desirability of students having a variety of interests and diverse backgrounds. Applicants are urged to obtain a broad cultural background in such fields as literature, social science, psychology and the fine arts.

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