Pre-Pharmacy

The degree needed to practice pharmacy is called the Doctor of Pharmacy, or the ‘Pharm. D.’ The college work for this degree is divided into two parts: the pre-pharmacy curriculum and the professional curriculum. The pre-pharmacy curriculum can be taken at the pharmacy school or at another college or university, whereas the professional curriculum must be taken at a school of pharmacy. Pre-professional requirements for pharmacy are available through the College of Science, Technology, and Agriculture. In general, students may fulfill two years at Southeast of the total six-year curriculum, then complete the training at a professional school. However, there are exceptions. Some schools, such as the University of Mississippi, have three years of pre-pharmacy, with a seven-year program. Although the first-year requirements at most pharmacy schools are similar, there are significant differences with some schools. Second-year requirements vary even more from school to school. Therefore, the student should be sure of his/her preferred school’s requirements. The student should also be aware that few, if any, pharmacy schools accept transfer students for the spring semester, so the student should plan coursework accordingly. Most pre-professional curricula place a strong emphasis on biology, chemistry and mathematics. Various other non-science courses are usually required, such as English and social science courses. A student should use the specific requirements of the schools he/she would prefer to attend in planning a course of study. Admission into Pharm. D. programs is competitive. Pharmacy schools take into consideration course grades, PCAT scores, previous pharmacy experience, and communication skills.

Pre-pharmacy students will...

- Gain a strong foundation in chemistry, science, and math which will prepare them for the rigors of the professional pharmacy program curriculum.
- Interact closely with experienced faculty in and out of the classroom who are recognized for their writing, training, professional affiliations, and expertise.
- Study in the state-of-the-art, first-rate learning environment provided by the newly renovated Magill Hall of Science.

Career Planning

With a Doctor of Pharmacy degree, graduates are prepared for the practice of pharmacy in a variety of settings. The majority of graduates practice either in an independent pharmacy or chain store pharmacy, or in a hospital. Others go into industry as sales representatives or liaisons with federal and state governments, or in the preparation, analysis, and testing of new drug compounds. Some pharmacists continue their education and obtain PhD or medical degrees, pursuing careers in clinical pharmacy, research, or education. Salaries for licensed Doctor of Pharmacy graduates start at around $100,000.

CAREER OPPORTUNITIES:

- Retail pharmacist
- Hospital pharmacist
- Clinical pharmacist
- Industrial pharmacy
- Pharmaceutical sales
- University teaching and research
- Graduate study in pharmaceutical science (pharmacology, medicinal chemistry, physical pharmacy), chemistry or biology.
EXAMPLE CURRICULUM

University of Missouri-Kansas City School of Pharmacy

- B153 Introduction to Organismal Biology (4) or Z0200 Animal Biology (3)
- B154 Genetics and Cellular Biology (4) or BO200 Plant Biology (4)
- B200 General Microbiology (3)
- B381 Molecular Genetics (3)
- B404 Cell Biology (3)
- B543 Pathogenic Microbiology (2)
- B544 Pathogenic Microbiology Laboratory (1)
- BS113/013 Anatomy and Physiology I (4)
- BS114/014 Anatomy and Physiology II (4)
- CH185/085/005 General Chemistry (5)
- CH186 Foundations of Inorganic Chemistry (3)
- CH187 Inorganic Chemistry and Qualitative Analysis Laboratory (2)
- CH341 Fundamentals of Organic Chemistry (4)
- CH342 Organic Chemistry Laboratory I (1)
- CH343 Organic Chemistry Laboratory II (2)
- EN100 English Composition (3)
- EN140 Rhetoric and Critical Thinking (3)
- HL113 Medical Terminology (3)
- MA140 Analytical Geometry and Calculus I (5)
- PH120/020 Introductory Physics I (5)
- SC105 Fundamentals of Oral Communication (3)
- US105 American History I (3) or US107 American History II (3) or PS103 U.S. Political Systems (3)

Recommended but not required

- CH351 Foundations of Biochemistry (3)
- CH532 Advanced Biochemistry (2)

Southern Illinois University-Edwardsville School of Pharmacy

- B153 Introduction to Organismal Biology (4)
- B154 Genetics and Cellular Biology (4)
- BS113 Anatomy and Physiology I (4)
- BS114 Anatomy and Physiology II (4)
- CH185 General Chemistry (5)
- CH186 Foundations of Inorganic Chemistry (3)
- CH187 Inorganic Chemistry and Qualitative Analysis Laboratory (2)
- CH341 Fundamentals of Organic Chemistry (4)
- CH342 Organic Chemistry Laboratory I (1)
- CH343 Advanced Organic Chemistry (3)
- CH344 Organic Chemistry Laboratory II (2)
- EN100 English Composition (3)
- EN140 Rhetoric and Critical Thinking (3)
- MA140 Analytical Geometry and Calculus I (5)
- MA223 Elementary Probability and Statistics (3) or PY271 Research Design (5)
- PH120/020 Introductory Physics I (5)
- PH121/021 Introductory Physics II (5)
- PY101 Psychological Perspectives on Human Behavior (3)
- PS103 U.S. Political Systems (3)

To explore online, visit www.semo.edu/costa/advising/index.htm

St. Louis College of Pharmacy

- B153 Introduction to Organismal Biology (4)
- B155 Introduction to Organismal Biology (4)
- B156 Introduction to Organismal Biology (4)
- B200 General Microbiology (3)
- B381 Molecular Genetics (3)
- B404 Cell Biology (3)
- B543 Pathogenic Microbiology (2)
- B544 Pathogenic Microbiology Laboratory (1)
- BS113/013 Anatomy and Physiology I (4)
- BS114/014 Anatomy and Physiology II (4)
- CH185/085/005 General Chemistry (5)
- CH186 Foundations of Inorganic Chemistry (3)
- CH187 Inorganic Chemistry and Qualitative Analysis Laboratory (2)
- CH341 Foundations of Organic Chemistry (4)
- CH342 Organic Chemistry Laboratory I (1)
- CH343 Advanced Organic Chemistry (3)
- CH344 Organic Chemistry Laboratory II (2)
- EN100 English Composition (3)
- EN140 Rhetoric and Critical Thinking (3)
- MA140 Analytical Geometry and Calculus I (5)
- PS103 U.S. Political Systems (3)

University of Mississippi School of Pharmacy

- B153 Introduction to Organismal Biology (4) or Z0200 Animal Biology (3)
- B154 Genetics and Cellular Biology (4) or BO200 Plant Biology (4)
- B200 General Microbiology (3)
- B381 Molecular Genetics (3)
- B404 Cell Biology (3)
- B442 Immunology (3)
- B543 Pathogenic Microbiology (2)
- B544 Pathogenic Microbiology Laboratory (1)
- BS113/013 Anatomy and Physiology I (4) and BS114/014 Anatomy and Physiology II (4) or BS332 Human Physiology (3)
- CH185/085/005 General Chemistry (5)
- CH186 Foundations of Inorganic Chemistry (3)
- CH187 Inorganic Chemistry and Qualitative Analysis Laboratory (2)
- CH341 Foundations of Organic Chemistry (4)
- CH342 Organic Chemistry Laboratory I (1)
- CH343 Advanced Organic Chemistry (3)
- CH344 Organic Chemistry Laboratory II (2)
- CH351 Foundations of Biochemistry (3)
- CH352 Advanced Biochemistry (2)
- EC225 Principles of Macromolecules (3)
- EN100 English Composition (3)
- EN140 Rhetoric and Critical Thinking (3)
- MA140 Analytical Geometry and Calculus I (5)
- MA223 Elementary Probability and Statistics (3) or PY271 Research Design and Analysis I (5)
- PH120/020 Introductory Physics I (5)
- PH121/021 Introductory Physics II (5)
- SC105 Fundamentals of Oral Communication (3)
- UH52 Medical Ethics (3)
- Non-professional Electives
- Social or Behavioral Sciences (5)
- Humanities and fine arts (5) (minimum of 3 hours in each of these areas)