What does it mean to be Pre-Pharmacy?

Western has an estimated 80 students on a pre-pharmacy track. Pre-Pharmacy students identify themselves as such, formally or informally. Western does not offer a “Pre-pharmacy” major and there is no formula for getting into pharmacy school. Applicants are evaluated by pharmacy school selection committees in multiple areas in a process known as holistic review. Many aspects are important: PCAT, GPA (both cumulative and science), letters of recommendation, extracurricular activities, pharmacy awareness, personal attributes, and interview as well as legal and social records. Due to variations in admission requirements, students should research the schools of their choice for detailed information at www.aacp.org/resources/student/Pages/default.aspx.

Pre-Pharmacy Education

Western provides courses which prepare students foundationally for application to colleges of Pharmacy. Pharmacy schools emphasize the importance of a liberal arts education and do not recruit students from one specific major or discipline. Thus, you have flexibility in planning your educational program. Use your undergraduate years to explore many academic fields, to develop basic skills and knowledge, to demonstrate expertise and to experience a field of study (major) of your choice. Pick one in which you excel and enjoy. Aside from the sciences, examples of majors pursued by pre-pharmacy students include Anthropology, Behavioral Neuroscience, Communication Science Disorders, Psychology, languages, History, and Business.

Program Checkpoints: (Note: each persons’ path will look different; use this as a guide ONLY)

Freshman year:
• Take Math Placement Test and begin appropriate math sequence to complete Calculus I: MATH 124.
• Begin General Chemistry series as soon as possible: CHEM 121, 122, 123 [or Honors: 125, 126, 225].
• Begin General Biology series winter or spring quarter: BIOL 204, 205, 206.
• Work on GUR courses, including ENG 101 and ECON 206.
• Begin prerequisite and co-requisite courses for possible major.
• Meet with Pre-Healthcare Advisors (OM 280) to develop a plan of study.

Sophomore year:
• Begin Organic Chemistry series: CHEM 351, 352, 353; labs: 354 and 355 or 356 (depending upon major).
• Take Microbiology with lab: BIOL 345, 346 {Upper-division preferred} or BIOL 245 (or do junior year).
• Take a second English composition course: ENG 201 or 202.
• Take stats class: MATH 240 (or equivalent in major, if offered).
• Declare or apply for major.
• Begin shadowing Pharmacists sophomore and/or junior year.

Junior year:
• Research pharmacy schools and graduate programs.
• Prepare for the Pharmacy College Admission Test (PCAT) to be taken the summer after junior year.
• Begin Biochemistry: CHEM 471, 472 (or take these in senior year).
• Depending upon schools, take Anatomy & Physiology: BIOL 348, 349 or equivalent elsewhere.
• Take a third English composition course: select from ENG 201, 202, 301 or 302.
• Take a communication course: COMM 327 or 331.
• Begin primary application to the Pharmacy College Application Service (PharmCAS).
• Draft personal statement.
• Request letters of recommendation from professors and professionals.

Senior year:
• Prepare for possible pharmacy school interview with a mock interview (or do spring of junior year).
• Complete major, GUR, WP, and other graduation requirements.
• Two quarters before graduation, meet with declared major advisor and apply for graduation.

NOTE: Advanced Placement may not be recognized by professional schools as college-earned credit. Check with each school regarding what is acceptable. [It is better to view any earned credits as qualifying to enroll in upper-division courses rather than as “testing out” of prerequisites.]

PCAT: Most pharmacy schools require the Pharmacy College Admission Test (PCAT). This test measures both scientific and general academic knowledge within four scored sections of Biological Processes, Chemical Processes, Critical Reading, and Quantitative Reasoning.
Core Courses

This list is intended to be a broad guideline, covering the requirements for entrance into both WSU and UW, as well as most other Pharmacy programs. Contact individual schools for requirement specifics.

Non-Science Requirements:

Written Communication: 10 credits selected from ENG 101, 202, 301 or 302 (5 credits each)

Interpersonal Communication: COMM 327 or 331 (5, 3)

Microeconomics: ECON 206 (4)

Introductory Psychology: PSY 101 (5)

Philosophy—Ethics, Logic, or Critical Thinking: At least five credits selected from PHIL 102, 112, 202, 320 (3 credits each)

Science and Math Requirements:

General Chemistry sequence: CHEM 121¹, 122, 123 (5, 5, 4) or Honors: CHEM 125¹, 126, 225 (5, 5, 5)

General Biology sequence: BIOL 204², 205, 206 (5 each)

Organic Chemistry sequence: CHEM 351, 352, 353 (4, 4, 3); labs: 354 & 355 or 356 (3, 3/2) (CHEM 375 NOT acceptable)

Biochemistry: CHEM 471, 472 (4, 4)

Microbiology with lab: BIOL 345, 346 (3, 2) (Upper-division preferred) or BIOL 245 (5)

Anatomy and Physiology: BIOL 348, 349 (5, 5)

Calculus: MATH 124 (5)

Statistics: MATH 240 (4) or BIOL 340 (5) or PSY 301 and 302 (5 each)

¹Completion of MATH 114 or Math Placement into MATH 115 or higher is a prerequisite for CHEM 121 or CHEM 125
²CHEM 121 or CHEM 125 is a prerequisite for General Biology

NOTE: It is imperative that students begin general chemistry as early in their program as possible.

Courses listed below apply to WWU GUR as well as some pre-requisites for pharmacy schools and preparation for the PCAT.

ACOM: ENG 101

BCOM: COMM 224; ENG 202

QSR: MATH 124, 240; PHIL 102

HUM: PHIL 112

SSC: ECON 206; PSY 101

LSCI: BIOL 204, 205, 206; CHEM 121, 122, 123 [or Honors: CHEM 125, 126, 225]

DECLARING A MAJOR: Always check with the department of your intended major for clarification about how to declare. Many programs (such as Behavioral Neuroscience, Biology, Chemistry, Kinesiology, and others) do not allow students to declare a major until certain prerequisites have been met, such as having taken specific courses or maintaining a specific GPA. Many departments allow you to sign up as a “pre-major” which will keep you updated on major requirements as well as events happening within the department.

ACCESS TO CLASSES: Due to high student demand for many upper-division courses, especially in the sciences, many departments give enrollment priority to students who are declared in the major over those seeking enrollment for elective credit or as a prerequisite for professional school. Registration details for heavily impacted courses and programs change frequently and are posted at department websites.

REPEATING COURSES: In general, this is not viewed favorably by professional schools but an isolated case may be acceptable. It will likely also require an explanation on your application, so discuss your options first with a Pre-healthcare Advisor. Both dropping and repeating courses can have impact on eligibility for financial aid, scholarships, and athletic participation. Speak to an advisor in each area that applies to you when making your decision.

Additional Resources

To join the advisors’ Pre-pharmacy Listserv: e-mail Renee.Murray@wwu.edu with SUBJECT: pre-pharmacy listserv, Last name, First name, student number, and major and concentration (if declared).

WWU Pre-Health Pinterest: www.pinterest.com/wwuprehealth/

Student Clubs: Join health-related clubs through the WWU Associated Students (AS), http://as.wwu.edu/clubs/.

American Association of Colleges of Pharmacy (AACP) www.aacp.org

Washington State Pharmacy Schools:
• Washington State University www.pharmacy.wsu.edu/
• University of Washington http://sop.washington.edu

Pharmacy College Application Service (PharmCAS) www.pharmcas.org

Pharmacy College Admission Test (PCAT) www.pcatweb.info

Explore Health Careers: www.explorehealthcareers.org

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