What is the study of Pre-Medicine?

At any given time Western has an estimated 450 students on a pre-medicine track. Pre-Med students are those who identify themselves as such, formally or informally. Western does not offer a "Pre-Med" major, and there is no formula for getting into medical school. Applicants are evaluated in multiple areas by medical school selection committees. All are important: MCAT, grade point average (both cumulative and science), letters of recommendation, extracurricular activities, and interview, as well as legal and social records.

Pre-Med Education

Medical 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 Pre-Med 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. Popular majors for Pre-Med students are Biology and Chemistry, but students have majored in a diverse range of academic disciplines including Anthropology, Behavioral Neuroscience, Communications, Psychology, History, Philosophy, Languages (i.e. Spanish), and Fairhaven self-designed programs. Some pursue combined majors such as Anthropology/Biology, Biochemistry, and Cellular & Molecular Biology.

Program Checkpoints:

Freshman year:
- Take Math Placement Test; begin appropriate math sequence to complete Calculus: MATH 124, 125.
- Begin General Chemistry series as soon as possible: CHEM 121, 122, 123.
- Begin General Biology series winter or spring quarter: BIOL 204, 205, 206.
- Work on GUR courses, including ENG 101 and PSY 101.
- 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 Physics sequence fall quarter: PHYS 114, 115, 116 or 161, 162, 163 (depending upon major).
- Take stats class: MATH 240 (or equivalent in major, if offered).
- Take a second English Composition course: ENG 201 or 202.
- Declare or apply for major.

Junior year:
- Research medical schools and graduate programs.
- Shadow MD and/or DO professionals, if not started previously.
- Begin Biochemistry: CHEM 471, 472.
- Prepare for the Medical College Admission Test (MCAT) to be taken the summer after junior year.
- Take a third English composition course as needed: Select from ENG 201, 202, 301 or 302.
- Begin primary application to the American Medical College Application Service (AMCAS) or the American Association of Colleges of Osteopathic Medicine Application Service (AACOMAS).
- Draft personal statement.
- Request letters of recommendation from professors and professionals.

Senior year:
- Prepare for possible medical school interview with a mock interview (or do spring of junior year).
- Complete major, GUR, WP, and other graduation requirements.

Additionally:

NOTE: Advanced Placement may not be recognized by all professional schools as college-earned credit. Check with each school.

It is expected that students gain at least 40 hours experience shadowing an MD physician (or a DO physician for osteopathic medical school).

MCAT—The Medical College Admission Test is offered several times per year (January through September). Applicants must take the exam no later than August of the year preceding anticipated admission. MCAT information is available at www.aamc.org/students/applying/mcat.
Core Courses

Academic course requirements for medical schools may vary but, regardless of your major, certain prerequisites are expected by most schools and include:

- One year General Chemistry with labs: CHEM 121¹, 122, 123 (5 credits, 5, 4)
- One year General Biology with labs: BIOL 204², 205, 206 (4, 5, 5), and additional courses under advisement
- One year Organic Chemistry with labs: CHEM 351, 352, 353 (4, 4, 3); labs: 354 and 355/[or 356 for non-Chemistry majors] (3, 3/[2])
- At least two quarters of Biochemistry: CHEM 471, 472 (4, 4)
- One year Physics with labs: PHYS 114³, 115, 116 (5, 5, 5) or PHYS 161³, 162, 163 (5, 5, 5)
- Two quarters Calculus: MATH 124, 125 (5, 5)
- Statistics: MATH 240 (4) or major equivalent
- One or more intro Social Science GUR course: i.e. PSY 101
- One year of English is highly recommended and required by some schools: select from ENG 101, 201, 202, 301⁴, 302⁴ (5, 5, 5, 5, 5)

¹Completion of MATH 114 or Math Placement into MATH 115 or higher is a prerequisite for CHEM 121
²CHEM 121 is prerequisite to BIOL 204
³MATH 115 is a prerequisite for PHYS 114; MATH 124 is a co-requisite for PHYS 161
⁴The UW School of Medicine does not accept these or other “how to” courses

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

The courses listed below apply to WWU GUR and may also apply to some pre-med requirements of medical and osteopathic schools.

**ACOM:** ENG 101

**BCOM:** ENG 202

**SSC:** PSY 101

**QSR:** MATH 124, 240

**LSCI:** BIOL 204, 205, 206

CHEM 121, 122, 123

PHYS 115, 116, 161, 162, 163

**SCI:** PHYS 114

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**DECLARING A MAJOR**: refer to the department of your chosen major for prerequisites and GPA requirements for declaring.

*NOTE: To major in Biology requires a grade point average of 2.9 or better for CHEM 121, 122, 123, and BIOL 204, 205, and 206 in order to advance to Phase II of the Biology major.

Admission to Phase II is required in order to take upper division Biology classes.

To major in Biochemistry requires a 3.0 grade average in CHEM 121, 122, 123, 351, 352 and BIOL 205 in order to move on to a Phase II Biochemistry major.

To major in Chemistry (BS) requires a grade point average of 3.0 in CHEM 121, 122, 123, 351, 352 and Math 124 and 125 in order to move on to a Phase II Chemistry major.

**ACCESS TO CLASSES:** Due to high student demand for many upper-division courses, especially in the sciences, many departments must give enrollment priority to students for whom these courses are required for their major over those who want to take them for electives. Registration details for these and other heavily impacted programs are posted at department website:

- **Biology**: [https://cse.wwu.edu/biology/registration](https://cse.wwu.edu/biology/registration)
- **Chemistry**: [https://cse.wwu.edu/chemistry/registration](https://cse.wwu.edu/chemistry/registration)

**REPEATING COURSES:** is not viewed favorably by professional schools. An isolated case may be acceptable but may also require an explanation in application. Discuss your options first with a Pre-Healthcare Advisor.

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**Additional Resources**

Join the advisors’ Pre-med Listserv by sending an e-mail to Renee.Murray@wwu.edu with this information: Subject: pre-med listserv, Last name, First name, student number, and major and concentration (if declared).

**Pre-Med Club**: Join this and other WWU Associated Students clubs at [http://as.wwu.edu/clubs/](http://as.wwu.edu/clubs/)

**WWU Allied Health Advising**: [www.wwu.edu/alliedhealth](http://www.wwu.edu/alliedhealth)

**WWU Pre-health Pinterest**: [www.pinterest.com/wwuprehealth/](http://www.pinterest.com/wwuprehealth/)

**American Medical College Application Service (AMCAS)**: [www.aamc.org](http://www.aamc.org)

**American Association of Colleges of Osteopathic Medicine (AACOM)**: [www.aacom.org](http://www.aacom.org)

**University of Washington School of Medicine Admissions**: [www.uwmedicine.org/education/md-program/admissions](http://www.uwmedicine.org/education/md-program/admissions)

**American Podiatric Medical Association**: [www.apma.org](http://www.apma.org)

**Explore Health Careers**: [www.explorehealthcareers.org](http://www.explorehealthcareers.org)

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This document has been created for advising purposes only. Please contact Advising for Pre-Healthcare Professions for updates and changes.