

Premedical and Pre-Health Studies Certificate

A post-baccalaureate certificate that provides a broad-based premedical/pre-health background and prepares students to pursue advanced degrees in medicine as well as other healthcare-related fields. Integrates comprehensive, regularly scheduled premedical advising with courses that cover fundamental concepts in the biological, physical, and social sciences required for admission to medical school or other health professional schools, and/or in preparation for the Medical College Admission Test (MCAT) or other healthcare professional school admission tests.

Students interested in this certificate should contact the Mallory-Wilson Center; 106 Pearson Hall; 513-529-3737; mallorywilsoncenter@miamioh.edu).

Admission requirements:

Applicants are evaluated based on their previous academic record (3.2 GPA minimum), standardized test scores (SAT, ACT, or GRE), motivation, experience in medicine, and personal qualities.

Two letters of recommendation are required: one should be from a faculty member, and a second from another faculty member, a supervisor, or a healthcare professional.

Certificate requirements:

Completion of 24 credit hours of certificate courses at Miami, with a 3.2 GPA.

Prior Coursework:

If a student has already completed a required course, they do not have to take the course again. Also, if a student has already completed several required courses prior to entering the program such that they have fewer than 24 credit hours of required courses remaining, they may take elective courses to satisfy the required minimum of 24 credit hours.

Students may elect to repeat a course taken prior to entering the program for a variety of reasons. It may be that the student is not satisfied with their grade, or the course was taken several years ago. Those students considering this option should discuss this with their pre-health professions advisor.

Growth year assistance:

During the growth year (the year after finishing the certificate program in which one applies to and interviews for medical school), the Mallory-Wilson Center will continue to provide advising opportunities, including application review and mock interviewing.

Program Requirements

Required courses: 24 hours of the non-elective courses

| Code | Title | Credit Hours |
|---|---|--------------|
| Biology | | |
| BIO 116 | Biological Concepts: Structure, Function, Cellular, and Molecular Biology | 4 |
| BIO 201 | Human Anatomy | 4 |
| BIO 203 | Introduction to Cell Biology | 3 |
| BIO 305 | Human Physiology | 4 |
| Chemistry | | |
| General Chemistry: | | 10 |
| CHM 141 & CHM 144 | College Chemistry and College Chemistry Laboratory | |
| CHM 142 & CHM 145 | College Chemistry and College Chemistry Laboratory | |
| Organic Chemistry: | | 10 |
| CHM 241 & CHM 244 | Organic Chemistry and Organic Chemistry Laboratory | |
| CHM 242 & CHM 245 | Organic Chemistry and Organic Chemistry Laboratory | |
| Biochemistry: | | 4 |
| CHM 432 or CHM 332 | Fundamentals of Biochemistry ¹ / Outlines of Biochemistry | |
| Physics 8-10 | | |
| PHY 161 or PHY 181 & PHY 183 | Physics for the Life Sciences with Laboratory I / General Physics I and General Physics Laboratory I | |
| PHY 162 or PHY 182 & PHY 184 | Physics for the Life Sciences with Laboratory II / General Physics II and General Physics Laboratory II | |
| Statistics | | |
| Select one of the following: | | 3-4 |
| STA 261 | Statistics | |
| STA 301 | Applied Statistics | |
| Professional Development | | |
| PMD 301 | Navigating Healthcare Professional School Admissions | 1 |

¹ CHM 432 is the preferred course for Biochemistry

Elective courses: as needed (see Prior Coursework)

| Code | Title | Credit Hours |
|----------------------------|-------------------------|--------------|
| Biological Sciences | | |
| BIO 342 | Genetics | 3 |
| BIO 361 | Patterns in Development | 4 |
| BIO 449 | Biology Of Cancer | 3 |

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|------------------------|---|--------|
| BIO 454 | Endocrinology | 3 |
| BIO 457 | Neuroanatomy | 3 |
| BIO 469 | Neurophysiology | 3 |
| MBI 201 | General Microbiology | 4 |
| MBI 361 | Fundamentals of Epidemiology | 3 |
| MBI 365 | Molecular and Cell Biology | 3 |
| MBI 405 | Medical Bacteriology | 4 |
| MBI 415 or MBI 414 | Immunology Principles and Practice Immunology Principles | 4 or 3 |
| MBI 464 | Human Viruses | 3 |
| Social Sciences | | |
| PSY 111 & PSY 112 | Introduction to Psychology and Foundational Experiences in Psychology | 4 |
| SOC 153 | Sociology in a Global Context | 3 |

In consultation with the advisor, students will develop the best program of study for their needs. Students may also take additional elective coursework with the advisor's approval.

Opportunities for shadowing, volunteering, and research can be explored with the Mallory-Wilson Center and program faculty.