# PRE-MEDICINE

| Undergraduate Credit Required   | Bachelor's degree   |
|---------------------------------|---|
| Entrance Exam                   | MCAT  |
| Professional Schooling Required | 4 yrs medical school; 3-8 yrs residency   |
|                                 | Doctor of Medicine (MD) or Doctor of Osteopathy (DO) degrees                    |
| Local Professional Schools      | Penn State, PCOM, LECOM, Drexel, Temple, University of Pennsylvania,            |
|                                 | Thomas Jefferson University, Cooper Medical School of Rowan University, etc     |
| Professional Organization       | aamc.org (Association of American Medical Colleges)                             |
| Websites                        | aacomas.org (Osteopathic Medicine)  |
| Major                           | Students can major in any subject at WCU for Pre-Medicine. The most common      |
|                                 | majors that align with medical school pre-requisites are Biology: Cell and      |
|                                 | Molecular Biology, Biology: Integrative Concentration, and Chemistry: Chem-Bio. |

#### REQUIRED AND SUGGESTED ELECTIVES FOR WCU UNDERGRADUATE STUDENTS

The following course recommendations are general requirements for MD/DO programs. For the specific requirements of your school of choice and whether AP/IB credit is accepted, please refer to that school's admissions website or contact those schools for a list of entrance requirements.

| <b>Biological Sciences</b>   | Biological Sciences with labs (8 credit hours) |                |  |  |  |
|--|--|----------------|--|--|--|
| BIO 110 General Biology, BIO 111 General                                       |  |                |  |  |  |
| Biology II, BIO 211 Cell Biology, BIO 215 Botany,                              |  |                |  |  |  |
| BIO 217 Zoology Bio 214 Microbiology   |  |                |  |  |  |
| Course   | Term   | Grade          |  |  |  |
|  |  |                |  |  |  |
|  |  |                |  |  |  |
|  |  |                |  |  |  |
| Genetics (required b   |  |                |  |  |  |
| Course<br>BIO 210  | Term   | Grade          |  |  |  |
| General Chemistry v  | vith loh                                       |                |  |  |  |
| Course   | Term   | Grade          |  |  |  |
| CHE 103 & CRL 103  | Term   | Grade          |  |  |  |
| CHE 104 & CRL 104  |  |                |  |  |  |
| Organic Chemistry  | with lab                                       |                |  |  |  |
| (CRL 232 recommended, not required)  |  |                |  |  |  |
| Course   | Term   | Grade          |  |  |  |
| CHE 231 & CRL 231  |  |                |  |  |  |
| CHE 232  |  |                |  |  |  |
|  |  |                |  |  |  |
| Biochemistry (1 cou  |  |                |  |  |  |
| Course   | rse)<br>Term                                   | Grade          |  |  |  |
| Course<br>CHE 476 (required)   |  | Grade          |  |  |  |
| Course CHE 476 (required) CHE 477  |  | Grade          |  |  |  |
| Course CHE 476 (required) CHE 477 (recommended)                                | Term   | Grade          |  |  |  |
| Course CHE 476 (required) CHE 477 (recommended) Physics with lab (2 of         | Term   |                |  |  |  |
| Course CHE 476 (required) CHE 477 (recommended) Physics with lab (2 of Course) | Term   | Grade<br>Grade |  |  |  |
| Course CHE 476 (required) CHE 477 (recommended) Physics with lab (2 of         | Term   |                |  |  |  |

| English Composition (3 to 6 hrs)                   |      |       |  |  |
|--|------|-------|--|--|
| Course   | Term | Grade |  |  |
| WRT 120  |      |       |  |  |
| WRT 2XX  |      |       |  |  |
| Calculus and Statistics (please contact school for |      |       |  |  |
| specific admissions requirement)                   |      |       |  |  |
| Course   | Term | Grade |  |  |
| MAT 121  |      |       |  |  |
| MAT 145  |      |       |  |  |
| PSY 100 or SOC 100 (recommended)                   |      |       |  |  |
| Course   | Term | Grade |  |  |
|  |      |       |  |  |

# SUGGESTED ELECTIVES

BIO 259. A&P 1 AND BIO 269. A&P 2

**BIO 357. Comparative Vertebrate Anatomy** 

**BIO 422. Cancer Biology** 

**BIO 428. Animal Histology** 

**BIO 440. Human Genetics** 

**BIO 448. Animal Development** 

**BIO 465. Immunology** 

**BIO 468. Comparative Vertebrate Physiology** 

**BIO 469. Human Physiology\*** 

**BIO 484. Epidemiology** 

CHE 477. Biochemistry 2

**CSD 101. Intro to Communicative Disorders** 

HEA 109. Health Issues of Women

**HEA 110. Transcultural Health** 

**HEA 370. Medical Terminology** 

NTD 303. Introductory Principles Human Nutrition

**PHI 371. Medical Ethics** 

<sup>\*</sup> Does not count as a Biology major elective.

| Sample Course Plan of Pr<br>Semester 1<br>CHE 103<br>CRL 103<br>BIO 110<br>WRT 120                    | re-Medical Requirements Semester 2 CHE 104 CRL 104 BIO 111 WRT 2XX                 |  |
|---|--|--|
| MAT 121  1 Semester 3 CHE 231 CRL 231 PHY 130 BIO 210 General/Major Electives                         | MAT 145  Semester 4 CHE 232 PHY 140 BIO 211 PSY 100/SOC100 General/Major Electives |  |
| Semester 5 BIO 217 CHE 476 General/Major Electives  | Semester 6<br>CHE 477<br>General/Major Electives                                   |  |
| *** TAKE MCAT & APPLY TO MEDICAL SCHOOL ONE YEAR BEFORE YOU PLAN TO MATRICULATE to MEDICAL SCHOOL *** |  |  |
| Semester 7<br>General/Major Electives   | Semester 8<br>General/Major Electives  |  |

| Courses Covering MCAT 2015 content                  |                 |  |
|---|-----------------|--|
| BIO 110   | CHE 103 and 104 |  |
| BIO 111   | CHE 231 and 232 |  |
| BIO 210   | CHE 476         |  |
| BIO 211   | CHE 477         |  |
| BIO 210   | PHY 130 and 140 |  |
| BIO 211   | PSY 100         |  |
| BIO 214   | SOC 100         |  |
| BIO 215   |                 |  |
| BIO 217   |                 |  |
| BIO 259 and 269                                     |                 |  |
| BIO 440   |                 |  |
| BIO 468   |                 |  |
| BIO 469   |                 |  |
| Statistical reasoning skills tested on the MCAT may |                 |  |

be obtained through science courses or through taking a statistical methods course (see front for options).

Meet with the Pre-Medical Director to develop your MCAT preparation plan.

#### **BEYOND ACADEMICS**

Pre-Medical students are encouraged to participate in experiences such as leadership roles, volunteer work, research, and shadowing, which will help prepare them for medical school and the medical profession. Such experiences demonstrate a commitment to and knowledge of the profession. All students are STRONGLY encouraged to shadow medical professionals, volunteer with health providers, get involved with research and pursue internships. Additionally, involvement with clubs such as Pre-Med Club and Minorities in Medicine, will help students to learn more about the medical profession

## APPLICATION AND ADMISSION

There are two centralized application services. Application for admission to most medical schools are made through AMCAS (allopathic) or AACOMAS (osteopathic). This standardized application service is available online at aamc.org/students/applying/amcas (allopathic) or aacomas.aacom.org/ (osteopathic). Schools will then contact you to verify receipt of your application and inform you of any secondary applications and/or additional materials they require.

#### **ENTRANCE EXAM**

The Medical College Admissions Test (MCAT) is required. The Official Guide to the MCAT can be found online at https://www.aamc.org/students/applying/mcat/mcat2015/. Students should obtain this publication as soon as possible and use it as a guide while preparing for the MCAT exam.

## **ADDITIONAL APPLICATION INFORMATION**

Applications to medical school require a personal statement and letters of recommendation/evaluation. The number of required letters varies by school. For the WCU Pre-Medical program, you will need to collect a minimum of 5 letters of recommendation (at least one from an MD or DO) and have them submitted to the premed office prior to requesting an interview from the pre-medical committee. You should get to know your professors so that they can write a thorough letter about your potential to be a successful medical student.

