PRE-MEDICINE/BIOLOGY OPTION

This option is offered within the following major(s):


The Pre-Medicine/Biology option is designed to meet the requirements for most medical schools (Track I) or physician assistant schools (Track II) in the U.S., but students should consult the requirements for specific schools before they apply because requirements can change. The option couples the comprehensive biological sciences background of the Biology major with intensive physiology laboratory experiences and important social science requirements. Dedicated health profession advisors work with Pre-Medicine/Biology option students to integrate essential professional experiences during their time at OSU.

Options in the Biology major require fifteen or fewer additional credits (one term) beyond the basic Biology major, and most students can complete the additional Pre-Medicine/Biology option course work in four years. Biology students may obtain a Pre-Medicine option by satisfying the Core and either Track I or Track II below with a 3.0 or higher cumulative GPA in major and option course work. Courses used to satisfy the Pre-Medicine option requirements also satisfy the Biology and Society, Physics/Computer Science and Quantitative Applications, Organismal Biology, Physiology, Writing Intensive Course and Upper-Division Science Electives requirements in the Biology major. Several courses may also be used to satisfy areas of the baccalaureate core.

Students may pursue either the Pre-Medicine, Pre-Dentistry, Pre-Veterinary Medicine or Physiology and Behavior options within the Biology major—no dual combinations of these options are permitted.

Students interested in private practice should also consider taking BA 215 FUNDAMENTALS OF ACCOUNTING, or BA 260 INTRODUCTION TO ENTREPRENEURSHIP.

It is recommended that Pre-Medicine/Biology option students take COMM 218 *INTERPERSONAL COMMUNICATION, to complete the Biology major baccalaureate core communications requirement.

It is recommended that Pre-Medicine/Biology option students take COMM 218, *Interpersonal Communication (3), to complete the Biology major baccalaureate core communications requirement.

The option sections and courses within them are arranged in the order they are generally completed.

For further information, see MyDegrees or the Integrative Biology website at http://ib.oregonstate.edu.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH 201</td>
<td>*GENERAL PHYSICS</td>
<td>5</td>
</tr>
<tr>
<td>PH 202</td>
<td>*GENERAL PHYSICS</td>
<td>5</td>
</tr>
<tr>
<td>PH 203</td>
<td>*GENERAL PHYSICS</td>
<td>5</td>
</tr>
<tr>
<td>PHL 205</td>
<td>*ETHICS</td>
<td>4</td>
</tr>
<tr>
<td>or PHL 444/REL 444</td>
<td>*BIOMEDICAL ETHICS</td>
<td></td>
</tr>
</tbody>
</table>

Writing Intensive Course (WIC)

Select one of the following: 3-4

- BI 317/BB 317 *SCIENTIFIC THEORY AND PRACTICE
- BI 319/Z 319 *CRITICAL THINKING AND COMMUNICATION IN THE LIFE SCIENCES
- MB 385 *EMERGING INFECTIOUS DISEASES AND EPIDEMICS
- HSTS 417 **HISTORY OF MEDICINE

Medicine, Health and Society

Select one of the following: 3-4

- ANTH 352 *ANTHROPOLOGY, HEALTH, AND ENVIRONMENT
- ANTH 383 *INTRODUCTION TO MEDICAL ANTHROPOLOGY
- ANTH 474 CROSS-CULTURAL HEALTH AND HEALING
- BB 332 *MOLECULAR MEDICINE
- BI 420 *VIRUSES IN MODERN SOCIETY
- H 210 *INTRODUCTION TO THE HEALTH CARE SYSTEM
- H 225 *SOCIAL AND INDIVIDUAL HEALTH DETERMINANTS
- H 312 *HIV/AIDS AND STIS IN MODERN SOCIETY
- H 320 INTRODUCTION TO HUMAN DISEASE
- H 333 *GLOBAL PUBLIC HEALTH
- HSTS 416 *HISTORY OF MEDICINE PRE-1800
- MB 330 *DISEASE AND SOCIETY
- SOC 350 HEALTH, ILLNESS AND SOCIETY

Tracks

Select one of the following: 17-26

- Track I Pre-Medicine
- Track II Pre-Physician Assistant

Total Hours 51-62

* Baccalaureate Core Course (BCC)
^ Writing Intensive Course (WIC)

**Track I Pre-Medicine**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI 109</td>
<td>HEALTH PROFESSIONS: MEDICAL</td>
<td>1</td>
</tr>
<tr>
<td>Z 431</td>
<td>VERTEBRATE PHYSIOLOGY I</td>
<td>4</td>
</tr>
<tr>
<td>Z 432</td>
<td>VERTEBRATE PHYSIOLOGY II</td>
<td>5</td>
</tr>
<tr>
<td>&amp; Z 442</td>
<td>and VERTEBRATE PHYSIOLOGY LABORATORY</td>
<td></td>
</tr>
</tbody>
</table>

**Biological Science/Psychology Elective**

Select two of the following: 3-5

- BB 360 INTRODUCTION TO NEUROSCIENCE
- BB 460 ADVANCED CELL BIOLOGY
- BI 495 DISEASE ECOLOGY
- MB 416 IMMUNOLOGY
- MB 436 THE HUMAN MICROBIOME
- MB 480 GENERAL PARASITOLOGY
- PSY 381 ABNORMAL PSYCHOLOGY
- PSY 433 PSYCHOPHARMACOLOGY
- TOX 411 FUNDAMENTALS OF TOXICOLOGY
Pre-Medicine/Biology Option

Z 422  COMPARATIVE/FUNCTIONAL VERTEBRATE ANATOMY
Z 425  EMBRYOLOGY AND DEVELOPMENT
Z 437  VERTEBRATE ENDOCRINOLOGY
Z 438  BEHAVIORAL NEUROBIOLOGY

Upper-Division Elective
Select one of the following paths:

Pre-Medical Experiential Learning Credits
Complete any combination of 3 credits of the following:
BI 309  TEACHING PRACTICUM (by approval)
BI 401  RESEARCH AND SCHOLARSHIP (by approval)
BI 409  ADVANCED TEACHING PRACTICUM (by approval)

Pre-Medical Science Elective Course
Select 3 credits

Total Hours 16-18

Pre-Physician Experiential Learning Credits
Complete any combination of 3 credits of the following:
BI 309  TEACHING PRACTICUM (by approval)
BI 401  RESEARCH AND SCHOLARSHIP (by approval)
BI 409  ADVANCED TEACHING PRACTICUM (by approval)

Pre-Physician Assistant Science Elective Course
Select 3 credits

Total Hours 24

One 3+ credit, 300-400 level course from the College of Science (BB, BHS, BI, BOT, CH, MB, MTH, PH, ST, and Z) may be used to meet this requirement with the exception of the courses listed below as excluded. Other science courses outside of COS and courses or internships taken internationally may be used by Biology chief advisor approval. Courses from other majors, minors or baccalaureate core requirements not used to meet requirements above may also be used.

EXCLUDED COURSES: 401–410 credits (except as outlined above or by approval), BB 350 ELEMENTARY BIOCHEMISTRY, BB 490 BIOCHEMISTRY 1: STRUCTURE AND FUNCTION—BB 492 BIOCHEMISTRY 3: GENETIC BIOCHEMISTRY, BI 331 ADVANCED HUMAN ANATOMY AND PHYSIOLOGY—BI 333 ADVANCED HUMAN ANATOMY AND PHYSIOLOGY, BI 341 ADVANCED HUMAN ANATOMY AND PHYSIOLOGY LABORATORY—BI 343 ADVANCED HUMAN ANATOMY AND PHYSIOLOGY LABORATORY, CH 334 ORGANIC CHEMISTRY, CH 335 ORGANIC CHEMISTRY, CH 336 ORGANIC CHEMISTRY, ST 314 INTRODUCTION TO STATISTICS FOR ENGINEERS, Z 361 INVERTEBRATE BIOLOGY/Z 362 INVERTEBRATE BIOLOGY LABORATORY, Z 461 MARINE AND ESTUARINE INVERTEBRATE ZOOLOGY and any 399 or 499 courses not specifically approved.

Option Code: 714

Track II Pre-Physician Assistant

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHAR 210</td>
<td>TERMINOLOGY OF THE HEALTH SCIENCES</td>
<td>2</td>
</tr>
<tr>
<td>PSY 350</td>
<td>HUMAN LIFESPAN DEVELOPMENT</td>
<td>4</td>
</tr>
<tr>
<td>or PSY 381</td>
<td>ABNORMAL PSYCHOLOGY</td>
<td></td>
</tr>
<tr>
<td>BI 331 &amp; BI 332</td>
<td>ADVANCED HUMAN ANATOMY AND PHYSIOLOGY</td>
<td>9</td>
</tr>
<tr>
<td>BI 333 &amp; BI 341</td>
<td>ADVANCED HUMAN ANATOMY AND PHYSIOLOGY</td>
<td>6</td>
</tr>
<tr>
<td>BI 342 &amp; BI 343</td>
<td>ADVANCED HUMAN ANATOMY AND PHYSIOLOGY</td>
<td></td>
</tr>
</tbody>
</table>

Upper-Division Elective