Oregon State University College of Science Graduation Checklist
B.S. in BioHealth Sciences, Pre-Pharmacy Option 2016-17

The following pre-pharmacy curriculum satisfies the prerequisite requirements of most accredited pharmacy schools in the United States. Because the prerequisite courses required for admission to the schools and colleges of pharmacy vary, students are ultimately responsible for completion of requirements to their choice of schools. Satisfactory completion of the courses recommended below does not guarantee admission to pharmacy school since applicants are accepted on a competitive basis. Refer to individual pharmacy schools for minimum accepted grades, minimum GPAs, and repeat course policies. Completing the prerequisite courses for pharmacy school usually requires 3-4 years of undergraduate study. Finishing a bachelor's degree, which usually takes four years, may make you more competitive for admission. Some pharmacy schools require a bachelor's degree. Pharmacy programs award the Doctor of Pharmacy (Pharm.D.) degree and generally consist of four years of professional study.

**BACCALAUREATE CORE REQUIREMENTS:**

**Skills Courses (15 credits + WIC):**
- Writing 121 (3)\(^1\)
- Writing II (3)\(^1\)
- Communication (3)\(^1\)
- Mathematics (3)\(^1\)
- Lifetime Fitness (2)
- Lifetime Fitness Lab/PAC (1)
- Writing Intensive Course (3)\(^\) Fulfilled below

*Synthesis Courses (6 credits):*
*The two courses used to fulfill the Synthesis requirements may not be in the same department.*

- Contemporary Global Issues (3) Fulfilled below
- Sci. Tech. & Soc. (3) Fulfilled below

**Perspectives Courses (27 credits):**
No more than two courses from any one department may be used by a student to satisfy the Perspectives category:
- Physical Science (w/ lab) (4) Fulfilled below
- Biological Science (w/ lab) (4) Fulfilled below
- 2nd Phys./Biol. Sci. (w/lab) (4) Fulfilled below
- Western Culture (3) Fulfilled below
- Cultural Diversity (3) Fulfilled below
- Literature and the Arts (3) Fulfilled below
- Social Processes & Institutions (3) ECON 201/202
- Difference, Power, & Discrimination. (3) Fulfilled below

**OSU Requirements for a Bachelor’s Degree:**
- 180 Total Credits
- 60 Upper Division Credits (300 & 400-level courses)
- Residency (45 of last 75 credits taken at OSU)

**MAJOR REQUIREMENTS:** All required courses must be taken on an A-F graded basis (no S/U).

- CH 231/261 General Chemistry (5)
- CH 232/262 General Chemistry (5)
- CH 233/263 General Chemistry (5)
- BI 211 Principles of Biology (4)
- BI 212 Principles of Biology (4)
- BI 213 Principles of Biology (4)
- PH 201 General Physics (5)
- PH 202 General Physics (5)
- PH 203 General Physics (5)
- MTH 112 Elementary Functions (4)
- MTH 241 or 251 Calculus (4) *MTH 251 is preferred*
- ST 201 Principles of Statistics (4)
- CH 331 Organic Chemistry (4)
- CH 332 Organic Chemistry (4)
- CH 337 Organic Chemistry Lab (4)
- BI 331/341 Advanced Human Anatomy & Physiology (5)
- BI 332/342 Advanced Human Anatomy & Physiology (5)
- BI 333/343 Advanced Human Anatomy & Physiology (5)

- BHS 323 Phys./Biol. Sci. (w/lab) (4)
- MB 302 General Microbiology (3)
- MB 303 General Microbiology Lab (2)
- BI 314 Cell and Molecular Biology (4)
- MB 385 Emerging Infectious Diseases & Epidemics (3)
- CH 324 Quantitative Analysis (4)\(^3\) For CH minor
- BI/MB 385 Emerging Infectious Diseases & Epidemics (3)
- BI 311 Genetics (4)
- BB 450, 451 General Biochemistry (4, 3)\(^2\)
- BB 332 Molecular Medicine (3)
- BI 311 Genetics (4)
- MTH 327/427 Medical Statistics (4)
- BB 450, 451 General Biochemistry (4, 3)\(^2\)
- BI/MB 385 Emerging Infectious Diseases & Epidemics (3)
- CH 324 Quantitative Analysis (4)\(^3\) For CH minor
- MB 416 Immunology (3)
- MB 434 Virology (3)
- MB 480 Parasitology (3)
- MB 499 Mechanisms of Disease (3)
- PHL 444 Biomedical Ethics (4)
- PLY 330 Brain and Behavior (4)
- PSY 433 Psychopharmacology (4)
- PLY 330 Brain and Behavior (4)
- PSY 360 The World of Poisons (3)
- TOX 411 Fundamentals of Toxicology (3)
- TOX 411 Fundamentals of Toxicology (3)

\(^1\)WIC courses: WR 121, WR 122

\(^2\)Grades of C- or higher are required for BB 450, 451.

\(^3\)Grades of B- or higher are required for CH 324.
Additional Prerequisites for OSU’s PharmD Program:

- BB 450 General Biochemistry (4)
- BB 451 General Biochemistry (3)
- One course in the social or behavioral sciences (only required for students who will not complete a B.S. degree before entry into Pharm. D.)
- One course in Economics: ECON 201 Microeconomics (4), ECON 202 Macroeconomics (4), or AREC 250 Intro to Environmental Econ. & Policy (3)

Additional Prerequisites for Other PharmD Programs:

PACIFIC UNIVERSITY: Oregon’s other pharmacy school, Pacific University, has slightly different prerequisite requirements. Students planning to apply to Pacific may need to take additional English, Speech, Psychology, Social/Behavioral Sciences, and/or Humanities/Fine Arts. See www.pacificu.edu/pharmd for more details.

OTHER PHARMACY SCHOOLS: Each of the 130+ pharmacy schools in the U.S. has its own prerequisites. Many schools also require applicants to take the Pharmacy College Admission Test (PCAT). Students must check with any school to which they wish to apply for up-to-date information.

Resources for Pre-Pharmacy Students:
- Pre-Pharmacy Advising – call 541-737-3875 or visit 225 Nash Hall to schedule an appointment
- College of Science, Preparing for Health Professions http://www.science.oregonstate.edu/Premed
- American Association of Colleges of Pharmacy, Student Center http://www.aacp.org/pharmacycareers
- PharmCAS Directory of Pharm. D. Programs http://www.pharmcas.org/school-directory

Sample: 4-year program for BioHealth Sciences Major, Pre-Pharmacy Option¹

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1. WR 121, COMM, and MTH must be completed satisfactorily (C-) within their first 45 hours of OSU work. WR II must be completed satisfactorily within the first 90 hours. Transfer students must complete WR II and COMM within their first 45 hours at OSU.
2. The Biochemistry series is a prerequisite for OSU’s PharmD program.
3. A minor in Chemistry is possible with one additional non-organic chemistry class such as CH 324, Quantitative Analysis (4cr.) or CH 390, Environmental Chemistry (3cr.).
4. Instead of BioHealth Sciences, a departmental major may be completed in any department in the College of Science. Excellent choices for pre-pharmacy students include Biology, Chemistry, and Microbiology. Additional upper division science courses are required for these majors.