

Oregon State University College of Science Graduation Checklist

B.S. in BioHealth Sciences, Pre-Pharmacy Option 2017-18

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 of their chosen school. 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. 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):

- | | |
|--|------------------------|
| <input type="checkbox"/> Writing 121 (3) ¹ | <u>WR 121</u> |
| <input type="checkbox"/> Writing II (3) ¹ | _____ |
| <input type="checkbox"/> Communication (3) ¹ | _____ |
| <input checked="" type="checkbox"/> Mathematics (3) ¹ | <u>Fulfilled below</u> |
| <input type="checkbox"/> Lifetime Fitness (2) | <u>HHS 231</u> |
| <input type="checkbox"/> Lifetime Fitness Lab/PAC (1) | _____ |
| <input checked="" type="checkbox"/> Writing Intensive Course (3) | <u>Fulfilled below</u> |

Synthesis Courses (6 credits):

The two courses used to fulfill the Synthesis requirements may **not** be in the same department.

- | | |
|---|-------|
| <input type="checkbox"/> Contemporary Global Issues (3) | _____ |
| <input type="checkbox"/> Sci. Tech. & Soc. (3) | _____ |

Perspectives Courses (27 credits):

No more than two courses from any one department may be used by a student to satisfy the Perspectives category:

- | | |
|--|------------------------|
| <input checked="" type="checkbox"/> Physical Science (w/ lab) (4) | <u>Fulfilled below</u> |
| <input checked="" type="checkbox"/> Biological Science (w/ lab) (4) | <u>Fulfilled below</u> |
| <input checked="" type="checkbox"/> 2 nd Phys./Biol. Sci. (w/lab) (4) | <u>Fulfilled below</u> |
| <input type="checkbox"/> Western Culture (3) | _____ |
| <input type="checkbox"/> Cultural Diversity (3) | _____ |
| <input type="checkbox"/> Literature and the Arts (3) | _____ |
| <input type="checkbox"/> Social Processes & Institutions (3) | <u>ECON 201/ 202</u> |
| <input type="checkbox"/> Difference, Power, & Discrimination. (3) | _____ |

OSU Requirements for a Bachelor's Degree:

- | |
|--|
| <input type="checkbox"/> 180 Total Credits |
| <input type="checkbox"/> 60 Upper Division Credits (300 & 400-level courses) |
| <input type="checkbox"/> 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).

- | | |
|--|---|
| <input type="checkbox"/> CH 231/261 General Chemistry (5) | <input type="checkbox"/> BB 314 Cell and Molecular Biology (4) |
| <input type="checkbox"/> CH 232/262 General Chemistry (5) | <input type="checkbox"/> MB 302 General Microbiology (3) |
| <input type="checkbox"/> CH 233/263 General Chemistry (5) | <input type="checkbox"/> MB 303 General Microbiology Lab (2) |
| <input type="checkbox"/> BI 211 Principles of Biology (4) | <input type="checkbox"/> BHS 323 (3) or MB 385 (3) or HSTS /417 (4) (counts as WIC) |
| <input type="checkbox"/> BI 212 Principles of Biology (4) | |
| <input type="checkbox"/> BI 213 Principles of Biology (4) | |
| <input type="checkbox"/> PH 201 General Physics (5) | <u>Suggested Upper Division Electives:</u> |
| <input type="checkbox"/> PH 202 General Physics (5) | <i>To reach 60 upper division credits required to receive bachelor's degree at OSU. Biochemistry is highly recommended.</i> |
| <input type="checkbox"/> PH 203 General Physics (5) | <input type="checkbox"/> BB 450, 451 General Biochemistry (4, 3) ² |
| <input type="checkbox"/> MTH 112 Elementary Functions (4) | <input type="checkbox"/> BB 332 Molecular Medicine (3) |
| <input type="checkbox"/> MTH 241 or 251 Calculus (4) <i>MTH 251 is preferred</i> | <input type="checkbox"/> BI 311 Genetics (4) |
| <input type="checkbox"/> ST 201 Principles of Statistics (4) | <input type="checkbox"/> BI/MB 385 Emerging Infectious Diseases & Epidemics (3) |
| <input type="checkbox"/> CH 331 Organic Chemistry (4) | <input type="checkbox"/> CH 324 Quantitative Analysis (4) ³ <i>For CH minor</i> |
| <input type="checkbox"/> CH 332 Organic Chemistry (4) | <input type="checkbox"/> MB 416 Immunology (3) |
| <input type="checkbox"/> CH 337 Organic Chemistry Lab (4) | <input type="checkbox"/> MB 434 Virology (3) |
| <input type="checkbox"/> BI 331/341 Advanced Human Anatomy & Physiology (5) | <input type="checkbox"/> MB 480 Parasitology (3) |
| <input type="checkbox"/> BI 332/342 Advanced Human Anatomy & Physiology (5) | <input type="checkbox"/> MB 499 Mechanisms of Disease (3) |
| <input type="checkbox"/> BI 333/343 Advanced Human Anatomy & Physiology (5) | <input type="checkbox"/> PHL 444 Biomedical Ethics (4) |
| | <input type="checkbox"/> PSY 330 Brain and Behavior (4) |
| | <input type="checkbox"/> PSY 433 Psychopharmacology (4) |
| | <input type="checkbox"/> TOX 360 The World of Poisons (3) |
| | <input type="checkbox"/> TOX 411 Fundamentals of Toxicology (3) |

Additional Prerequisites for OSU's PharmD Program:

<input type="checkbox"/> BB 450 General Biochemistry (4) <input type="checkbox"/> BB 451 General Biochemistry (3) <input type="checkbox"/> One course in the social or behavioral sciences (<i>only required for students who will not complete a B.S. degree before entry into Pharm. D.</i>)	<input type="checkbox"/> 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:

- 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/pharmacareers>
- PharmCAS Directory of Pharm. D. Programs <http://www.pharmcas.org/school-directory>

Sample: 4-year program for BioHealth Sciences Major, Pre-Pharmacy Option⁴

	Fall		Winter		Spring		
First Year	CH 231 & 261	5	CH 232 & 262	5	CH 233 & 263	5	
	MTH 111	4	MTH 112	4	MTH 251	4	
	WR 121	3	Communication	3	Bacc Core	3	
	BHS 199	1	Bacc Core	3	HHS 231	2	
	<u>ALS 199</u>	<u>2</u>			<u>PHAR 201</u>	<u>1</u>	
	15		15		15	(45)	
Second Year	BI 211	4	BI 212	4	BI 213	4	
	CH 331	4	CH 332	4	CH 337	4	
	ST 201	4	Writing II	3	ECON 201 or 202	4	
	Bacc Core	3	Bacc Core	3	Bacc Core	3	
		15	<u>HHS Lab/PAC</u>	<u>1</u>		15	(45)
Third Year	BI 331	3	BI 332	3	BI 333	3	
	BI 341	2	BI 342	2	BI 343	2	
	BB 314	4	MB 302	3	BHS 323 (WIC)	3	
	Synthesis	3	MB 303	2	UD Elective	3	
	<u>Electives</u>	<u>3</u>	<u>Electives</u>	<u>5</u>	<u>Electives</u>	<u>4</u>	
	15		15		15	(45)	
Fourth Year	PH 201	5	PH 202	5	PH 203	5	
	BB 450	4	BB 451	3	UD Elective	4	
	UD Elective	3	UD Elective	3	Electives	6	
	<u>Electives</u>	<u>3</u>	<u>Electives</u>	<u>4</u>		15	(45)
		15		15		15	(45)

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. A departmental major may be completed in any department in the College of Science besides BioHealth. Excellent choices for pre-pharmacy students include Biology, Chemistry, and Microbiology. Additional upper division science courses are required for these majors.