

### Doctor of Pharmacy Degree Program --- Prerequisite Courses for Applicants

Course Titles	Semester Credit Hours (minimum)	Quarter Credit Hours (minimum)	Binghamton University (BU) course number	BU Fall	BU Spring	BU Summer	Additional Notes (only semester hours are listed here)
English I	3 (4 at BU)	4	WRIT 111	X	X		• Must include oral and written communication
English II	3 (2 at BU)	4	Any ENG or science Seminar course; no ESL	X	X	Term I or II	
General Biology I with Lab	4	6	BIOL 118	X	X	Term I	<ul style="list-style-type: none"> <li>• Must be Biology courses required of majors</li> <li>• If General Biology is not available, you may take Cell Biology, Zoology, Genetics, Cell and Molecular Biology</li> <li>• AP Biology accepted, score 4-5 for Biol 1 &amp; score 5 for Biol II</li> <li>• At BU: A score of 5 on AP Biology = BIOL 118 &amp; 117; a score of 4 = BIOL 118 OR 117</li> </ul>
General Biology II with Lab	4	6	BIOL 117	X	X	Term II	
General Chemistry I with Lab	4	6	CHEM 107 or 111	CHEM 107 or 111	CHEM 111	CHEM 107 Term I	
General Chemistry II with Lab	4	6	CHEM 108 or 341	CHEM 341	CHEM 108	CHEM 108 Term I	<ul style="list-style-type: none"> <li>• Must be Chemistry courses required of majors</li> <li>• AP Chemistry accepted providing a lab has been completed, score 4-5</li> <li>• At BU: A score of 4 on AP Chemistry = CHEM 107; score of 5 = CHEM 107 &amp; 108.</li> </ul>
Organic Chemistry I	4	6	CHEM 231	X	X	X	• Must be Chemistry courses required of majors
Organic Chemistry II with Lab	4	6	CHEM 332 + CHEM 335 (LAB – 2 credit hours)	X X	X X	X X	
Biochemistry (preferred but optional)	4	6	BCHM/BIOL 403	X	X		
Microbiology	4	6	BIOL 314	X			• Lab (BU BIOL 326 - 2 credit hours) is optional
Separate courses: Anatomy/Physiology Or Anatomy & Physiology as single course	4	6	BIOL 251	X		Term I	<ul style="list-style-type: none"> <li>• If Anatomy is separate from Physiology, then 4 credit hours of Anatomy are required and 6 credit hours of Physiology</li> <li>• Anatomy &amp; Physiology course at a 2 year College must be supplemented with a Mammalian Physiology course at a 4 year institution</li> </ul>
	4	6	BIOL 347		X	Term II	
Physics with Lab	4	6	PHYS 121	X		Term I	<ul style="list-style-type: none"> <li>• Physics for science majors preferred.</li> <li>• AP Physics accepted</li> <li>• New Physics I exam: score 4-5; Physics C exam: score 4-5</li> <li>• Score of 5 on Physics C: Electricity and Magnetism = PHYS 132 (students must take PHYS 121 or 131)</li> <li>• Score of 5 on Physics C: Mechanics = PHYS 131 (students still have to take PHYS 122 or 132)</li> <li>• New Physics 1 score of 5 = PHYS 121</li> <li>• New Physics 2 score of 5 = PHYS 122.</li> <li>• Score less than 5 on Physics 1 but 5 on Physics 2 = must take Physics 121</li> </ul>
Physics with Lab (optional)	4	6	PHYS 122		X	Term II	
Calculus I	2 2	6	MATH 224 + 225	X X	X		<ul style="list-style-type: none"> <li>• AP Calculus AB and BC accepted, score 4-5 AB exam for CALC I and score 4-5 BC for CALC II</li> <li>• AT BU: Score of 5 on AB = MATH 224 &amp; 225; Score of 4-5 on BC calculus Chemistry = MATH 224 &amp; 225.</li> </ul>
Calculus II	2 2	6	MATH 226 + 227	X X	X X		
Statistics	4	6	MATH 147 or 148 or PSYC 243 (for majors only)	X	X	X	• AP statistics accepted, score 4-5
Economics	3 (4 at BU)	4	ECON 160	X	X	X	
Social or Behavioral Science	2	3					• sociology, psychology, geography, human development, etc.

## NOTES ABOUT THE PREREQUISITES

1. Prerequisites may be completed at Binghamton University, or another two- or four-year accredited college/university (see exceptions in the Prerequisite Table; foreign applicants must have their transcript evaluated by the School of Pharmacy and Pharmaceutical Sciences [SOPPS]).
2. Binghamton University SOPPS does not articulate courses or evaluate transcripts. To find equivalent courses, consult the course equivalency guide: <http://www.binghamton.edu/admissions/apply/transfer/coursework.html> or undergraduate course descriptions found in the Binghamton University Bulletin.
3. All prerequisites courses must be completed by the end of the summer term with a grade of C or better and prior to matriculation in August of that year. All courses must have been completed within seven years preceding matriculation into the pharmacy school. Preference will be given to candidates who have completed coursework within five years preceding admission.
4. **CHEM 107 & CHEM 108 OR CHEM 111 & CHEM 341.** If taking chemistry at Binghamton University you MUST choose one sequence. You may NOT switch between sequences. Also, CHEM 107 MUST be taken in the fall semester and CHEM 108 in the spring semester.
5. If Binghamton University students complete their undergraduate degree before entry into the SOPPS, they must follow the General Education and major requirements for their degree. In addition, they must complete all prerequisites (see Prerequisite Table) for entry into the pharmacy school, even if requirements for their undergraduate degree did not include some prerequisite courses.
6. It is important that all pharmacy students can communicate effectively in the English language, both spoken and written communications. The school's admission committee will consider communication a valuable skill for pursuing a career in pharmacy.
7. All students will be required to have their own laptop computer on entry into the pharmacy school. If you are not able to afford a computer, the Student Affairs Office will work with you to obtain the computer.
8. The PCAT is required for all PharmCAS applicants and an applicant's PCAT scores cannot be older than five years. Binghamton University SOPPS does not have a minimum PCAT score. Scores at or above the national average are considered highly competitive for entry.