

# MAJOR IN BIOTECHNOLOGY AND PREREQUISITES FOR THE ACCELERATED PHARMACY PROGRAM WITH MASSACHUSETTS COLLEGE OF PHARMACY AND HEALTH SCIENCES

## Requirements for a Major in Biotechnology and to meet the prerequisites for the Accelerated Pharmacy Program with Massachusetts College of Pharmacy and Health Sciences (MCPHS)

Code	Title	Credits
<b>Requirements for a Major in Biotechnology</b>		<b>(39 credits)</b>
BI-141	Intro to Cellular and Molecular Biology	4
BI-204	Microbiology	4
BT-375	Tissue Culture	4
BT-376	Biotechnology	4
BT-410	Biotechnology Seminar	1
CH-120 & CH-121	General Chemistry I and General Chemistry II	8
CH-201 & CH-203	Organic Chemistry I (lecture) and Organic Chemistry Laboratory I	5
CH-210	Chemical Analysis: an Introduction to Modern Methods	5
CH-410	Biochemistry I	4
<b>Major Electives</b>		<b>(8 credits)</b>
Select two of the following electives:		8
BI-313		
BI-398	Cancer Biology	
BI-372	Immunology	
BI-371	Advanced Topics in Cell and Molecular Biology	
BI-375	Virology	
CH-350	Medicinal Chemistry	
CH-202	Organic Chemistry II (lecture)	
CH-204	Organic Chemistry Laboratory II	
PY-310	Modern Physics	
CH-411	Biochemistry II	
BT-377	Fermentation Technology	
BT-378	Bioinformatics	
BT-450	Internship in Biotechnology	
CH-335	Green Chemistry	
CH-450	Computational Chemistry	
CH-455	Special Topics in Chemistry (Organometallics in Organic Synthesis)	
And certain other BI 300, CH 300 and PY 300 level courses with Biotech coordinator approval.		
<b>Ancillary courses</b>		<b>(32 credits)</b>
MA-150	Statistics I	3
MA-190	Pre-calculus (may be waived)	4
MA-200	Calculus I	4
MA-201 or BI-203	Calculus II Genetics	4

MA-150	Statistics I	3
Select one of the following sequences:		8
PY-221 & PY-222	General Physics I and General Physics II (8)	
PY-241 & PY-242	Physics I (Mechanics) and Physics II ( Electricity, Magnetism and Optics ) (8)	
CS-120	Microcomputer Applications	3
EN-252 or EN-253	Technical Writing Business Communications	3
<b>Accelerated Pharmacy Program with Massachusetts College of Pharmacy and Health Science University</b>		<b>(14 credits)</b>
BI-140	Introduction to Organismal Biology	4
BI-200 or BI-161	Human Biology Human Anatomy and Physiology I	4
CH-202	Organic Chemistry II (lecture)	3
Math or Computer Science Elective (e.g.: MA-190, MA-202, CS-120)		3
<b>Total Credits</b>		<b>93</b>