



Transfer Articulation Guide

North Shore Community College AA Liberal Arts - Biotechnology Option to Northeastern University College of Professional Studies

BS Biotechnology

North Shore Community College, AA Liberal Arts - Biotechnology Option Courses			Northeastern University College of Professional Studies, BS in Biotechnology Equivalencies		
First Year Fall (14 credits)					
BIO105	Biology 1: General Biology	4	BIO 1100 + BIO 1101	Principles of Biology I + Lab	4
CMP101	Composition 1	3	ENG 1105 + ENG 1106	College Writing I + Writing Lab I	3
CHE103	General Chemistry 1	4	CHM 1100 + CHM 1101	General Chemistry I + Lab	4
MAT151	Precalculus 1	3	MTH 1100	College Algebra (<i>Open Elective</i>)	3
First Year Spring (15 credits)					
CHE104	General Chemistry 2	4	CHM 1200 + CHM 1201	General Chemistry II + Lab	4
MAT152	Precalculus 2	3	MTH 1200	Pre-Calculus (<i>Open Elective</i>)	3
BIO202	Molecular Biology	4	BIO 2500 + BIO 2501	Genetics & Molecular Biology + Lab	4
BTN211	Biotechnology Seminar	1	BTC 1990	BTC Elective (<i>Major Elective</i>)	1
<i>CMP102/150</i> Recommendation: CMP102	Composition 2	3	ENG 1107 + ENG 1108	College Writing II + Writing Lab II	3
Second Year Fall (17 credits)					
BIO214	Microbiology	4	BIO 2100 + BIO 2101	Microbiology + Lab	4
BTN201	Basic Laboratory Applications	4	BTC 1300 + BTC 1301	Introduction to Biotechnology + BTC Elective	4
<i>Open Elective</i> Recommendation: CPS100 or MAT143/H	Information Technology and its Applications <i>or</i> Introduction to Statistics/Honors	3	ITC 1000 <i>or</i> MTH 2310	Computer Applications <i>or</i> Statistics for the Social and Behavioral Sciences	3
SS Elective Recommendation: ANT102	Cultural Anthropology	3	ANT 1150	Cultural Anthropology (<i>IC and SI Core</i>)	3
<i>HUM Elective</i> Recommendation: ART116 or CMP122	Intro to Digital Photography <i>or</i> Composition 2: Writing about Children's Literature	3	ART 1200 <i>or</i> ENG 3210	Intro to Digital Photography <i>or</i> Writing for Young Readers (<i>EI Core</i>)	3

Second Year Spring (16 credits)					
<i>HUM Elective</i> Recommendation: Any HUM Elective		3		<i>Open Elective</i>	3
BTN Elective Recommendation: PHI120	Medical Ethics	3	PHL 2140	Ethical Issues in Science and Engineering	3
BTN202	Biotechnology Applications	4	BTC 1990	BTC Elective (<i>Major Elective</i>)	4
<i>SS Elective</i> Recommendation: SOC202	Race, Gender, and Class	3	SOC 1230	Race and Ethnicity (<i>IC and DD Core</i>)	3
<i>SS Elective</i> Recommendation: Any SS Elective		3		<i>Open Elective</i>	3
Total Credits Completed at North Shore Community College		62	Total Credits Transferred		62
			Total Credits Applied to BS Degree		62

BS in Biotechnology Courses to be Completed at CPS

General Foundation			
Course Number	Title	Credits	Pre-Requisites
ENG 3105	Writing for the Professions-Sci and Eng	3	(ENG 1103 + ENG 1104) or (ENG 1105 + ENG 1106); ENG 3105 and ENG 3106 are co-requisites
ENG 3106	Lab for Writing for the Professions-Sci and Eng	1	
General Foundation Total		4	
Foundation			
MTH 2100	Calculus I	3	MTH 1200
MTH 2105	Calculus II	3	MTH 2100
MTH 2310	Statistics for the Social and Behavioral Sciences	3	MTH 1100, MTH 1200, or MTH 2100 <i>Do NOT take if completed MAT143/H at NSCC.</i>
BIO 1200 + BIO 1201	Principles of Biology 2 + Lab	4	BIO 1100 + BIO 1101
PHY 1200 + PHY 1201	Physics I and Lab	4	MTH 2100
PHY 2200 + PHY 2201	Physics II and Lab	4	MTH 2100
ITC 1000 <i>or</i> ITC 2016	Computer Applications <i>or</i> End User Data Analysis Tools	3	<i>Do NOT take if completed CPS100 at NSCC.</i>
Foundation Total		21	
Major Required Courses			
CHM 2110 + CHM 2111	Organic Chemistry I and Lab	4	CHM 1200 + CHM 1201
CHM 2210 + CHM 2201	Organic Chemistry II and Lab	4	CHM 2110 + CHM 2111
CHM 2300 + CHM 2301	Analytical Chemistry	4	CHM 1200 + CHM 1201
BIO 2300	Cell Biology	3	BIO 1200 + BIO 1201
BIO 3100 + BIO 3101	Biochemistry and Lab	4	BIO 1200 + BIO 1201
BTC 4450	Quality Control and Validation Issues	3	BTC 1300 and MTH 2310
BTC 4850	Biological Sciences Senior Project	3	BIO 2300 and BIO 2500
Major Required Courses Total		25	
Major Electives: Choose 3 semester hours from BIO, BTC, or HSC			
BIO 1600 + BIO 1601	Human Anatomy and Physiology I and Lab	4	BIO 1200 + BIO 1201
BIO 1700 + BIO 1701	Human Anatomy and Physiology II and Lab	4	BIO 1600 + BIO 1601
BIO 2700	Cell and Tissue Culture Techniques	4	BTC 1300, BTC 1301, BIO 1200 + BIO 1201
BTC 3300	Biomaterials	3	BIO 1200 + BIO 1201
BTC 4200	Genomics, Proteomics and Bioinformatics	3	BTC 1300 + BIO 2500
BTC 4300	Biotechnology Processing	3	BTC 1300 + BIO 2300
HSC 1200	Nutrition	3	
HSC 3300	Epidemiology	3	MTH 2300, MTH 2310 or MTH 3300
HSC 3310	Pathophysiology	3	BIO 1200 + BIO 1201
HSC 3320	Pharmacology	3	CHM 1200 + CHM 1201
Major Electives Total		3	<i>If completing 4 credits in Major Electives, then complete 7 credits for Open Electives.</i>
Open Electives Total		8	
Credits to be Completed at CPS		61	
Total Credits required for CPS BS Biotechnology		123	