



Biological Sciences- Associate in Science (2020-2021 Catalog) with HONORS

SEMESTER-BY-SEMESTER PROGRAM MAP FOR FULL-TIME

STUDENTS

Courses are listed in preferred order of completion

Plans can be modified to fit student needs by adding more semesters

Choose your courses with your Advisor.

Developmental Education Course <i>(if required)</i>		<input type="checkbox"/>	MATH020	Pre-Algebra	
<input type="checkbox"/>	ACLS050	Introduction to Academic Literacy	<input type="checkbox"/>	MATH022	Elementary Algebra
<input type="checkbox"/>	ENGL027	Writing Skills Workshop	<input type="checkbox"/>	MATH026	Intermediate Algebra

Location: B= BETH, M= MROE, S=SBTH, E= ESTN, D= DIST * *subject to change (see separate list for Honors sections)*

complete	Course #	Course Title	Credits	Gen Ed	Fall	Winter	Spring	Summer	Pre-requisites / Co-requisites
Semester 1	<input type="checkbox"/>	COLS101	College Success	1		B, M, D	----	B, M, D	D
	<input type="checkbox"/>	BIOS107	Biology I	4	Science	B,M	----	B,M	M
	<input type="checkbox"/>	CHEM120	General Chemistry I	4		B, M	----	B, M	M
	<input type="checkbox"/>	ENGL101	English I (Honors option)	3	Comm.	B, M, D, E	----	B, M, D, E	B, M, D
	<input type="checkbox"/>	MATH140 or MATH180	College Algebra or Calculus I	3 or 4	QL	B, M, D	----	B, M, D	B, M, D
Total Semester Credits:			15/16						
Semester 2	<input type="checkbox"/>	BIOS150	Biology II	4	Science	B, M	----	B, M	M
	<input type="checkbox"/>	CHEM220	General Chemistry II	4	Science	M	----	B, M	B,M
	<input type="checkbox"/>	CMTH102	Intro to Communication (Honors option)	3	Comm.	B, M, D	----	B, M, D	B, M, D
	<input type="checkbox"/>	ENGL151L	English II (Literature) (D) (Honors option)	3	Comm.	B, M, D	----	B, M, D	B, M, D
	<input type="checkbox"/>	MATH145 or MATH181	Trigonometry or Calculus II	3 or 4	QL	B, M, D	----	B, M, D	B, M, D
Total Semester Credits:			17/18						
Semester 3	<input type="checkbox"/>	BIOS2	Biology Elective	4	Science	Depends on the course selected			Depends on the course selected
	<input type="checkbox"/>	CHEM201G	Organic Chemistry I (WI)	4	Science	B, M	----	M	PRE: CHEM220 and ENGL101
	<input type="checkbox"/>	PSYC103	Intro to Psychology (Honors option)	3	SSHB	B, M, D	D	B, M, D	B, M, D
	<input type="checkbox"/>		SIT Gen Education Elective (Honors option)	3	SIT	B, M, D	D	B, M, D	B, M, D
Total Semester Credits:			14						
Semester 4	<input type="checkbox"/>	BIOS2	Biology Elective	4	Science	Depends on the course selected			Depends on the course selected
	<input type="checkbox"/>	CHEM251	Organic Chemistry II	4	Science	M	----	B, M	----
	<input type="checkbox"/>		AH Gen Education Elective (Honors option)	3	AH	B, M, D	D	B, M, D	B, M, D
	<input type="checkbox"/>		Elective (Honors option)	3		B, M, D	D	B, M, D	B, M, D
	<input type="checkbox"/>		Elective (Honors option)	3		B, M, D	D	B, M, D	B, M, D
Total Semester Credits:			17						
Total Degree Credits			31						

General Education Requirements		
<input type="checkbox"/>	ENGL151L	Diversity
<input type="checkbox"/>	CHEM201G	Writing Intensive
<input type="checkbox"/>		Writing Intensive

HONORS Requirements (at least 12 credits of Honors courses & 3.5 GPA)		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		

*Biology electives: Students are required to take two of four Biology courses of 206 (General Ecology), 210 (Environmental Biology), 240 (Microbiology) or 260 (Genetics).

◦For students with an Environmental Science intent, BIOS 206 and BIOS 210 are recommended

◦For students with an Integrative Biology intent, BIOS 260 and either BIOS 206 or BIOS 210 are recommended

Some recommended electives are GEOG 121, GEOG 140, SOCA103, BIOS126, BIOS210, GEOG 210, HUMA150, CHEM260,

SIT Gen Elective Honors Courses: HIST 113, HIST 163, POLS 101, SOCA 160

AH Gen Elective Honors Courses: CMTH 220, ENGL 203, ENGL 264, ENGL 265, JOUR 101, PHIL 201, PHIL 202G, PHIL 204

Elective Honors Courses: ALL honors courses

Arts & Humanities (AH)	Societies & Institutions Over Time (SIT)	Electives for A.A. & A.S. Degrees	Writing Intensive Gen Ed Courses (WI)																				
ARTA 100 Art and Visual Thinking ARTA 101 Art History Survey CMTH 110 Introduction to the Theatre CMTH 111 Acting I CMTH 115 Technical Theatre CMTH 117 Stagecraft CMTH 126 The Communication Arts CMTH 189 Stage Voice and Movement CMTH 190 Stage Production CMTH 206 Directing CMTH 211 Plays: Classical to Contemp. (G-WI) CMTH 212 Acting II CMTH 218 Theatre Portfolio CMTH 220 Introduction to Film DANC 101 Dance History DANC 110 Ballet I DANC 120 Modern Dance I DANC 130 Jazz I DANC 210 Ballet II DANC 220 Modern Dance II DANC 230 Jazz II ENGL 201 British Literature I (G-WI) ENGL 203 Shakespeare (G-WI) ENGL 205 American Literature I (G-WI) ENGL 211 Plays: Classical to Contemp. (G-WI) ENGL 215 Multicultural Adolescent Lit (G-WI) ENGL 250 Latin American Literature (G-WI) ENGL 251 British Literature II (G-WI) ENGL 253 Creative Writing ENGL 255 American Literature II (G-WI) ENGL 256 Modern Poetry (G-WI) ENGL 257 20th Century Lit by Women (G-WI) ENGL258 Fiction Writing ENGL 260 Contemporary Literature (G-WI) ENGL 264 Irish Literature (G-WI) ENGL 265 African-American Literature (G-WI) ENGL 267 Poetry Writing HUMA 121 The American Work Experience (G-WI) HUMA 140 Intro to Women & Gender Studies (G-WI) HUMA 150 Nature of the Environment HUMA210 Creativity and the Origin of Ideas JOUR 101 Journalism and Society Modern Language - All MDLA Courses MUSC 101 Introduction to Music PHIL 111 On Death and Dying (G-WI) PHIL 121 World Religions PHIL 201 Introduction to Philosophy PHIL 202 Ethics and Moral Problems (G-WI) PHIL 204 Asian Philosophies PHIL 211 Ancient Philosophy PHIL 215 Modern Philosophy PHIL 225 What is Freedom?	CMTH 221 History of Broadcasting GEOG 101 World Geography GEOG 151 Geography of the U.S. and Canada (G-WI) GLBL 130 Intro to Global Studies GLBL 160 Field Experience & Acad Research in GS GLBL 230 Global Studies Capstone HIST 103 Ancient and Medieval History HIST 113 American History I (G-WI) HIST 121 The Black Experience (G-WI) HIST 123 African Civilization HIST 140 Modern Chinese History HIST 153 Found of Mod Euro History, 1300-1815 (G-WI) HIST 163 American History II HIST 165 The American Experience of Warfare (G-WI) HIST 166 Civil War and Reconstruction (G-WI) HIST 168 History of the Middle East (G-WI) HIST 173 Mod European History, 1815 to Present (G-WI) HIST 210 History of Mod Science, 1859 to Present HIST 211 History of Pennsylvania INTS 201 Implementing Sustainable Energy System... INTS 202 The Architecture of the City: Classic to Contemp. POLS 101 Introduction to Political Science POLS 105 American Constitutional Law (G-WI) POLS 110 American National Government (G-WI) POLS 150 Peace Studies & Conflict Res (Study Abroad) POLS 170 Politics of Modern Turkey (Study Abroad) POLS 202 International Relations POLS 205 Women and Politics (G-WI) POLS 251 State and Local Government (G-WI) SOCA 102 Cultural Anthropology (G-WI) SOCA 105 American Ethnicity SOCA 160 Issues in Contemp.Genocide & Mass Violence	Accounting – only ACCT 100, 101, 151, 201, 202, 251 Architecture – only ARCH 100 Art – only ARTA 101, 111, 161, 162, 291, 292, 293 Biological Science – all BIOS except 281, 282, 283 Business – only BUSA 101, 115, 152, 201, 202, 205, 232, 272 Chemistry – only CHEM 105, 120, 135, 220, 225, 251, 260, 291, 292, 293, 294 College Success: COLS101, 120 Communications – all CMTH except 180, 182, 185, 240, 252 Computer/Information Science – only CISC 101, 104, 115, 125, 225, 230, 270 Counseling – only COUN 100, 291, 292, 293 Dance – all DANC Economics – ECON201, 251G Education – all EDUC except 105 Engineering – only ENGG 100, 191, 192, 193, 194, 201, 251, 252 English – all ENGL Geography – all GEOG Global Studies - GLBL130, 160, 230 Health – only HEAL 150 History – all HIST Hospitality – only HOSP 101 Humanities – all HUMA Interdisciplinary Studies – INTS 101, 202, 250 Journalism – only JOUR 103 Mathematics – only MATH 120, 140, 145, 150, 160, 165, 175, 176, 180, 181, 191-194, 202, 210, 211 Modern Language – all MDLA Music – all MUSC Nutrition- NUTR105 Philosophy – all PHIL Physical Education – any PHED courses up to a max of two credits Physics – all PHYS Political Science – all POLS Publishing - 101, 102 Psychology – all PSYC except 221 Sociology/Antropology – all SOCA Special Education – SPED 160	BIOS105G Contemporary Biology CMTH 211G Plays: Classical to Cont ENGL 201G British Literature I ENGL 203G Shakespeare ENGL 205G American Literature I ENGL 211G Plays: Classical to Contemporary ENGL 215G Multicultural Adolescent Literature ENGL 250G Latin American Literature ENGL 251G British Literature II ENGL 255G American Literature II ENGL 256G Modern Poetry ENGL 257G 20th Century Lit by Women ENGL 260G Contemporary Literature ENGL 264G Irish Literature ENGL 265G African-American Literature GEOG 121G Environmental Sustainability GEOG 151G Geography of the US & Canada HIST 113G American History I HIST 121G The Black Experience HIST 153G Found of Mod Euro Hist (1300-1815) HIST 166G Civil War and Reconstruction HIST 168G History of the Middle East HIST 173G Mod Euro History, 1815 to Present HUMA 121G The American Work Experience HUMA 140G Intro to Women & Gender Studies HUMA250G Research Methods in the Social Sciences PHIL 111G On Death and Dying PHIL 202G Ethics and Moral Problems POLS 105G American Constitutional Law POLS 110G American National Government POLS 205G Women and Politics POLS 251G State and Local Government PSYC 103G Introduction to Psychology PSYC 258G Developmental Psychology SOCA 102G Cultural Anthropology SOCA 103G Principles of Sociology SOCA 125G Sociology of Families																				
	<table border="1"> <thead> <tr> <th colspan="2" data-bbox="487 1053 1003 1075">Biology Electives</th> </tr> </thead> <tbody> <tr> <td data-bbox="487 1081 693 1102">BIOS206 General Ecology</td> <td data-bbox="701 1081 1003 1102">PRE: BIOS107 & 150</td> </tr> <tr> <td data-bbox="487 1109 693 1130">BIOS210 Environmental Biology</td> <td data-bbox="701 1109 1003 1130">PRE: BIOS107</td> </tr> <tr> <td data-bbox="487 1135 693 1156">BIOS240 Microbiology</td> <td data-bbox="701 1135 1003 1156">PRE: BIOS150 & CHEM120</td> </tr> <tr> <td data-bbox="487 1162 693 1183">BIOS260 Genetics</td> <td data-bbox="701 1162 1003 1183">PRE: BIOS150 & CHEM220</td> </tr> <tr> <td colspan="2" data-bbox="487 1190 1003 1211">Availability:</td> </tr> <tr> <td colspan="2" data-bbox="487 1218 1003 1239">BIOS206: FA- BETH, MROE</td> </tr> <tr> <td colspan="2" data-bbox="487 1245 1003 1266">BIOS210: SP-BETH, MROE</td> </tr> <tr> <td colspan="2" data-bbox="487 1273 1003 1294">BIOS240: FA- MROE; SP-BETH, MROE</td> </tr> <tr> <td colspan="2" data-bbox="487 1300 1003 1321">BIOS260: FA-BETH, SP-MROE</td> </tr> </tbody> </table>	Biology Electives		BIOS206 General Ecology	PRE: BIOS107 & 150	BIOS210 Environmental Biology	PRE: BIOS107	BIOS240 Microbiology	PRE: BIOS150 & CHEM120	BIOS260 Genetics	PRE: BIOS150 & CHEM220	Availability:		BIOS206: FA- BETH, MROE		BIOS210: SP-BETH, MROE		BIOS240: FA- MROE; SP-BETH, MROE		BIOS260: FA-BETH, SP-MROE		Recommended electives are GEOG 121, GEOG 140, SOCA103, BIOS126, BIOS210, GEOG 210, HUMA150,	<p>Note: One elective course must be writing intensive. General Education courses offered as writing intensive are noted with a G-WI</p> <p>For example: HIST113 is not writing intensive, but HIST113G is writing Intensive</p>
Biology Electives																							
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Notes:

To plan the correct sequence, be aware that these electives are not offered at both campuses each semester:

- BIOS 206: FA-BETH, MROE; -BIOS 240: FA-MROE, SP-BETH, MROE;
- BIOS 210: SP-BETH, MROE; -BIOS260: FA-BETH, SP-MROE

Program Narrative:

- Are you interested in pursuing a bachelor's degree in Biological Science? Are your career goals in the area of medicine or scientific research? Northampton's Biological Science program is an affordable way to start. With a curriculum that parallels the first two years of most four-year programs, NCC can save you thousands of dollars on your undergraduate degree.
- NCC's program can be customized to prepare you for the range of majors and fields that are based in biological sciences, including environmental sciences, genetics, molecular biology and more. By working closely with an advisor, you can choose the right electives, and stay on track with the requirements of the transfer college of your choice.

Program Requirements:

- We expect you to have an adequate background in chemistry and algebra. If you need to develop this background, you may take the necessary preparatory classes prior to, or during your first semester.

Program Learning Outcomes: Graduates of the program will:

- Understand fundamentals concepts of Biology, which characterize the various life science fields including Botany, Environmental Science, Genetics, Cellular and Molecular Biology and Zoology.
- Demonstrate oral and written communication skills necessary for sharing discipline-specific knowledge and communicating professionally.
- Conduct scientific inquiry and research on biological science topics as they relate to science, technology and society.
- Proficiently function in laboratory and field settings, using modern scientific instrumentation, including microscopes, measuring devices and computer technology.
- Demonstrate understanding of the fundamentals of lab safety, to ensure both personal and environmental safety.
- Understand the use of the scientific method, interpretation of scientific data and scientific literature.
- Be prepared to transfer to a four-year Bachelor's Program or a pre-med, pre-vet or other pre-professional programs.

Transfer Information:

- NCC has dual admissions agreements with a variety of colleges. These arrangements enable you to have admission to Northampton and the four-year institutions you select
- NCC offers transfer agreement with Pennsylvania State University-Berks/Lehigh Valley and State University of New York College of Environmental Sciences and Forestry.
- NCC students have transferred to Cedar Crest College, East Stroudsburg University, Florida Institute of Technology, Kutztown University, Millersville University, Moravian College Pennsylvania State University, Rochester Institute of Technology, Temple University, University of Colorado, West Chester University, Many others nationwide.

Career Information: Completion of the Biological Sciences program leads to transfer degrees in: Research, Teaching, Medicine, Forestry Management, Biotechnology, Pharmaceutical Technology, Environmental Studies, and Veterinary Medicine.