



Chemistry- Associate in Science (2021-2022 Catalog)

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 Courses (if required)			<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

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"/>	CMTH102	Introduction to Communication	3	Comm.	B, M, D	----	B, M, D	B, M, D	
	<input type="checkbox"/>	CHEM120	General Chemistry I	4	Science	B, M	----	B, M	M	PRE: MATH022 or Placement Policy, 1yr of HS Chemistry or CHEM011, ENGL101 eligibility
	<input type="checkbox"/>	ENGL101	English I	3	Comm.	B, M, D, E	----	B, M, D, E	B, M, D	PRE: ENGL Placement Policy
	<input type="checkbox"/>	MATH180	Calculus I	4	QL	B, M, D	----	B, M, D	B, M, D	PRE: MATH145 or 160 with C or better or Placement
		Total Semester Credits:	15							
Semester 2	<input type="checkbox"/>	CHEM220	General Chemistry II	4	Science	M	----	B, M	M	PRE: CHEM120
	<input type="checkbox"/>	ENGL151L	English II	3	Comm.	B, M, D	----	B, M, D	B, M, D	PRE: ENGL101
	<input type="checkbox"/>	MATH181	Calculus II	4	QL	B, M	----	B, M	B, M	PRE: MATH176 or 180 with C or better or placement
	<input type="checkbox"/>		AH Gen Ed Elective	3	AH,SIT,SSHB	B, M, D	D	B, M, D	B, M, D	Depends on course selected
		Total Semester Credits:	14							
Semester 3	<input type="checkbox"/>	CHEM201G	Organic Chemistry I (WI)	4	Science	B, M	----	M	----	PRE: CHEM220 and ENGL101
	<input type="checkbox"/>	PHYS215	Physics for Science & Engineering I	5	Science	B, M	----	M	----	PRE: MATH181 with C or better
	<input type="checkbox"/>		SIT Gen Ed Elective	3	AH,SIT,SSHB	B, M, D	D	B, M, D	B, M, D	Depends on course selected
	<input type="checkbox"/>		SSHB Gen Ed Elective	3	AH,SIT,SSHB	B, M, D	D	B, M, D	B, M, D	Depends on course selected
		Total Semester Credits:	15							
Semester 4	<input type="checkbox"/>	CHEM251	Organic Chemistry II	4	Science	M	----	B, M	----	PRE: CHEM201G
	<input type="checkbox"/>	PHYS225	Physics for Science & Engineering II	5	Science	B, M	----	B, M	----	PRE: PHYS215
	<input type="checkbox"/>		Elective	4		B, M, D	D	B, M, D	B, M, D	Depends on course selected
	<input type="checkbox"/>		Elective	4		B, M, D	D	B, M, D	B, M, D	Depends on course selected
		Total Semester Credits:	17							
		Total Degree Credits	61							

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

Notes:

- Students that are not CHEM 120 ready for their first semester should take CHEM 011 in its place.
- Students that are not MATH 180 ready for their first semester should take MATH 160 in its place. If the student is not MATH 160 ready they should take MATH 140. It is highly recommended that all students start their math sequence in the first semester.
- Completion of CHEM 201G satisfies the program-related Writing Intensive (WI) requirement. The second Writing Intensive (WI) requirement can be fulfilled with any of the electives in the SIT, SSHB, and AH categories. Writing Intensive sections end in "G" (e.g. PSYC103G).
- Computer competencies are included in various program courses, specifically CHEM 120, 220, 210G, and 251. Thus, completing the program automatically satisfies the computing requirement for this program.

***It is the student's responsibility to be knowledgeable of NCC graduation requirements and to verify transfer requirements with the 4-year institution. Courses listed on the program map are based upon the assumption that prerequisites and courses taken in previous semesters will be successfully completed**

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 CMTH235 Understanding Culture Through 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 PHIL220 Existentialism 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 183 Modern American History 1945-Present 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 Resolution (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, 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 104 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 165G The American Experience of Warfare 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
	Scientific Study of Human Behavior (SSHB) ECON 201 Macroeconomics FDST110 Food and Identity GEOG 121 Environmental Sustainability (G-WI) GEOG 140 Investigating Climate Change) GEOG 271 Intro to Geographic Info Systems HUMA 250 Research Methods in Social Sciences (G-WI) INTS 250 Study Abroad PSYC 103 Introduction to Psychology (G-WI) PSYC 205 Research Methods PSYC 230 Introduction to Health Psychology PSYC 235 Dev Child Psychopathology PSYC 245 Cognitive Psychology PSYC 255 Abnormal Psychology PSYC 258 Developmental Psychology (G-WI) PSYC 265 Psychology of Sex and Gender SOCA 103 Principles of Sociology (G-WI) SOCA 125 Sociology of Families (G-WI) SOCA 210 Sociology of Gender		

Program Narrative:

If you are interested in pursuing a bachelor's degree in chemistry or a career in the areas of medicine or scientific research, Northampton's Chemistry 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. 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. Another option some graduates have chosen is to enter the job market upon completion of their two-year Chemistry degree. NCC's program prepares you for the range of fields that are based in chemistry, including environmental sciences, manufacturing, biotechnology and more.

Program Requirements:

While there are no special admissions requirements for the Chemistry program, certain courses in the program require a background in English, algebra, and chemistry. If you are lacking background in these areas, you should acquire it during the summer preceding your first semester. Northampton's admissions and counseling staff can answer any questions or concerns you may have regarding your enrollment into this program.

Program Learning Outcomes: Graduates will be able to:

- Demonstrate the ability to solve problems and explain chemical processes.
- Apply scientific principles and skills in conducting experiments, and in the use of instrumentation and analysis of results.
- Present research in acceptable written and oral format using scientific literature and computer aided analysis
- Demonstrate the ability to work successfully in independent and collaborative settings.
- Demonstrate best practice of safety and laboratory techniques and procedures.

Transfer Information:

NCC students have transferred to: Cedar Crest College, East Stroudsburg University, Kutztown University, Lafayette College, Lehigh University, Lock Haven University, Penn State University, University of Hawaii.

Career Information:

The A.S. in CHEMISTRY prepares you for these other areas of study: Medical School, Biotechnology, and a multitude of chemistry related industries.