

From: **College of New Caledonia (CNC)**  
Associate of Science Degree, Biology Concentration

To: **University of Northern BC (UNBC)**  
Bachelor of Science (BSc Degree, Major in Chemistry)

The following list of course equivalents will appear on the transfer credit summary for students who have successfully completed **CNC's Associate of Science Degree** and pursue a **Bachelor of Science Degree, major in Chemistry at UNBC**

Information in this handout is unofficial and should be used as a guide only. For questions regarding admission to UNBC or course selection please contact Student Recruitment & Advising at 250-960-6306 or [advising@unbc.ca](mailto:advising@unbc.ca).

NOTE: As per UNBC Undergraduate Calendar Regulation number 14, "Students must complete a minimum of 30 credit hours of upper division UNBC course work to receive a UNBC degree."

### Associate of Science Degree Graduation Requirements – Specific

1. 6 credits in first year English; and
2. 6 credits in mathematics which shall include at least 3 credits in calculus; and Math
3. 36 credits in science, which shall include at least 3 credits in laboratory science; and
4. 6 credits in arts, other than English (excluding mathematics and laboratory science courses); and
5. 6 credits in arts, science or other areas.

**Note 1:** Students must have completed at least three semester credits in the semester the degree is awarded.

**Note 2:** Unassigned credits from other institutions for inclusion in the course work leading to the Associate of Sciences degree will be limited to 15 credits. The final decision for determining course area, level, and number of credit hours will be made by the Dean or senior academic administrator in the UT Science program area.

**Note 3:** Students are advised to consult with a CNC advisor in order to determine specific course requirements for entry to a particular university degree program.

**Note 4:** A laboratory science course is any course in the sciences list worth 3 credits or more and with a lab of at least 2 hours, but excluding any course in applied science (engineering) or computing science.

Biology Concentration	CNC Course Name	UNBC Equivalence <sup>1</sup>
<b>Biology Requirements:</b>		
BIO 107	Cellular and Organismal Genetics, Evolution, and Ecology	} BIOL 103-3 & BIOL 104-3 & BIOL 123-1 & BIOL 124-1
BIO 120		
BIO 201	Cell Structure	BIOL 311-3
BIO 202	Introductory Biochemistry	CHEM 204-3 & CHEM 2XX-1
BIO 215	Microbiology	BIOL 203-3
BIO 220	Introductory Genetics	BIOL 210-3
One of:		
CHEM 111 or CHEM 113	Fundamentals of Chemistry I Introduction to Chemistry I	CHEM 100-3 & CHEM 120-1 <sup>2</sup> CHEM 100-3 & CHEM 120-1 <sup>2</sup>
One of:		
CHEM 112 or CHEM 114	Fundamentals of Chemistry II Introduction to Chemistry II	CHEM 101-3 & CHEM 121-1 <sup>2</sup> CHEM 101-3 & CHEM 121-1 <sup>2</sup>
CHEM 203	Organic Chemistry I	CHEM 201-3 & CHEM 250-1
CHEM 204	Organic Chemistry II	CHEM 203-3 & CHEM 251-1
MATH 101 <sup>4</sup>	Calculus I	MATH 100-3 <sup>3&amp;4</sup>
MATH 102 <sup>4</sup>	Calculus II	MATH 101-3 <sup>4</sup>
One of:		
PHYS 101 or PHYS 105	Introductory Physics I General Physics I	PHYS 110-4 PHYS 100-4

## Biology Requirements Cont'd:

One of:

PHYS 102	Introductory Physics II	PHYS 111-4
or PHYS 106	General Physics II	PHYS 101-4

## English Requirement

ENGL 103	Composition and Style	ENGL 170-3
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3 additional credits 100-level UT (University Transfer) English\*\*

## Humanities & Social Science Requirement

6 credits in Humanities or Social Sciences, in addition to the 6 credits of required English courses\*\*

## Electives

6 additional UT credits in any area\*\*

**Note:** Students should speak with an Academic advisor to ensure their electives are eligible to count towards an Associate of Arts Degree.

<sup>1</sup> Course equivalencies were determined through the articulation process and are listed on the BC Transfer Guide, [www.bctransferguide.ca](http://www.bctransferguide.ca)

Student will need to choose coursework appropriately so as not to receive duplicate Transfer Credit.

<sup>2</sup> Students will need to complete CHEM 111 & CHEM 112 OR CHEM 113 & CHEM 114 to earn credit at UNBC.

<sup>3</sup> Students will be awarded credit for only one of UNBC MATH 100-3 or UNBC MATH 105-3 or UNBC MATH 152-3.

<sup>4</sup> Must achieved a C- (60% at UNBC) or better for all Math transfer credit to use as a prerequisite for UNBC coursework

**Note:** Above based on CNC 2018/19 Academic Calendar

\*\*Students can take any course that transfers to UNBC in order to receive credits in this area. Check the BC Transfer Guide for these courses – [www.bctransferguide.ca](http://www.bctransferguide.ca). Please see **Recommended Courses to take** section below for suggested courses to take to fulfill these credits.

## Recommended Courses to take:

CNC Course	CNC Course Name	UNBC Equivalence <sup>1</sup>
CHEM 201	Physical Chemistry	CHEM 200-3 and CHEM 2XX-1
CHEM 205	Intro to Analytical Chemistry	CHEM 210-3
CSC 109	Intro to Computer Science I	CPSC 1XX-3 – Waive UNBC CPSC 100-4
MATH 201 <sup>2</sup> and MATH 202 <sup>2</sup>	Calculus III & IV	MATH 200-3 <sup>2</sup> and MATH 2XX-3 <sup>2</sup>
MATH 204 <sup>2</sup>	Linear Algebra	MATH 220-3 <sup>2</sup>

<sup>1</sup> Students need to verify they are completing approved University Transfer Credit coursework as per the BC Transfer Guide. Courses in the Creative and Performing Arts as well as Career program and other courses considered for the Associate degree may not be eligible for transfer credit to UNBC.

<sup>2</sup> Must achieved a C- (60% at UNBC) or better for all Math transfer credit to use as a prerequisite for UNBC coursework

Sample of **UNBC Calendar** requirements for the Chemistry major and how CNC Associate of Science Degree Biology Concentration coursework *may be* used towards completion of the degree at UNBC<sup>1</sup>.

**UNBC Calendar Information, Course Number & Course Name**

**CNC Equivalence<sup>1</sup>**

The major in Chemistry requires students to take at least 64 credit hours of Chemistry, 36 credit hours of which must be upper-division (i.e., 300 or 400) level.

The minimum requirement for completion of a Bachelor of Science with a major in Chemistry is 128 credit hours.

**Program Requirements**

**Lower-Division Requirement - 100 Level**

BIOL 103-3	Introductory Biology I	}	✓ Completed at CNC, BIO 107 and BIO 120
BIOL 104-3	Introductory Biology II		
BIOL 123-1	Introductory Biology I Lab		
BIOL 124-1	Introductory Biology II Lab		
CHEM 100-3	General Chemistry I	}	✓ Completed at CNC, CHEM 111 & CHEM 112 or CHEM 113 & CHEM 114
CHEM 101-3	General Chemistry II		
CHEM 120-1	General Chemistry Lab I		
CHEM 121-1	General Chemistry Lab II		
CPSC 100-4 or CPSC 110-3	Computer Programming I Introduction to Computer Systems and Programming	}	- Can be completed at CNC, CSC 109
MATH 100-3 <sup>2</sup>	Calculus I		✓ Completed at CNC, MATH 101 <sup>2</sup>
MATH 101-3 <sup>2</sup>	Calculus II		✓ Completed at CNC, MATH 102 <sup>2</sup>
PHYS 100-4 or PHYS 110-4	Introduction to Physics I Introductory Physics I: Mechanics	}	✓ Completed at CNC, PHYS 105 or PHYS 101
and PHYS 101-4 or PHYS 111-4	Introduction to Physics II Introductory Physics II: Waves and Electricity	}	✓ Completed at CNC, PHYS 106 or PHYS 102

PHYS 110-4 and PHYS 111-4 are strongly recommended.

**200 Level**

CHEM 200-3	Physical Chemistry I		- Can be completed at CNC, CHEM 201
CHEM 201-3	Organic Chemistry I	}	✓ Completed at CNC, CHEM 203
CHEM 250-1	Organic Chemistry Lab I		
CHEM 202-3	Inorganic Chemistry I		☐ To be completed at UNBC
CHEM 203-3	Organic Chemistry II	}	✓ Completed at CNC, CHEM 204
CHEM 251-1	Organic Chemistry Lab II		
CHEM 204-3	Introductory Biochemistry		✓ Completed at CNC, BIO 202
CHEM 210-3	Analytical Chemistry I		- Can be completed at CNC, CHEM 205
MATH 220-3 <sup>2</sup>	Linear Algebra		- Can be completed at CNC, MATH 204 <sup>2</sup>

*One of the following:*

MATH 200-3 <sup>2</sup>	Calculus III	}	- Can be completed at CNC, MATH 201 <sup>2</sup> and MATH 202 <sup>2</sup>
STAT 371-3 <sup>2</sup>	Probability and Statistics for Scientists and Engineers		

UNBC BSc, Major in Chemistry Calendar requirements continued:

**Upper-Division Requirement - 300 Level**

CHEM 300-3	Physical Chemistry II
or CHEM 305-3	Physical Chemistry III
CHEM 310-3	Analytical Chemistry II
CHEM 315-3	Physical Chemistry Lab
CHEM 320-3	Inorganic Chemistry II
or CHEM 321-3	Inorganic Chemistry III
CHEM 322-3	Inorganic Chemistry Lab

**Upper Division (400 Level)**

CHEM 401-3	Chemistry Seminar
CHEM 406-3	Advanced Laboratory I
CHEM 407-3	Advanced Laboratory II

Nine credit hours of 300 or 400 level Chemistry \*  
Three credit hours of 400 level Chemistry \*

\*Up to 6 credit hours from BCMB 306-3, BCMB 307-3, BCMB 308-3, BCMB 330-3, BCMB 340-3, BCMB 401-3, BCMB 402-3, BCMB 403-3, BCMB 405-3 or BCMB 409-3 may be used to satisfy these requirements.

**Elective and Academic Breadth Requirement**

Elective credit hours as necessary to ensure completion of a minimum of 128 credit hours, including any additional credits necessary to meet the Academic Breadth requirement of the University (see Academic Regulation 15). A maximum of three credit hours from Continuing Studies may be used towards the elective credits. A total of 54 credit hours of upper-division study (300- and 400-level courses) must be successfully completed to meet degree requirements.

To be completed at UNBC

\* Please discuss how to complete this requirement with your Student Advisor. Depending on course selection, students may be able to complete some or all of this requirement at CNC.

<sup>1</sup> Based on the 2019/20 UNBC Academic Calendar year.

<sup>2</sup> Must achieved a C- (60% at UNBC) or better for all Math transfer credit to use as a prerequisite for UNBC coursework