

From: **Langara College (LANG)**  
Associate of Science Degree, Chemistry

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

The following list of course equivalents will appear on the transfer credit summary for students who have successfully completed **Langara's Associate of Science Degree** and declare their **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

Within the minimum 60 credits, students must complete:

1. 6 credits of MATH which shall include at least one course (3 credits) in Calculus;
2. a minimum of 36 credits of science, which shall include at least:
  - a. 3 credits in laboratory science;
  - b. A minimum of 18 credits in science at the second-year level taken in two or more subject areas;
3. 6 credits of first-year ENGL;
4. 6 credits of first or second year arts other than ENGL (excluding MATH and laboratory-based science courses);
5. a minimum of 6 credits of first or second year arts, science or other university-transfer courses. (Students may include university-transfer credit from career program and KINS and RECR course offerings); and
6. a minimum cumulative GPA of 2.0.

No course may be used to meet more than one of the specific requirements.

Applicable to Chemistry	LANG Course Name	UNBC Equivalence <sup>1</sup>
Within the framework of the general requirements for the Associate of Science Degree (above), students must complete a minimum of 60 credits including:		
All of	CHEM 1120	General Chemistry I } General Chemistry II } Analytical Chemistry } Coordination Chemistry } Organic Chemistry I } Organic Chemistry II } Calculus III } Linear Algebra } Physics II with Calculus }
	CHEM 1220	
	CHEM 2222	
	CHEM 2208	
	CHEM 2316	
	CHEM 2416	
	MATH 2371	
	MATH 2362	
PHYS 1225	PHYS 111-4	
One of	ENGL 1123	ENGL 170-3
	ENGL 1127	ENGL 170-3 or ENGL 1XX-3
	ENGL 1128	ENGL 170-3 or ENGL 1XX-3
One of	ENGL 1129	ENGL 100-3
	ENGL 1130	ENGL 1XX-3
One of	MATH 1153 &	Introduction to Calculus I (Part I) } Introduction to Calculus I (Part II) } Calculus II }
	MATH 1253 &	
	MATH 1271	
or	MATH 1171 &	Calculus } Calculus II }
MATH 1271		

**Cont'd:***or*

MATH 1173 & MATH 1183 & MATH 1273 & MATH 1283	Calculus I with Computer Explorations Computer Explorations for Calculus I Calculus II with Computer Explorations Computer Explorations for Calculus II	} } MATH 100-3 <sup>2</sup> } MATH 101-3 <sup>2</sup>
--	--	---

One of	PHYS 1101 PHYS 1125	Physics I for Life Sciences Physics I with Calculus	PHYS 1XX-4 PHYS 110-4
--------	------------------------	--	--------------------------

<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> 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 Langara 2020 website.

**Recommended Courses to take:**

LANG Courses	LANG Course Name	UNBC Equivalence <sup>1</sup>
BIOL 1115	General Biology I	BIOL 103-3 & BIOL 123-1
BIOL 1215	General Biology II	BIOL 104-3 & BIOL 124-1
BIOL 2370	Microbiology	BIOL 203-3
BIOL 2330	Genetics	BIOL 210-3
BIOL 2315	Biochemistry	CHEM 204-3 & BCMB 2XX-1 <sup>2</sup>
BIOL 2415	Cell Biology	BIOL 311-3 <sup>2</sup>
MATH 1171	Calculus	MATH 100-3 <sup>3</sup>
MATH 1271	Calculus	MATH 101-3 <sup>3</sup>
PHYS 1125	Physics I with Calculus	PHYS 110-4

<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 must take both LANG BIOL 2315 & LANG BIOL 2415 to received credit for UNBC CHEM 204-3, UNBC BCMB 2XX-1 and UNBC BIOL 311-3.

If students only take LANG BIOL 2315, they can receive credit for UNBC CHEM 204-3 & UNBC BCMB 2XX-1

<sup>3</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 Biochemistry and Molecular Biology major and how Langara Associate of Science Degree in Chemistry coursework *may be* used towards completion of the degree at UNBC<sup>5</sup>:

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

**LANG 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 Requirements**

**100 Level**

BIOL 103-3	Introductory Biology I	}	- Can be completed at LANG, BIOL 1115 & LANG, BIOL 1215
BIOL 104-3	Introductory Biology II		
BIOL 123-1	Introductory Biology I Laboratory		
BIOL 124-1	Introductory Biology II Laboratory		
CHEM 100-3	General Chemistry I	}	✓ Completed at LANG, CHEM 1120 & LANG, CHEM 1220
CHEM 101-3	General Chemistry II		
CHEM 120-1	General Chemistry Lab I		
CHEM 121-1	General Chemistry Lab I		
CPSC 100-4	Computer Programming I	}	□ To be completed at UNBC
or CPSC 110-3	Introduction to Computer Systems and Programming		
MATH 100-3	Calculus I	}	- Can be completed at LANG, MATH 1171 - Can be completed at LANG, MATH 1271
MATH 101-3	Calculus II		
PHYS 100-4	Introduction to Physics I	}	- Can be completed at LANG, PHYS 1125
or PHYS 110-4	Introductory Physics I: Mechanics		
PHYS 101-4	Introduction to Physics I		
or PHYS 111-4	Introductory Physics II: Waves & Electricity	✓ Completed at LANG, PHYS 1225	

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

**200 Level**

CHEM 200-3	Physical Chemistry I	□ To be completed at UNBC
CHEM 201-3	Organic Chemistry I	✓ Completed at LANG, CHEM 2316
CHEM 202-3	Inorganic Chemistry I	□ To be completed at UNBC
CHEM 203-3	Organic Chemistry II	✓ Completed at LANG, CHEM 2416
CHEM 204-3	Introductory Biochemistry	- Can be completed at LANG, BIOL 2315
CHEM 210-3	Analytical Chemistry I	□ To be completed at UNBC
CHEM 250-1	Organic Chemistry Lab I	✓ Completed at LANG, CHEM 2316
CHEM 251-1	Organic Chemistry Lab II	✓ Completed at LANG, CHEM 2316

One of the following:

MATH 200-3	Calculus II	}	✓ Completed at LANG, STAT 1123
STAT 371-3	Probability and Statistics for Scientists and Engineers		

UNBC Chemistry major Calendar requirements continued:

**Upper-Division Requirements**

**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

**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 complete 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 Langara.

<sup>1</sup>Based on the 2020/21 UNBC Academic Calendar year.

<sup>2</sup> Must have a C- or better at CNC to use as a prerequisite at UNBC.