

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  
Biochemistry and Molecular Biology)

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 Biochemistry and Molecular Biology 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	} BIOL 103-3 & BIOL 104-3 & BIOL 123-1 & BIOL 124-1
BIO 120	Genetics, Evolution, and Ecology	
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	Fundamentals of Chemistry I	CHEM 100-3 & CHEM 120-1 <sup>2</sup>
or CHEM 113	Introduction to Chemistry I	CHEM 100-3 & CHEM 120-1 <sup>2</sup>
One of:		
CHEM 112	Fundamentals of Chemistry II	CHEM 101-3 & CHEM 121-1 <sup>2</sup>
or CHEM 114	Introduction to Chemistry II	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	Introductory Physics I	PHYS 110-4
or PHYS 105	General Physics I	PHYS 100-4

## Biology Requirements Cont'd:

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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.

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<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:

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CNC Course	CNC Course Name	UNBC Equivalence <sup>1</sup>
MATH 104 <sup>2</sup>	Introduction to Statistics	STAT 240-3 <sup>2</sup>
PSYC 209	Intro to Biological Psychology	PSYC 317-3

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<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 Biochemistry and Molecular Biology 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 Biochemistry and Molecular Biology requires students to take at least 74 credit hours of Biochemistry and Molecular Biology-oriented courses, of which 33 credit hours must be upper division (i.e., 300 or 400 level). The minimum requirement for completion of a Bachelor of Science with a major in Biochemistry and Molecular Biology is 127 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		
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
PHYS 101-4 or PHYS 111-4	Introduction to Physics II Introductory Physics II: Waves & Electricity		
<b>200 Level</b>			
BCMB 255-2	Biochemistry Lab I		* Possible waiver if CNC BIO 202 completed with a grade of a UNBC C or better <sup>3</sup>
BIOL 203-3	Microbiology		✓ Completed at CNC, BIO 215
BIOL 210-3	Genetics		✓ Completed at CNC, BIO 220
CHEM 201-3	Organic Chemistry I	}	✓ Completed at CNC, CHEM 203
CHEM 250-1	Organic Chemistry Lab I		
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
STAT 240-3 <sup>2</sup> or STAT 371-3 <sup>2</sup>	Basic Statistics Probability and Statistics for Scientists and Engineers	}	* Can be completed at CNC, MATH 104 <sup>2</sup>

UNBC BSc, Major in Biochemistry and Molecular Biology Calendar requirements continued:

**Upper-Division Requirement - 300 level**

BCMB 306-3	Intermediary Metabolism
BCMB 308-3	Biochemistry Lab II
BCMB 340-3	Physical Biochemistry
BIOL 311-3	Cell and Molecular Biology

To be completed at UNBC

Completed at CNC, BIO 201

**400 Level**

BCMB 404-3	Proteins and Enzymology
<i>Four of:</i>	
BCMB 401-3	Basic Science of Oncology
BCMB 402-3	Macromolecular Structure
BCMB 403-3	Advanced Nucleic Acids
BCMB 405-3	Special Topics in Biochemistry
BIOL 312-3	Molecular Cell Physiology
BIOL 323-3	Evolutionary Biology
BIOL 423-3	Molecular Evolution and Ecology
BIOL 425-3	Applied Genetics and Biotechnology

To be completed at UNBC

**Subject Requirements**

Twelve additional credit hours chosen from the following, of which at least 6 credit hours must be at the 300 or 400 level:

Any 200 level or above BCMB, BIOL or CHEM courses

CPSC 450-3	Bioinformatics
HHSC 305-3	Human Physiology I
HHSC 306-3	Human Physiology II
PSYC 317-3	Psychobiology
PSYC 318-3	Sensation and Perception
PSYC 419-3	Neuropsychology

Note: NRES 430-6 can count towards this requirement with permission of the Biology Program Chair.

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.  
\*\*3 credit hours can be completed, CNC PSYC 209

**Elective and Academic Breadth Requirement**

Elective credit hours as necessary to ensure completion of 127 credit hours, including any additional credit hours necessary to meet the Academic Breadth requirement of the University (See Academic Regulation 15).

Note: No more than 3 credit hours of continuing education courses may be used towards the BCMB major.

<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

<sup>3</sup> Waive UNBC BCMB 255-2 if at CNC BIO 202 is completed with a grade of a UNBC C or better.