

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

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

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 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

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 Biology	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	BIOL 1115	General Biology I	BIOL 103-3 & BIOL 123-1
	BIOL 1215	General Biology II	BIOL 104-3 & BIOL 124-1
	BIOL 2315	Biochemistry	CHEM 204-3 & BCMB 2XX-1 <sup>2</sup>
	BIOL 2330	Introduction to Genetics	BIOL 210-3
	BIOL 2380	Introduction to Ecology	BIOL 201-3
	BIOL 2415	Cell Biology	BIOL 2XX-3 <sup>2</sup>
	CHEM 1120 <sup>3</sup>	General Chemistry I	CHEM 1XX-3 <sup>3</sup>
	CHEM 1220 <sup>3</sup>	General Chemistry II	CHEM 1XX-3 <sup>3</sup>
	CHEM 2316	Organic Chemistry I	CHEM 201-3 & CHEM 250-1
CHEM 2416	Organic Chemistry II	CHEM 203-3 & CHEM 251-1	
One of	ENGL 1123	Introduction to Academic Writing	ENGL 170-3
	ENGL 1127	Essay Writing and Short Prose Selections	ENGL 170-3 or ENGL 1XX-3
	ENGL 1128	Short Prose Selections and Composition	ENGL 170-3 or ENGL 1XX-3
One of	ENGL 1129	Modern Novel, Poetry, and Drama	ENGL 100-3
	ENGL 1130	Modern Novel, Poetry, and Film	ENGL 1XX-3
One of <sup>4</sup> or or or	MATH 1171	Calculus I	MATH 100-3
	MATH 1173 & MATH 1183	Calculus I with Computer Explorations Computer Explorations for Calculus I	MATH 100-3
	MATH 1153 & MATH 1253	Introduction to Calculus I (Part I) Introduction to Calculus I (Part II)	MATH 1XX-3 MATH 1XX-3
	MATH 1174	Calculus I - Economic and Business Applications	MATH 100-3

One of <sup>4</sup> or	MATH 1271 MATH 1273 & MATH 1283	Calculus II Calculus II with Computer Explorations Computer Explorations for Calculus II	}	MATH 101-3 MATH 101-3
or	MATH 1274	Calculus II with Economic and Business Applications		MATH 1XX-3
One of	PHYS 1101 PHYS 1125	Physics I for Life Sciences Physics I with Calculus		PHYS 1XX-4 PHYS 110-4
Two of	BIOL 2260 BIOL 2340 BIOL 2350 <sup>5</sup> BIOL 2370 BIOL 2430 BIOL 2440 BIOL 2450 BIOL 2470 BIOL 2480 CHEM 2222 CHEM 2250 PHYS 1118 PHYS 1225	Introduction to Plant & Animal Physiology Vascular Botany Comparative Vertebrate Anatomy Microbiology I Molecular Genetics Botany Nonvascular Plants & Fungi Invertebrate Biology Microbiology II Ecology II: Population Ecology Analytical Chemistry Physical Chemistry for the Life Sciences Introductory Physics Physics II with Calculus		BIOL 2XX-3 BIOL 204-3 BIOL 2XX-3 <sup>5</sup> BIOL 205-3 BIOL 2XX-3 BIOL 2XX-3 BIOL 202-3 BIOL 2XX-3 BIOL 2XX-3 CHEM 210-3 CHEM 2XX-3 PHYS 115-4 PHYS 111-4

Two of First-or second-year arts other than ENGL (excluding MATH and laboratory-based science courses)

<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) Students will need to choose coursework appropriately so as not to receive duplicate Transfer Credit.

<sup>2</sup> LANG BIOL 2315 & LANG BIOL 2415 = UNBC CHEM 204-3 & UNBC BCMB 2XX-1 & UNBC BIOL 311-3. Biology & BCMB Majors only

<sup>3</sup> LANG CHEM 1120 & LANG CHEM 1220 = UNBC CHEM 100-3 & CHEM 101-3 & CHEM 120-1 & CHEM 121-1. Students must take both classes as Langara to receive credit at UNBC.

<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

<sup>5</sup> Biology & NRM Wildlife-Fisheries majors will have one of UNBC BIOL 307 or UNBC BIOL 308 waived.

Note: Above based on the Langara 2020 website.

### Recommended Courses to take:

LANG Courses	LANG Course Name	UNBC Equivalence <sup>1</sup>
BIOL 2320	Conservation Biology	BIOL 411-3
BIOL 2330	Genetics	BIOL 210-3
BIOL 2340	Vascular Botany	BIOL 204-3
BIOL 2350 <sup>2</sup>	Ichthyology and Herpetology	BIOL 307-3
BIOL 2350 <sup>2</sup>	Ornithology and Mammalogy	BIOL 308-3
BIOL 2370	Microbiology	BIOL 203-3
BIOL 2380	Introduction to Ecology	BIOL 201-3
ENGL 1128	Short Prose Selections and Composition	ENGL 170-3
MATH 1171	Calculus I	MATH 100-3
MATH 1271	Calculus II	MATH 101-3
PHYS 1125	Physics I with Calculus	PHYS 110-4
PHYS 1225	Physics II with Calculus	PHYS 111-4
STAT 1123 or STAT 1124 or STAT 1181 or STAT 3222 or STAT 3223	Basic Statistics	STAT 240-3

<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) Students will need to choose coursework appropriately so as not to receive duplicate Transfer Credit.

<sup>2</sup> Biology & NRM Wildlife-Fisheries majors will have one of UNBC BIOL 307 or 308 waived.

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

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

**LANG Equivalence<sup>1</sup>**

The major in Biology requires students to take at least 65 credit Hours of biology-oriented courses, of which 42 credit hours must be at the 300- or 400- level. Note: NRES 430-6 can count as up to 6 credit hours toward this requirement (with permission of the Ecosystem Science and Management Program Chair).

The minimum requirement for the completion of a Bachelor of Science with a major in Biology is 125 credit hours.

In order to increase the breadth and utility of their degree, and To demonstrate an interest in a particular biological sub-discipline, students have the option of choosing to complete a maximum of one Area of Specialization during their degree, chosen from the following list:

1. Field Biology and Natural History
2. Applied Ecology
3. Ecology and Evolution
4. Zoology
5. Botany and Mycology
6. Cell Biology and Genetics

**Program Requirements**

**Lower-Division Requirements**

**100 Level**

BIOL 103-3	Introductory Biology I	}	✓ Completed at LANG, BIOL 1115
BIOL 123-1	Introductory Biology I Laboratory		
BIOL 104-3	Introductory Biology II	}	✓ Completed at LANG, BIOL 1215
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 II		
NRES 100-3	Communications in Natural Resources and Environmental Studies		- Can be completed at LANG, ENGL 1128
or ENGL 170-3	Writing and Communication Skills		
MATH 152-3	Calculus for Non-majors	}	- Can be completed at LANG, MATH 1171 & LANG, MATH 1271
or MATH 100-3	Calculus I		
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 II	}	- Can be completed at LANG, PHYS 1225
or PHYS 111-4	Introductory Physics II: Waves & Electricity		
*Recommended: MATH 101-3 Calculus II			- Can be completed at LANG, MATH 1171 & LANG, MATH 1271

UNBC Biology major Calendar requirements continued:

Students who are interested in pursuing professional programs should contact the program advisor regarding the correct course sequences required for individual programs.

**200 Level**

BIOL 201-3	Ecology
BIOL 202-3	Invertebrate Zoology
BIOL 203-3	Microbiology
BIOL 204-3	Plant Biology
BIOL 210-3	Genetics
CHEM 201-3	Organic Chemistry I
CHEM 203-3	Organic Chemistry II
CHEM 204-3	Introductory Biochemistry
STAT 240-3	Basic Statistics

- Can be completed at LANG, BIOL 2380
- Can be completed at LANG, BIOL 2450
- Can be completed at LANG, BIOL 2370 & LANG, BIOL 2470
- Can be completed at LANG, BIOL 2340
- Can be completed at LANG, BIOL 2330
- ✓ Completed at LANG, CHEM 2316
- ✓ Completed at LANG, CHEM 2416
- ✓ Completed at LANG, BIOL 2315 & LANG, BIOL 2415
- Can be completed at LANG, STAT 1123 or STAT 1124 or STAT 1181 or STAT 3222 or STAT 3223

Students must also take 6 additional credit hours of courses at the 200 level or above. Students are encouraged to explore a diversity of courses during their undergraduate biology education. While biology content is not specifically required, biology students may find relevant courses among the following prefixes: ANTH, BCMB, CHEM, ENPL, ENSC, ENVS, FNST, FSTY, GEOG, HHSC, INTS, NOLS, NREM, NORS, ORTM, PHIL, PHYS, POLS, PSYC, and STAT.

It is recommended that students consult with a Student Advisor in terms of their interests and the content of various courses.

\* 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.

**Upper-Division Requirement**

**300 Level**

BIOL 311-3	Cell and Molecular Biology
BIOL 323-3	Evolutionary Biology
BIOL 325-3	Ecological Analyses
One of the following:	
BIOL 304-3	Plants, Society and the Environment
BIOL 321-3	Animal Physiology

To be completed at UNBC

Two of the following:

BIOL 301-3	Systematic Botany
BIOL 307-3	Ichthyology and Herpetology
BIOL 308-3	Ornithology and Mammalogy
BIOL 318-3	Fungi and Lichens

- Can be completed at LANG, BIOL 2350<sup>2</sup>

To be completed at UNBC

**400 Level**

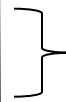
BIOL 410-3	Population and Community Ecology
BIOL 411-3	Conservation Biology

- Can be completed at LANG, BIOL 2320

UNBC Biology major Calendar requirements continued:

One of the following:

- BIOL 404-3 Plant Ecology
- BIOL 406-3 Fish Ecology
- BIOL 412-3 Wildlife Ecology



To be completed at UNBC

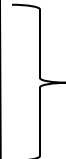
**Subject Requirements**

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

Any 300 or 400 level BIOL courses

ENSC 406-3 Environmental Modelling

FSTY 307-3 Disturbance Ecology and Forest Health



\* 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.

**Additional Requirement**

At least one course with Social Sciences content must be taken from the following list:

BIOL 304, BIOL 350, BIOL 420, or BIOL 421 (these may also count as Subject Requirements);

or any course with one of the following prefixes:

ANTH, COMM, ECON, EDUC, ENPL, ENVS, FNST, INTS, NORS, ORTM, POLS, PSYC



\* 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.

**Elective Requirement**

Elective credit hours must be taken as necessary to ensure completion of a minimum of 126 credit hours.

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

<sup>2</sup> Biology & NRM Wildlife-Fisheries majors will have one of UNBC BIOL 307 or 308 waived