



**Report from North Island College
Biology Articulation Committee Meeting, May 9-10, 2023
UBC-Okanagan, Kelowna**

Articulation Representative: Aisling Brady
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Course # (credits)	Course Name	Text(s)	Projected Enrolment	Hours (/week)	Pre-requisites	Notes	Course Instructor
College Prep Courses (Provincial Level)							
BIO 060 (3)	Concepts in Biology I	Molnar & Gair. <u>Concepts of Biology</u> , 1 st Cdn. ed. OpenStax 2015 (Open Source via BC Campus)	144	3 lec/3 lab	English 11	Dual listed with BIO 110. Fulfills prereq for BIO 102/103 & 160/161	A. Brady G. Harrison M. Jones S. Milligan A. Stroeder
University Transfer (UT) Courses							
BIO 110 (3)	Concepts in Biology I	Molnar & Gair. <u>Concepts of Biology</u> , 1 st Cdn. ed. OpenStax 2015 (Open Source via BC Campus)	144	3 lec/3 lab	English 11	Non-Majors. Dual listed with BIO 060. Fulfills prereq for BIO 102/103 & 160/161	A. Brady G. Harrison M. Jones S. Milligan A. Stroeder
BIO 111 (3)	Concepts in Biology II	Fowler <i>et al.</i> , <u>Concepts of Biology</u> . OpenStax 2018 (Open Source via BC Campus).	35	3 lec/3 lab	English 12	Non-Majors	A. Brady G. Harrison A. Stroeder
BIO 113 (3)	Introduction to the Marine Environment	No text, all readings provided	16	3 lec	C in English 11	Non-Majors	A. Stroeder (offered FA22)

BIO 102 (3)	Principles of Modern Biology	Reece, <i>et al.</i> , <u>Campbell Biology</u> , 3 rd Cdn ed., Pearson, 2021.	64	3 lec/3 lab	C in Biology 11/12; C in Chemistry 11	Majors	A. Brady G. Harrison M. Jones S. Milligan A. Stroeder
BIO 103 (3)	Principles of Modern Biology	Reece, <i>et al.</i> , <u>Campbell Biology</u> , 3 rd Cdn ed., Pearson, 2021.	64	3 lec/3 lab	C in Biology 11/12; C in Chemistry 11	Majors	A. Brady G. Harrison M. Jones S. Milligan A. Stroeder
BIO 160 (3)	Human Anatomy and Physiology I	Saladin, <u>Anatomy and Physiology: The Unity of Form and Function</u> , 9 th ed., McGraw-Hill, 2021.	50 (50% of precovid enrollment)	3 lec/3 lab	C+ Biology 12 & Chemistry 11	BSc. Nursing	A. Brady G. Harrison M. Jones S. Milligan A. Stroeder
BIO 161 (3)	Human Anatomy and Physiology II	same as BIO 160	40	3 lec/3 lab	C+ Biology 12 & Chemistry 11	BSc. Nursing	A. Brady G. Harrison M. Jones S. Milligan A. Stroeder
BIO 170 (3)	Ethnobotany	Pojar & McKinnon, <u>Plants of Coastal British Columbia</u> .	16	3 lec/3 lab	English 12	Non-majors last offered Summer 2014	M. Jones (not offered)
BIO 200 (3)	Cell Biology	Hardin & Bertoni, <u>Becker's World of the Cell</u> , 10 th ed., Pearson, 2021.	16	3 lec/3 lab	BIO 102/103; CHEM 110/111	Majors	A. Brady
BIO 201 (3)	Biochemistry	Nelson & Cox, <u>Lehninger's Principles of Biochemistry</u> , Macmillan, 2021	10	3 lec/3 tutorial	BIO 102/103; CHEM 200 (organic) may be taken concurrently	Majors	S. Milligan
BIO 203 (3)	Principles of Genetics	Pierce, B. <u>Genetics: A Conceptual Approach</u> , 7 th ed., Macmillan, 2020, bundled with Achieve.	16	3 lec/3 lab	BIO 102/103; CHEM 110/111	Majors	A. Brady
BIO 211 (3)	Invertebrate Zoology	Pechenik, J. <u>Biology of the Invertebrates</u> , 7 th ed., McGraw Hill, 2015.	16	3 lec/3 lab	BIO 102/103 or BIO 110/111	Majors	A. Brady (offered WI23)
BIO 215 (3)	Microbiology	Prescott, Harley and Klein, <u>Microbiology</u> , 11th ed., McGraw Hill, 2020.	16	3 lec/3 lab	BIO 102/103 or BIO 160/161 or BIO 110/111	Majors	S. Milligan (not offered WI23, will run WI24)

BIO 230 (3)	Ecology	Relyea, R. <u>Ecology- The Economy of Nature</u> 9th ed. 2021	16	3 lec/3 lab	BIO 102/103	Majors	G. Harrison A. Stroeder
BIO 250 (3)	Directed Independent Studies in Biology	N/A	5	N/A	BIO 102/103 or BIO 110/111; CHEM 110/111; STA 115		various
BIO 260 (3)	Pathobiology I	Hannon & Porth, <u>Porth Pathophysiology</u> , 2 nd Cdn Edition, Woltker's Kluwer, 2017	16	3 lec	C in BIO 160/161	To be included in Year 3 of Island Pre-Health Program (25/26)	A. Brady (not offered)
BIO 261 (3)	Pathobiology II	same as BIO 260 plus Foster <i>et al.</i> , <u>Microbiology the Human Experience</u> , Norton, 2018.	16	3 lec	C in BIO 260	as above	A. Brady (not offered)
BIO 301 (3) *new	General Biochemistry	Nelson & Cox, <u>Lehninger's Principles of Biochemistry</u> , Macmillan, 2021	16	3 lec/3 lab	C in BIO 200, BIO 201, and CHE 201	To be included in Year 3 of Island Pre-Health Program (25/26)	TBA
BIO 330 (3) *new	Introduction to Indigenous and Pharmaceutical Medicines	Ritter et al., <u>Rang & Dale's Pharmacology</u> , Elsevier, 2020	16	3 lec/3 lab	C in BIO 200 and BIO 260 Co-requisite of BIO 261	To be included in Year 3 of Island Pre-Health Program (25/26) Co-taught with Indigenous Medicine Knowledge Holder	TBA

Island Pre-Health Science Courses							
IPH 101 (1.5) *new	Island Pre-Health I: Intro to Health Science	Thompson, <u>Health and Health Care Delivery in Canada</u> , Elsevier, 2019	16	1.5 lec	Admission to IPH Program	To be included in Year 1 of Island Pre-Health Program (23/24);	TBA
IPH 102 (1.5) *new	Island Pre-Health II: Regional Issues in Health Science	Thompson, <u>Health and Health Care Delivery in Canada</u> , Elsevier, 2019	16	1.5 lec	Admission to IPH Program	To be included in Year 1 of Island Pre-Health Program (23/24);	TBA
IPH 201 (1.5) *new	Island Pre-Health III: Social Justice in Health Science	Thompson, <u>Health and Health Care Delivery in Canada</u> , Elsevier, 2019	16	1.5 lec	Admission to IPH Program	To be included in Year 2 of Island Pre-Health Program (24/25);	TBA
IPH 202 (1.5) *new	Island Pre-Health IV: Careers & Communication in Health Science	Thompson, <u>Health and Health Care Delivery in Canada</u> , Elsevier, 2019	16	1.5 lec	Admission to IPH Program	To be included in Year 2 of Island Pre-Health Program (24/25);	TBA
IPH 310 (3) *new	Epidemiology and Population Health	Celentano & Szklo, <u>Gordis Epidemiology</u> , 6 th Edition, Elsevier, 2020	16	3 lec / 3 tutorial	C in STA 115 Priority seating for IPH Program student	To be included in Year 3 of Island Pre-Health Program (25/26)	TBA
IPH 350 (3) *new	Island Pre-Health Applied Research	No text	16	3 other	Admission to the Advanced Diploma in Island Pre-Health Science. C in PSY 204	To be included in Year 3 of Island Pre-Health Program (25/26)	IPH Program Coordinator

UPDATES & NOTES

- **New Program Launch:** Island Pre-Health Science. 3-year program (full time), students gain Associate of Science degree and Advanced Diploma in Island Pre-Health Science. Students will have all credits, pre-requisite courses and admission requirements for professional programs: medicine, dentistry, pharmacy, chiropractor, optometry, accelerated nursing (UBC), veterinary medicine; or transfer and complete BSc in Biology, Life Science, Health Science, or other related discipline. Block transfer agreements are in development; the first agreement has been made with TRU-Open to complete Bachelor of Health Science (without having to move away from the Comox Valley). We are actively looking to increase the number of block transfer agreements. It is a cohort program, 16 or 32 students (based on lab size limits). Based off Selkirk's Rural Pre-Med program. [Link](#).
Program Coordinator: Aisling Brady.
- **Enrolment Patterns:** Overall the enrollment in STEM at NIC has been lower than in the past (pre-Covid; steady decline over last 10 years). As a result of Covid, many of our 'core' courses went online (ABE Biology, Bio160/161 – Anatomy & Physiology) and did not return to F2F in the Campbell River and Port Alberni campuses or were removed (Port Alberni lost majors biology). There is a correlation between the loss of F2F lecture sections in PA and CR being replaced with online lectures and decreased enrolments. Our Bio 160/161 enrolments are 50% of what they were pre-covid. Administration has shared that ABE enrolment is down 30%, which can be expected when ABE Biology is offered only asynchronously. As a result, there are fewer students feeding into our University Transfer courses.
- **Delivery Methods**
 - **2022/2023:** Majors biology courses (1st and 2nd year) fully in person; Anatomy & Physiology had multiple delivery methods (F2F or digital synchronous lecture; in person lab or online lab); ABE/upgrading and non-majors (Bio060/110) had a F2F lecture section at our Comox Valley Campus with in-person labs, but other campuses only had an asynchronous lecture with 3 condensed weekend labs in person.
 - **2023/2024:** Majors biology courses (1st and 2nd year) fully in person; Anatomy & Physiology will have either F2F or digital asynchronous lecture but labs will only be F2F; ABE/upgrading and non-majors (Bio060/110) will have F2F lecture sections at Comox Valley and Campbell River Campuses with in-person labs, there will be a digital asynchronous lecture section for fall and winter semesters with 3 condensed weekend labs F2F, and a condensed spring semester offering (7 weeks) with F2F lecture and labs in Comox Valley.
- **Bio203 Genetics:** Removing CHE 110/111 (first year chemistry) pre-requisite to improve enrolment. Will keep the chemistry pre-requisite for 2nd year Cell Biology (BIO 200).
- **Renovations:** land has been cleared for new Housing Commons at the Comox Valley campus – anticipated completion for Fall 2025; the sciences labs are looking at much needed renovations at the Comox Valley campus – budget TBA.
- **Program Review:** we are in the third year of program review. The college has begun the Quality Assurance Process Audit that will run for 12 months (April 1, 2023 – March 31, 2024).

FACULTY and STAFF

Name and credentials	Role/courses instructed	Phone	email
FACULTY			
Aisling Brady, PhD Biology	Biology Faculty – Regular Comox Valley Campus	250-334-5047	aisling.brady@nic.bc.ca
Georgie Harrison, MSc Biology	Biology Faculty – Regular Comox Valley Campus	250-334-5000 x4215	georgie.harrison@nic.bc.ca
Michele Jones, MSc Botany (retiring in August 2023 – replacement TBA)	Biology Faculty – Regular Comox Valley Campus	250-334-5043	michele.jones@nic.bc.ca
Sandra Milligan, MSc Neuroscience	Biology Faculty – Regular Campbell River Campus Comox Valley Campus	250-923-9759	sandra.milligan@nic.bc.ca
Amber Stroeder, MSc Marine Science	Biology Faculty – Sessional All campuses	250-724-8718	amber.stroeder@nic.bc.ca
STAFF			
Gail Bates, BSc (retiring June 2023 – replacement TBA)	Lab Technician Campbell River Campus	250-923-9747	gail.bates@nic.bc.ca
Garnet Martens, MSc Biology	Senior Lab Technician Comox Valley Campus	250-334-5049	garnet.martens@nic.bc.ca
Snehal Warne, BSc Pharmacy	Lab Technician Port Alberni Campus	250-724-8719	snehal.warne@nic.bc.ca

Biology is in the Department of Math/Science in the Faculty of Arts, Science and Management

Chair of Math/Sciences – Alexandra Blair

Dean – Dr. Neil Cruickshank

Associate Dean – Ali Mayboudi