

DEPARTMENT OF ACADEMIC UPGRADING

COURSE OUTLINE – Winter 2025

BI0130 (A3): Biology Grade 12 Equivalent – 5 (5-0-2) 105 Hours for 15 Weeks

Northwestern Polytechnic acknowledges that our campuses are located on Treaty 8 territory, the ancestral and present-day home to many diverse First Nations, Metis, and Inuit people. We are grateful to work, live and learn on the traditional territory of Duncan's First Nation, Horse Lake First Nation and Sturgeon Lake Cree Nation, who are the original caretakers of this land.

We acknowledge the history of this land and we are thankful for the opportunity to walk together in friendship, where we will encourage and promote positive change for present and future generations.

INSTRUCTOR: Maiya Sears
OFFICE: C405

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OFFICE HOURS: As posted on office door or by appointment

I try to respond to all emails sent on business days (Mon-Fri) within a 24-hour period. If your email has gone unanswered for over 48 hours, please send it again.

CALENDAR DESCRIPTION: The concepts in this course include nervous and endocrine systems; human reproduction and development; cell division, genetics, and molecular biology; populations and community dynamics.

PREREQUISITE(S): Complete all of the following:

- BI0120 (Biology 20)
- EN0120 (English 20-1 or 20-2)
- MA0110 (Math 10C) or MA0123 (Math 20-3)
- A student may register in BI0130 if the student has achieved a mark of 60% or better in Alberta Education Biology 20 within the previous four years or permission of the instructor.

REQUIRED MATERIALS: Inquiry into Biology–McGraw–Hill Ryerson. You must also print the lab assignments, which will be available on myClass (D2L).

DELIVERY MODE(S):

- On-campus (attend on-campus, in-person) – This type of course will be delivered on campus in a specific location which will be indicated on the student timetable. Students are expected to fully attend in person.
- On-campus, in-person classroom instruction with laboratory components. Materials will be delivered in a lecture-style format with practice questions incorporated into presentations when possible. Use of D2L is required.

LEARNING OUTCOMES: As stated by Alberta Education, upon successful completion of this

course the student will be able to:

- Explain how the nervous system controls physiological processes
- Explain how the endocrine system contributes to homeostasis
- Explain how survival of the human species is ensured through reproduction
- Explain how human reproduction is regulated by chemical control systems
- Explain how cell differentiation and development in the human organism are regulated by a combination of genetic, endocrine and environmental factors.
- Describe the processes of mitosis and meiosis
- Explain the basic rules and processes associated with the transmission of genetic characteristics
- Explain classical genetics at the molecular level
- Describe a community as a composite of populations in which individuals contribute to a gene pool that can change over time
- Explain the interaction of individuals in a population with one another and with members of other populations and explain, in quantitative terms, the change in populations over time
- Lab Skill objectives (focus on scientific inquiry): Initiate, plan, perform, record, analyze, interpret, communicate and work in a team

TRANSFERABILITY:

Please consult the Alberta Transfer Guide for more information. You may check the transferability of this course at the Alberta Transfer Guide main page <http://www.transferalberta.alberta.ca>.

** For courses with alpha (letter) grading, a grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. **Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability.**

EVALUATIONS: Final grades will be assigned based on the following components.

Labs, Assignments, Presentations	20%
Quizzes	4%
Unit 1 Exam	13%
Midterm	25%
Unit 3 Exam	13%
Final	25%

Examinations: All tests and exams MUST be written at the scheduled times. Students will not be permitted to sit the exam if they are more than 30 minutes late to the exam period. Additionally, students will not be permitted to leave the exam until 30 minutes have passed if they complete the exam early. A missed test (exam) will result in a score of ZERO on that test (exam). To defer an exam due to illness, you will require a medical note. The final exam is 3 hours long and is scheduled by the registrars' office during NWP Exam weeks.

Quizzes: Quizzes will be administered online and open book; they will close a week after they open. No opportunity will be provided for missed quizzes and thus a missed quiz will result in an automatic zero.

Labs, assignments, and presentations: Lab assignments are due IN LAB a week after the lab period in which they occur. Late assignment submissions will be allowed for up to 2 days after the due date, with a 20% penalty applied per day the assignment is late. The late penalty will be applied as soon as the lab period is over (i.e. if the lab ends at 9:50 am, any assignments submitted after that time will be considered late) or the deadline in myClass has passed (for other take home assignments). Late assignments submitted by email should include all pages together in PDF format. If you are expecting you will not be able to submit an assignment within the accepted time frame, you must email the instructor with an appropriate reason why an extension should be granted and a proposed time frame for the extension. Any extensions are granted at the discretion of the instructor. The lab and exam

schedule for each section can be found on myClass. It is the student's responsibility to keep track of lab, exam, and assignment deadlines.

GRADING CRITERIA:

Please note that most institutions will not accept your course for transfer credit **IF** your grade is **less than C-**.

Alpha Grade	4-point Equivalent	Percentage Guidelines	Alpha Grade	4-point Equivalent	Percentage Guidelines
A+	4.0	95-100	C+	2.3	67-69
A	4.0	85-94	C	2.0	63-66
A-	3.7	80-84	C-	1.7	60-62
B+	3.3	77-79	D+	1.3	55-59
B	3.0	73-76	D	1.0	50-54
B-	2.7	70-72	F	0.0	00-49

COURSE SCHEDULE/TENTATIVE TIMELINE: Labs will be held every week, following each lab section's respective schedule. Please check the Lab Information page in myClass for your lab schedule. Quizzes will be administered online and open book, with deadlines found on myClass and communicated in class. Unit tests and the midterm exam will be held during Friday lab periods to allow sufficient time for completion. All dates are tentative.

Unit 1 Exam	January 31
STI Presentation (in lab)	February 7 and 10
Midterm (covers Units 1&2)	February 14
<i>Winter Break</i>	February 17-21
Unit 3 Exam	March 28
Final Exam (covers Units 3&4)	April 14-23

STUDENT RESPONSIBILITIES: Refer to Northwestern Polytechnic's Policy on Student Rights and Responsibilities at

<https://www.nwpolytech.ca/about/administration/policies/fetch.php?ID=69>.

Students are expected to participate fully in achieving their educational goals. This includes:

Attendance: Students are expected to attend class regularly. To avoid disrupting other students and the instructor, please arrive on time and remain in class until the end of the class period.

If you are late for a lab, you might not be permitted to do the lab as important safety concerns are addressed at the beginning of each lab period. The lab is certified as a Level 2 biohazard facility and the regulations that apply will be given to you during your first lab. If you miss a lab, you will NOT have the opportunity for a make-up lab. You will automatically receive a grade of ZERO for that lab.

Technology: Technology use must remain relevant to the class. Cellphones are to be put away unless they are required for a classroom activity.

Communication: Students are expected to demonstrate respect for their peers, as well as faculty and staff. Any questions, concerns, or appointment requests for the instructor should be communicated by email or at the beginning/end of class. Please include the course name (BI0130) in the subject line for all emails.

Acceptable Use of AI Policy

The use of artificial intelligence (AI) tools, such as ChatGPT, is NOT permitted for exams, quizzes, or laboratory/in-class assignments in this course and doing so will be considered academic misconduct (see policy below). For take-home assignments (i.e., presentations), AI tools may be used to help generate ideas and direct your learning on a given topic. However, students are advised to do their own research and must at least verify the information presented by AI tools. Directly copying answers from AI results is unacceptable and will be considered plagiarism. Students are responsible for ensuring their information is accurate, written in their own words, and cited from a reliable (non-AI) source. Any generative AI tools used must always be cited.

STATEMENT ON ACADEMIC MISCONDUCT:

Academic Misconduct will not be tolerated. For a more precise definition of academic misconduct and its consequences, refer to the Student Rights and Responsibilities policy available at <https://www.nwpolytech.ca/about/administration/policies/index.html>.

**Note: all Academic and Administrative policies are available on the same page.