NORTHWESTERN POLYTECHNIC

DEPARTMENT OF ACADEMIC UPGRADING

COURSE OUTLINE – Fall 2022

BI0120 (A2): Biology Grade 11 Equivalent – 5 (4-0-2) 90 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: Nicoletta Harabor **PHONE:** 780-539-2794
OFFICE: J222 **E-MAIL:** NHarabor@nwpolytech.ca
OFFICE HOURS: As posted on my office door.

CALENDAR DESCRIPTION: The major concepts in this course include human systems (digestion; respiration; circulation; immune; excretory and motor systems); energy and matter exchange in the biosphere; population change; photosynthesis and cellular respiration.

PREREQUISITE(S)/COREQUISITE: SC0110 (Science 10); EN0110 (English10-1 or 10-2); MA0110 (Math 10C) or MA0113 (Math 10-3). A Student may register in BI0120 if the student has achieved a mark of 60% or better in Alberta Education Science 10 within the previous five years or consent of the instructor

REQUIRED TEXT/RESOURCE MATERIALS: Inquiry into Biology-McGraw-Hill Ryerson. You must also print the lab manual which will be available on D2L.

DELIVERY MODE(S): Classroom instruction and lab. Use of D2L required.

COURSE OBJECTIVES:

Detailed course objectives are found in the course syllabus that will be provided to you.

The course is divided into 4 units:

Unit 1: The Circulatory and Respiratory Systems

Unit 2: Digestive and Excretory Systems

Unit 3: Ecology

Unit 4: Photosynthesis and Cellular Respiration

LEARNING OUTCOMES: As stated by Alberta Education, upon successful completion of this course the student will be able to:

• Explain the constant flow of energy through the biosphere and ecosystems
• Explain the cycling of matter through the biosphere
• Explain the balance of energy and matter exchange in the biosphere, as an open system, and explain how this maintains equilibrium
• Explain that the biosphere is composed of ecosystems, each with distinctive biotic and abiotic characteristics
• Explain the mechanisms involved in the change of populations over time
• Relate photosynthesis to storage of energy in organic compounds
• Explain the role of cellular respiration in releasing potential energy from organic compounds
• Explain how the human digestive and respiratory systems exchange energy and matter with the environment
• Explain the role of the circulatory and defense systems in maintaining an internal equilibrium
• Explain the role of the excretory system in maintaining an internal equilibrium in humans through the exchange of energy and matter with the environment
• Explain the role of the motor system in the function of other body systems

TRANSFERABILITY:

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

** 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:

Unit Tests…….. 30%
Labs, Quizzes, Assignments……15%
Midterm (Cover Units 1&2)……25%
Final (Covers Units 3&4)……30%

All tests and exams MUST be written at the scheduled times. A missed test (exam) will result in a score of ZERO on that test (exam). In order to defer an exam due to illness you will require a medical note. Quizzes will be written in labs; no opportunity will be provided for missed quizzes and thus a missed quiz will result in an automatic 0. The final exam is 3 hours long and is scheduled by the registrars' office during NWP Exam weeks.

GRADING CRITERIA: (The following criteria may be changed to suite the particular course/instructor)

Please note that most universities 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	90-100		C+	2.3	67-69
A	4.0	85-89		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:

Tentative test and exam dates:

Unit Exam 1	October 4
Unit Exam 2	November 1
Midterm	November 7
Unit Exam 3	November 28
Unit Exam 4	December 5
Final Exam	December 14-22

STUDENT RESPONSIBILITIES:

Refer to the NWP Policy on Student Rights and Responsibilities at https://www.nwpolytech.ca/about/administration/policies/fetch.php?ID=69

If you are late for a lab, you might not be permitted to do the lab as important safety concerns are always 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 automatically receive a grade of 0 for that lab.

STATEMENT ON PLAGIARISM AND CHEATING:

Cheating and plagiarism will not be tolerated and there will be penalties. For a more precise definition of plagiarism and its consequences, refer to the Student Conduct section of the NWP Calendar at https://www.nwpolytech.ca/programs/calendar/ or the NWP Policy on Student Misconduct: Plagiarism and Cheating at https://www.nwpolytech.ca/about/administration/policies/index.html

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

Tests and Exams: Use of any electronic communication devices during Tests and Exams is not permitted.