

DEPARTMENT OF KINESIOLOGY AND HEALTH SCIENCES

COURSE OUTLINE – FALL 2024

PE1015 (A2/B2): ESSENTIALS OF HUMAN PHYSIOLOGY 3 credit (3-0-0) UT 45 HRs / 15 WKs

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

INSTRUCTOR: Fabio Minozzo

EMAIL: fminozzo@nwpolytech.ca

OFFICE: K220

OFFICE HOURS: Drop in or by appointment.

Classes:

A2 – Tuesdays and Thursdays – 14:30 – 15:50

B2 – Wednesday and Fridays – 13:00 – 14:20

CALENDAR DESCRIPTION: The main focus of this introductory course is on cellular functions in the human body, with special emphasis on systems that respond and adapt to exercise stress.

DELIVERY MODE(S): Various methodologies will be employed, including lectures, discussions, seminars, assigned readings, in-class activities, and group/ individual work.

This course will be primarily delivered **in class** with some online components.

- For the remote delivery component, students **should have** a computer with a webcam and a reliable internet connection. Technological support is available through helpdesk@nwpolytech.ca
- Students should also bring their laptop or tablet, book, and notebook for the on-site component.

POLICY ON THE RECORDING OF TEACHING ACTIVITIES: Students may not record classroom activities (such as lectures, group activities, 3rd party presentations, etc.) without the instructor's consent. This policy is set to protect students' privacy and reputation, uphold the copyrights of the instructor and other content creators, and facilitate free and open discussion of ideas. The classroom is meant to be a psychologically safe environment where students can explore and think through new and controversial ideas without fear of public repercussions. Recording lectures can undermine this goal. If permission to record an activity is granted, the recorded material can only be used for the student's own private use and is not to be posted online or otherwise distributed. The instructor will notify students in advance when someone has been granted permission to record a classroom activity. Students will also be given the option of being excused from actively participating in recorded activities. In the case of student presentations, the recording student must show proof that the presenting student(s) have agreed to be recorded before the instructor will grant permission.

POLICY ON INSTRUCTIONAL RESOURCES AND MATERIALS: Any course resource/material should be properly used: the content created by your instructor is his/her intellectual property and is provided to you based upon your registration for this class; as such, the material is for your private use only. It is not to be distributed, publicly exhibited, or sold without the permission of the instructor. Third-party materials (such as assigned readings, videos, et cetera) have either been licensed for use in this course or fall under an exception or limitation in Canadian Copyright law. **Note: posting instructional, personal notes or slides before or after classes is at the discretion of your instructor.*

POLICY ON ATTENDANCE: Attendance in this course is MANDATORY. Students are strongly recommended to attend all classes and labs; however, they must attend at least 75% of the lectures and labs. This translates to 21 classes. **If a student misses more than 25% of the course (7 classes), he or she will be debarred from the Final Exam, see Final Examination Policy** In exceptional circumstances, the instructor may allow a student to miss more classes than the minimum, but these issues will be addressed case-by-case.

PREREQUISITE(S)/COREQUISITE: None

REQUIRED TEXT/RESOURCE MATERIALS:

Stanfield, Cindy L. (2017). Principles of Human Physiology. 6th Edition, San Francisco: Pearson.

LEARNING OUTCOMES:

Upon successful completion of this course, the student should be able to:

- Demonstrate an in-depth understanding of the main principles of the energy systems, cell metabolism, and the neuromuscular system;
- Demonstrate an understanding of human physiological behaviour under normal conditions, as well as, to a certain extent, pathologies and stress induced by exercise;
- Demonstrate the capacity to integrate information from different sources (biology, chemistry, and physics) and effectively communicate this verbally and in writing.

COURSE SCHEDULE TENTATIVE TIMELINE:

PE1015 ESSENTIALS OF HUMAN PHYSIOLOGY 2024 SCHEDULE (A2)				PE1015 ESSENTIALS OF HUMAN PHYSIOLOGY 2024 SCHEDULE (B2)			
TUESDAYS	TOPIC	THURSDAYS	TOPIC	WEDNESDAYS	TOPIC	FRIDAYS	TOPIC
3-Sep-24	Course Presentation	5-Sep-24	Introduction to Physiology (1)	4-Sep-24	Course Presentation	6-Sep-24	Introduction to Physiology (1)
10-Sep-24	Introduction to Physiology (1)	12-Sep-24	Cell: Structure and Function (2)	11-Sep-24	Introduction to Physiology (1)	13-Sep-24	Cell: Structure and Function (2)
17-Sep-24	Cell: Structure and Function (2)	19-Sep-24	Cell: Structure and Function (2)	18-Sep-24	Cell: Structure and Function (2)	20-Sep-24	Cell: Structure and Function (2)
24-Sep-24	Cell Metabolism (3)	26-Sep-24	Cell Metabolism (3)	25-Sep-24	Cell Metabolism (3)	27-Sep-24	Cell Metabolism (3)
1-Oct-24	Cell Metabolism (3)	3-Oct-24	Cell Metabolism (3)	2-Oct-24	Cell Metabolism (3)	4-Oct-24	Cell Metabolism (3)
8-Oct-24	Cell Metabolism (3)	10-Oct-24	Cell Metabolism (3)	9-Oct-24	Cell Metabolism (3)	11-Oct-24	Cell Metabolism (3)
15-Oct-24	Endocrine System (6)	17-Oct-24	Endocrine System (6)	16-Oct-24	Endocrine System (6)	18-Oct-24	Endocrine System (6)
22-Oct-24	Review activity	24-Oct-24	TEST I	23-Oct-24	Review activity	25-Oct-24	TEST I
29-Oct-24	Nervous System (7)	31-Oct-24	Nervous System (8)	30-Oct-24	Nervous System (8)	1-Nov-24	Nervous System (8)
5-Nov-24	Nervous System (9)	7-Nov-24	Nervous System (9)	6-Nov-24	Nervous System (9)	8-Nov-24	Nervous System (9)
12-Nov-24	Fall break	14-Nov-24	Fall break	13-Nov-24	Fall break	15-Nov-24	Fall break
19-Nov-24	Muscle Physiology (12)	21-Nov-24	Muscle Physiology (12)	20-Nov-24	Muscle Physiology (12)	22-Nov-24	Muscle Physiology (12)
26-Nov-24	Muscle Physiology (12)	28-Nov-24	Muscle Physiology (12)	27-Nov-24	Muscle Physiology (12)	29-Nov-24	Muscle Physiology (12)
3-Dec-24	Review activity	5-Dec-24	TEST II	4-Dec-24	Review activity	6-Dec-24	TEST II
10-Dec-24	Review activity	12-Dec-24	No classes	11-Dec-24	No classes	13-Dec-24	No classes
17-Dec-24	EXAM PERIOD	19-Dec-24	EXAM PERIOD	18-Dec-24	EXAM PERIOD	20-Dec-24	EXAM PERIOD

* Note: Required readings (e.g., Ch4, Ch5) will be assigned throughout the courses; those are COMPULSORY and for grades.

**Note: All assignments related to the readings will be due on the Monday after the reading week (November 19, 2024)

***Note: Some of these dates may vary to facilitate student learning

EVALUATIONS:

10%	Review activities
10%	Assigned readings and questions
20%	TEST I
25%	TEST II
35%	FINAL EXAM
100%	Total

*Note: The final exam duration will be capped at 2 hours.

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	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

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.alberta.ca>.

**Note 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.*

STUDENT RESPONSIBILITIES: Refer to the Polytechnic Policy on Student Rights and Responsibilities on the NWP website.

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.*