

DEPARTMENT OF KINESIOLOGY AND HEALTH SCIENCES

COURSE OUTLINE – FALL 2022

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 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.

INSTRUCTORS: Fabio Minozzo **PHONE:** 780532058

OFFICE: K219 **EMAIL:** fminozzo@nwpolytech.ca

Lectures:

A2: Mondays from 11:30 to 12:50, and Fridays from 10:00 to 11:20 (J201)

B2: Tuesdays and Thursdays from 11:30 to 12:50 (J203)

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

DELIVERY MODE(S): A variety of methodologies will be employed including lecture, discussion, lab activities, seminars group/ individual work.

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

- For the remote delivery component: students **should have** a computer with a webcam and reliable internet connection. Technological support is available through helpdesk@nwp.ab.ca.
- For the onsite component: students are also recommended to bring their own laptop or tablet besides book and notebook.

POLICY ON THE RECORDING OF TEACHING ACTIVITIES: Students may not record classroom activities (such as lectures, group activities, 3rd party presentations, etc.) without instructor's consent. This policy is set to protect the privacy and reputation of students, to uphold the copyrights of the instructor and other content creators, and to facilitate free and open discussion of ideas. The classroom is meant to be a psychologically safe environment, where students are free to 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. Students will be notified in advance by the instructor 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 discretion of your instructor.*

PREREQUISITE(S)/COREQUISITE: N/A

REQUIRED TEXT/RESOURCE MATERIALS:

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

COURSE OBJECTIVES:

- Understand basic physiological concepts and processes;
- Define basic structure-function relationships that exist within the human body;
- Describe the regulation of various physiological systems that comprise the human body.

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 neurophysiology, muscle; cardiovascular, respiratory and neuroendocrine systems;
- Demonstrate an understanding of and be able to identify how changes in normal physiology lead to disease;
- Demonstrate the capacity to integrate information from different sources (biology, chemistry and physics) and effectively communicate this both verbally and in writing;

COURSE SCHEDULE TENTATIVE TIMELINE:

PE1015 ESSENTIALS OF HUMAN PHYSIOLOGY 2022 SCHEDULE (A2)				PE1015 ESSENTIALS OF HUMAN PHYSIOLOGY 2022 SCHEDULE (B2)			
TUESDAYS	TOPIC	THURSDAYS	TOPIC	MONDAYS	TOPIC	FRIDAYS	TOPIC
30-Aug-22	No Classes	1-Sep-22	Course Presentation	29-Aug-22	No Classes	2-Sep-22	Introduction to Physiology (1)
6-Sep-22	Introduction to Physiology (1)	8-Sep-22	Introduction to Physiology (1)	5-Sep-22	No Classes	9-Sep-22	Cell: Structure and Function (2)
13-Sep-22	Cell: Structure and Function (2)	15-Sep-22	Cell: Structure and Function (2)	12-Sep-22	Cell: Structure and Function (2)	16-Sep-22	Cell: Structure and Function (2)
20-Sep-22	Cell: Structure and Function (2)	22-Sep-22	Cell: Structure and Function (2)	19-Sep-22	Cell: Structure and Function (2)	23-Sep-22	Cell Metabolism (3)
27-Sep-22	Cell Metabolism (3)	29-Sep-22	Cell Metabolism (3)	26-Sep-22	Cell Metabolism (3)	30-Sep-22	No Classes
4-Oct-22	Cell Metabolism (3)	6-Oct-22	Cell Metabolism (3)	3-Oct-22	Cell Metabolism (3)	7-Oct-22	Cell Metabolism (3)
11-Oct-22	FALL BREAK	13-Oct-22	FALL BREAK	10-Oct-22	FALL BREAK	14-Oct-22	FALL BREAK
18-Oct-22	Review / Activity	20-Oct-22	TEST I	17-Oct-22	Review / Activity	21-Oct-22	TEST I
25-Oct-22	Cell Metabolism (3)	27-Oct-22	Cell Membrane Transport (4)	24-Oct-22	Cell Metabolism (3)	28-Oct-22	Cell Membrane Transport (4)
1-Nov-22	Chemical Messengers (5)	3-Nov-22	Endocrine System (6)	31-Oct-22	Chemical Messengers (5)	4-Nov-22	Nerv Sys (7) * Road Endocrine (6)
8-Nov-22	Nervous System (7)	10-Nov-22	Nervous System (7)	7-Nov-22	Nervous System (7)	11-Nov-22	No Classes
15-Nov-22	Nervous System (8)	17-Nov-22	Nervous System (9)	14-Nov-22	Nervous System (8)	18-Nov-22	Nervous System (9)
22-Nov-22	Nervous System (11)	24-Nov-22	Nervous System (11)	21-Nov-22	Nervous System (11)	25-Nov-22	Nervous System (11)
29-Nov-22	Muscle Physiology (12)	1-Dec-22	TEST II	28-Nov-22	Muscle Physiology (12)	2-Dec-22	TEST II
6-Dec-22	Muscle Physiology (12)	8-Dec-22	Muscle Physiology (12)	5-Dec-22	Muscle Physiology (12)	9-Dec-22	Muscle Physiology (12)
13-Dec-22	EXAM PERIOD	15-Dec-22	EXAM PERIOD	12-Dec-22	EXAM PERIOD	16-Dec-22	EXAM PERIOD

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

EVALUATION:

10%	Review / Activity
25%	TEST I
25%	TEST II
40%	FINAL EXAM
100%	Total

Field Code Changed

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

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

STUDENT RESPONSIBILITIES:

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

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 Northwestern Polytechnic Calendar at <https://www.nwpolytech.ca/programs/calendar/> or the Student Rights and Responsibilities policy which can be found at <https://www.nwpolytech.ca/about/administration/policies/index.html>

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

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**