

DEPARTMENT OF KINESIOLOGY AND HEALTH SCIENCES

COURSE OUTLINE – WINTER 2026

PE1030 (A3): Integrative Human Physiology– 3 (3-0-1) UT, 60H, 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: Fabio Minozzo: phone-780-539-2058/email- fminozzo@nwpolytech.ca / office K219

OFFICE HOURS: upon student request

Lectures: Tuesdays and Thursdays 13:00-14:20

Labs: Mondays – L1: 14:30-15:20; L2: 15:30-16:20; Fridays - L3 – 14:30-15:20

CALENDAR DESCRIPTION: The focus of this introductory physiology course is systemic functions in the human body with special emphasis on integration of these functions. Whenever possible, the responses and adaptations to exercise will be used as a foundation upon which the concept of integration will be discussed.

DELIVERY MODE(S): A variety of methodologies will be employed, including lecture, discussion, lab activities, seminars, and group/ individual work. This course will be mostly delivered **in class** (or in the lab) with some online components. Students are recommended to bring their own laptop or tablet besides their textbook and notebook.

POLICY ON THE USE OF ARTIFICIAL INTELLIGENCE (AI): The use of Artificial Intelligence (AI), including Large Language Models (LLMs) and other related technologies, has grown significantly in recent years and is now part of everyday reality. The intent of this policy is not to prohibit their use entirely, but to ensure it is applied appropriately and transparently in accordance with established course guidelines. This policy applies only to this course; other instructors may have different policies, and students should not assume these rules apply elsewhere. When no specific rules are established for a given task, the following defaults will apply: **i. For Assignments, Reports, and Presentations** –AI tools may be used to assist in drafting but may not be used to generate the complete work from a single prompt; AI may be used to refine language, and all prompts must be disclosed. For greater transparency, students may be asked to submit their prompt history and AI outputs as an appendix or additional file. If references are required, students must read and verify them to ensure accuracy and existence; any information generated by AI must be independently verified using credible sources; and students must fully understand the material they submit. The instructor may interview students to assess their understanding, and a demonstrated lack of knowledge will be treated as probable academic misconduct. **ii. For Tests, Exams, and Quizzes** – the use of AI tools, search engines, communication devices, or any feature enabling communication with external entities is strictly prohibited. Once specific rules are set for a task, those rules override these defaults, which will no longer apply. Any breach of the applicable rules will be addressed under the institution's academic misconduct procedures.

**Note: AI-generated content may contain errors or biases. Students are responsible for verifying information and may consult their instructor for guidance on its accuracy, appropriateness, or permitted use.*

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 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 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 lectures and 7 labs. **If a student misses more than 25% of the course (7 lectures or 3 labs), 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 on a case-by-case basis.

PREREQUISITE:

PE1015

REQUIRED TEXT/RESOURCE MATERIALS:

Stanfield, Cindy L. (2017). Principles of Human Physiology, 6th Edition.

LEARNING OUTCOMES:

- Identify and explain the metabolic and physiological determinant of sports and athletic performance
- Explain the basic structure-function relationships that exist within the human body and the regulation of these physiological processes
- Explain the control and integration of cellular and systemic function in responses to the challenges of health and fitness and sport performance with reference to specific systems.

COURSE SCHEDULE-TIMELINE:

PE1030 INTEGRATIVE HUMAN PHYSIOLOGY SCHEDULE (Tentative)						
IN CLASS LECTURES				LABORATORY		
Tuesdays	TOPIC	Thursdays	TOPIC	L1/L2 Mon	L3 Fri	TOPIC
6-Jan-26	Intro to the course	8-Jan-26	Cardiac function (Ch13)	5-Jan-26	9-Jan-26	No labs
13-Jan-26	Cardiac function (Ch13)	15-Jan-26	Cardiac function (Ch13)	12-Jan-26	16-Jan-26	Intro to the labs (L1)
20-Jan-26	Cardiovascular System (Ch14)	22-Jan-26	Cardiovascular System (Ch14)	19-Jan-26	23-Jan-26	Blood Pressure (L2)
27-Jan-26	Cardiovascular System (Ch14)	29-Jan-26	Respiratory System (Ch16)	26-Jan-26	30-Jan-26	Electrocardiogram (L3)
3-Feb-26	Respiratory System (Ch16)	5-Feb-26	Gas Exchange (Ch17)	2-Feb-26	6-Feb-26	Electrocardiogram cont' (L4)
10-Feb-26	Review/ Seminar	12-Feb-26	TEST 1	9-Feb-26	13-Feb-26	Lab review
17-Feb-26	Winter Break	19-Feb-26	Winter Break	16-Feb-26	20-Feb-26	Winter Break
24-Feb-26	Gas Exchange (Ch17)	26-Feb-26	Gas Exchange (Ch17)	23-Feb-26	27-Feb-26	Lab Quiz 1
3-Mar-26	Respiratory System (Ch16)	5-Mar-26	Gas Exchange (Ch17)	2-Mar-26	6-Mar-26	Pulmonary Function (L5)
10-Mar-26	Urinary System (Ch18)	12-Mar-26	Urinary System (Ch18)	9-Mar-26	13-Mar-26	Pulmonary Function cont' (L6)
17-Mar-26	Urinary System (Ch18)	19-Mar-26	Fluid and Electrolyte (Ch19)	16-Mar-26	20-Mar-26	Counter Current Multiplier (L7)
24-Mar-26	Fluid and Electrolyte (Ch19)	26-Mar-26	Fluid and Electrolyte (Ch19)	23-Mar-26	27-Mar-26	Measuring Metabolism (L8)
31-Mar-26	Review/ Seminar	2-Apr-26	TEST 2	30-Mar-26	3-Apr-26	Lab Review / (no labs on Friday)
7-Apr-26	Gastro Intestinal System (Ch20)	9-Apr-26	Gastro Intestinal System (Ch20)	6-Apr-26	10-Apr-26	Lab Quiz 2
14-Apr-26	EXAM PERIOD	16-Apr-26	EXAM PERIOD	13-Apr-26	17-Apr-26	EXAM PERIOD

Assignment 1 Ch15 - Blood - Due date - January 26 @ 8:30 AM

Assignment 2 Ch 09 - Nervous - Due date - February 23 @ 8:30 AM

Assignment 3 Ch 11 - Nervous - Due date - March 09 @ 8:30 AM

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

EVALUATION:

3 Assignments (5% each)	15%
Lab Quiz 1	10%
Lab Quiz 2	10%
Test 1	15%
Test 2	20%
Final Exam	30%

100%

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

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.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**

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.