

**DEPARTMENT OF KINESIOLOGY AND HEALTH SCIENCES**

**COURSE OUTLINE – WINTER 2025**

**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](mailto:fminozzo@nwpolytech.ca) / office K219

**OFFICE HOURS:** upon student request

**Lectures:** Wednesdays and Fridays 13:00-14:20

**Labs:** Mondays – L1: 10:30-11:20 ; L2: 11:30-12:20; L4 15:00-15:50. Thursdays: L3 – 11:30-12:20

**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 RECORDING OF TEACHING ACTIVITIES:** Students may not record classroom activities (such as lectures, group activities, 3<sup>rd</sup> 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 case-by-case.

**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:**

<b>PE1030 INTEGRATIVE HUMAN PHYSIOLOGY SCHEDULE (Tentative)</b>						
<b>IN CLASS LECTURES</b>				<b>LABORATORY</b>		
<b>Wednesday</b>	<b>TOPIC</b>	<b>Friday</b>	<b>TOPIC</b>	<b>Mondays</b>	<b>Thursdays</b>	<b>TOPIC</b>
8-Jan-25	Intro to the course	10-Jan-25	Blood (Ch15) and Cardiac function	6-Jan-25	9-Jan-25	Intro to the labs (L1)
15-Jan-25	Cardiac function (Ch13)	17-Jan-25	Cardiac function (Ch13)	13-Jan-25	16-Jan-25	No labs
22-Jan-25	Cardiac function (Ch13)	24-Jan-25	Cardiovascular System (Ch14)	20-Jan-25	23-Jan-25	Blood Pressure (L2)
29-Jan-25	Cardiovascular System (Ch14)	31-Jan-25	Cardiovascular System (Ch14)	27-Jan-25	30-Jan-25	Electrocardiogram (L3)
5-Feb-25	Respiratory System (Ch16)	7-Feb-25	Respiratory System (Ch16)	3-Feb-25	6-Feb-25	Electrocardiogram cont' (L4)
12-Feb-25	Review/ Seminar	14-Feb-25	<b>TEST 1</b>	10-Feb-25	13-Feb-25	Lab Quiz 1
19-Feb-25	<b>Winter Break</b>	21-Feb-25	<b>Winter Break</b>	17-Feb-25	20-Feb-25	<b>Winter Break</b>
26-Feb-25	Respiratory System (Ch16)	28-Feb-25	Gas Exchange (Ch17)	24-Feb-25	27-Feb-25	Pulmonary Function (L5)
5-Mar-25	Gas Exchange (Ch17)	7-Mar-25	Urinary System (Ch18)	3-Mar-25	6-Mar-25	Pulmonary Function cont' (L6)
12-Mar-25	Urinary System (Ch18)	14-Mar-25	Urinary System (Ch18)	10-Mar-25	13-Mar-25	Measuring Metabolism (L7)
19-Mar-25	Fluid and Electrolyte (Ch19)	21-Mar-25	Fluid and Electrolyte (Ch19)	17-Mar-25	20-Mar-25	Measuring Metabolism cont' (L8)
26-Mar-25	Gastrointestinal System (Ch20)	28-Mar-25	Gastrointestinal System (Ch20)	24-Mar-25	27-Mar-25	Lab Review
2-Apr-25	Review/ Seminar	4-Apr-25	<b>TEST 2</b>	31-Mar-25	3-Apr-25	Lab Quiz 2
9-Apr-25	Endocrine System (Ch21)	11-Apr-25	General Review	7-Apr-25	10-Apr-25	No labs
16-Apr-25	<b>EXAM PERIOD</b>	18-Apr-25	<b>EXAM PERIOD</b>	14-Apr-25	16-Apr-25	<b>EXAM PERIOD</b>

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

**EVALUATION:**

Lab Participation	5%
Lab Quiz 1	10%
Lab Quiz 2	10%
Test 1	20%
Test 2	25%
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.