

DEPARTMENT OF KINESIOLOGY AND HEALTH SCIENCES

COURSE OUTLINE – WINTER 2024

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.

INSTRUCTORS:

- Fabio Minozzo: phone-780-539-2058/email- fminozzo@nwpolytech.ca / office K219
- Alexander Villafranca: phone- 780-539-2971 /email- avillafranca@nwpolytech.ca / office K220

OFFICE HOURS: upon student request

Lectures: Mondays and Wednesdays 14:30-15:50

Labs: L1 – Tuesdays 13:30-14:20; L2 – Thursdays 13:30-14:20; L3 – Fridays 10:00-10:50 (*with Dr Villafranca*)

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 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, 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:

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

**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.