



DEPARTMENT OF PHYSICAL EDUCATION AND KINESIOLOGY

COURSE OUTLINE – WINTER 2020

PE1030 (A3): INTEGRATIVE HUMAN PHYSIOLOGY – 3 (3-0-1) UT, 60H

PRINCIPAL INSTRUCTOR: Fabio Minozzo

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CLASS TIMES:

Lectures A3: Monday & Wednesday, 10:00 – 11:20

Laboratories B3: Thursday, 10:00 – 10:50; Friday, 8:30-9:30

CALENDAR DESCRIPTION: The focus of this introductory physiology course is cellular functions in the human body with special emphasis on control and integration of these functions. Whenever possible, the responses and adaptations to exercise will be used as a foundation upon which the concepts of control and integration will be discussed. Some topics from PE1015, Essentials of Human Physiology, will be revisited to discuss control and integration of cellular and systematic function.

PREREQUISITE(S)/COREQUISITE:

PE1015

REQUIRED TEXT/RESOURCE MATERIALS:

- 1- Stanfield, Cindy L. (2017). Principles of Human Physiology, 6th Edition.
- 2- Lab guidelines (Provided in labs)

DELIVERY MODE(S):

Lecture, problem-solving exercises, case studies, and practical labs.

COURSE OBJECTIVES:

- To provide the student with a knowledge and understanding of the basic concepts of physiology in selected systems of the body.
- To examine the critical systems associated with health, exercise and sport.
- To provide the basic principles of the following systems: neural-endocrine systems, muscular systems, cardiovascular system, respiratory system, digestive systems.

LEARNING OUTCOMES:

Students who successfully complete this course will be able to:

- 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.

CLASS SCHEDULE:

PE1030 INTEGRATIVE HUMAN PHYSIOLOGY SCHEDULE (Tentative)						
IN CLASS LECTURES				LABORATORY		
Mondays	TOPIC	Wednesdays	TOPIC	Thursday	Friday	TOPIC
6-Jan-20	Intro to the course	8-Jan-20	Blood (Ch15)	9-Jan-20	10-Jan-20	Introduction to the labs
13-Jan-20	Cardiac function (Ch13)	15-Jan-20	Cardiac function (Ch13)	16-Jan-20	17-Jan-20	Blood pressure (L1)
20-Jan-20	Cardiovascular System (Ch14)	22-Jan-20	Cardiovascular System (Ch14)	23-Jan-20	24-Jan-20	Electrocardiogram (L2)
27-Jan-20	Respiratory System (Ch16)	29-Jan-20	Respiratory System (Ch16)	30-Jan-20	31-Jan-20	Electrocardiogram cont (L2)
3-Feb-20	Gas Exchange (Ch17)	5-Feb-20	Gas Exchange (Ch17)	6-Feb-20	7-Feb-20	Pulmonary Function (L3)
10-Feb-20	Review/ Seminar	12-Feb-20	TEST 1	13-Feb-20	14-Feb-20	No labs
17-Feb-20	Winter Break	19-Feb-20	Winter Break	20-Feb-20	21-Feb-20	Winter Break
24-Feb-20	Urinary System (Ch18)	26-Feb-20	Fluid and Electrolyte (Ch19)	27-Feb-20	28-Feb-20	Pulmonary Function cont (L3)
2-Mar-20	Fluid and Electrolyte (Ch19)	4-Mar-20	Fluid and Electrolyte (Ch19)	5-Mar-20	6-Mar-20	Measuring Metabolism (L4)
9-Mar-20	Gastrointestinal System (Ch20)	11-Mar-20	Gastrointestinal System (Ch20)	12-Mar-20	13-Mar-20	Measuring Metabolism cont (L4)
16-Mar-20	Endocrine System (Ch21)	18-Mar-20	Endocrine System (Ch21)	19-Mar-20	20-Mar-20	Hypertrophy / Atrophy (L5)
23-Mar-20	Review/ Seminar	25-Mar-20	TEST 2	26-Mar-20	27-Mar-20	No labs
30-Mar-20	Reproductive System (Ch22)	1-Apr-20	Reproductive System (Ch22)	2-Apr-20	3-Apr-20	Hypertrophy / Atrophy (L5)
6-Apr-20	Immune System (Ch23)	8-Apr-20	Immune System (Ch23)	9-Apr-20	10-Apr-20	Inflammation (L6)
13-Apr-20	Exam Review	15-Apr-20	FINAL EXAM TBA	16-Apr-20	17-Apr-20	

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

EVALUATIONS:

Lab Fulfilment	20%
Test 1 – February 12 th , 2020	25%
Test 2 – March 25 th , 2020	25%
Final Exam TBA: April 15-27, 2020	30%

*Note: Lab attendance is MANDATORY, and there will NOT be make-up labs. Six (6) labs are planned to happen: L1 and L6 are worth 2% each, whereas L2, L3, L4, and L5 are worth 4% each.

**Note: Labs are complementary to the course content, and although there will be no specific exams for the labs, lab-related questions will be asked in all the exams.

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

Please note that most universities will not accept your course for transfer credit **IF** your grade is **less than C-**.

Alpha Grade	4-pt equivalent	%	Alpha Grade	4-pt equivalent	%
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

TRANSFERABILITY:

A list of institutions to which this course transfers (For example: UA, UC, UL, AU, GMU, CU, CUC, KUC. Please note that this is a sample and it must be replaced by your specific course transfer)

***Warning:** Although we strive to make the transferability information in this document up-to-date and accurate, **the student has the final responsibility for ensuring the transferability of this course to Alberta Colleges and Universities.** Please consult the Alberta Transfer Guide for more information. You may check to ensure the transferability of this course at Alberta Transfer Guide main page <http://www.transferalberta.ca> or, if you do not want to navigate through few links, at <http://alis.alberta.ca/ps/tsp/ta/tbi/onlineSearch.html?SearchMode=S&step=2>

**** 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:

This is a 3-credit course with 2 classes and 1 lab a week. It is the student’s responsibility to read and understand the required areas of the text. The objective of the lectures is to highlight the major concepts of each topic area and provide examples to facilitate comprehension.

Students are not only encouraged to read other chapters in the text book such as 4, 13, & 14 but also to read other suggested material and text books, in order to gain an appreciation of physiological testing, training methodology, training adaptations and ergogenic aids that impact the acute and chronic adaptations to exercise. Some of these topics will be incorporated in the lectures and labs but are primary topics of other courses.

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 College Calendar at <http://www.gprc.ab.ca/programs/calendar/> or the College Policy on Student Misconduct: Plagiarism and Cheating at <https://www.gprc.ab.ca/about/administration/policies>

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