

PHYSICAL EDUCATION, ATHLETICS & KINESIOLOGY  
Grande Prairie Regional College

PE1030: Integrative Human Physiology [3(3-1)] 60 Hrs. UT

Winter 2008

Instructor: Ray Kardas

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Pre-Requisite: PE1015 (Essentials of Human Physiology)

Class Times: M/W 8:30 – 10:00, D308; Lab 1: T 12:00 – 12:50; Lab 2: F 9:00 – 9:50, J130

**Course 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 systemic function.

*Prerequisites: PE1015*

**Course Objectives:**

- Acquire **knowledge** about the basic **structure-function relationships** that exist within the human body and the **regulation** of these physiological processes.
- To provide content and a rich environment in which to **understand the principles** and mechanisms of human physiology.
- To **establish a foundation** from which the responses to acute and chronic exercise stresses can be studied.

**Required Text:**

Germann, William J., and Stanfield, Cindy L. (2008). Principles of Human Physiology, 3<sup>rd</sup> Ed. San Francisco: Pearson

**Course Layout:**

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.

**Course Evaluation:**

Test #1	February 13	25%
Test #2	March 12	25%
Test #3	April 9	25%
Paper on Reproductive Physiology	Due: last class	10%
LAB Exams	April 1, 4	15%

**Grading System:**

Letter Grade	Grade Point Value	Percentage Range
A+	4.0	94 – 100
A	4.0	89 – 93
A-	3.7	85 – 88
B+	3.3	81 – 84
B	3.0	77 – 80
B-	2.7	72 – 76
C+	2.3	69 – 71
C	2.0	64 – 68
C-	1.7	60 – 63
D+	1.3	55 – 59
D	1.0	50 – 54
F	0.0	Below 50

**Student Responsibilities:**

**Reading** the upcoming topic in the textbook BEFORE each lecture will help students understand and keep pace with the flow of lectures.

**Questions** always arise and it is important for the student to act on them. Ask your questions during class or bring them up at the end of class or send your question(s) via e-mail.

“**Study-buddy**” or study groups are highly recommended. Having someone to discuss the lecture with or review course material has been very helpful to many students.

**Attendance** will not be monitored during the lectures. Students are responsible for all material assigned or presented.

**Lecture Schedule:**

For the most part, we will follow the content, topic areas and sequence as outlined in your text. Not all chapters will be covered or completed with the same depth and the sequencing may be changed.

<b>Chapter</b>	<b>Topic</b>	<b>Lecture Dates</b>	<b>No. of Lectures</b>
12	The Cardiovascular System: Blood	Jan. 7, 9	2
13, 15	The Cardiovascular System: Cardiac Function, Blood	14, 16, 21	3
14	The Cardiovascular System: Blood Vessels, Blood Flow, and Blood Pressure	23, 28, 30	3
5, 6	The Endocrine System	Feb. 4, 6, 11	3
	<b>Test #1</b>	<b>Feb. 14</b>	
	Winter Break	Feb. 19-22	
16	The Respiratory Systems: Pulmonary Ventilation	Feb. 25, 27	2
17	The Respiratory Systems: Gas Exchanges and Regulation of Breathing	Mar. 3, 5, 10	3
	<b>Test #2</b>	<b>Mar. 14</b>	
18	The Urinary System: Renal Function	17, 19	2
19	The Urinary System: Fluid & Electrolyte Balance	24, 26	2
20	The Gastrointestinal System	31	1
24	The Whole Body: Integrated Physiological Responses to Exercise	April 2, 7	2
	<b>Test #3</b>	<b>April 9</b>	