PHYSICAL EDUCATION, ATHLETICS & KINESIOLOGY
Grande Prairie Regional College

PE1020 (First Semester): Essentials of Human Physiology [(3-0]

Fall 2004

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Class Times: Mondays & Wednesdays 9:00 a.m. – 9:50 a.m.
Fridays 8:30 a.m. – 9:20 a.m.

Course Description:
This course is an introduction to the **Essentials of Human Physiology**. The main focus of the course is on systemic functions in the human body with special emphasis on systems that respond and adapt to exercise stress. The majority of the course will focus on the cardiovascular, respiratory, musculoskeletal, nervous, and neuroendocrine systems. A prior knowledge of general cellular function and metabolism (such as obtained in Biology 30) is presupposed.

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/Notes:
Silverthorn DU (2004) Human Physiology: An Integrated Approach, 3rd Edition, Prentice-Hall Inc.

Notes for PE1020 When Instructed
Silverthorn Physiology Website: www.prenhall.com/silverthorn
Students can explore a wealth of dynamic resources that expand the text into a truly interactive learning tool. This site includes quiz material, reviews, answers to the end-of-chapter questions (EOC) and links to other relevant sites.

Course Layout:
The textbook selected for this course is thorough and will be a strong resource for PEDS200 (Exercise Physiology at U of A). 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:

Mid-term Exam #1	October 4	25%
Mid-term Exam #2	November 1	25%
Final Exam	Scheduled during Exam Week	50%

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 and modified. The following is a rough guide to this new course.

Chapter	Topic	Lectures
1-3	Intro and review of atoms, ions, molecules, cells and tissues	Sept. 8, 10
4	Cellular Metabolism	Sept. 13, 15, 17
5	Membrane Dynamics	Sept. 20, 22, 24
6	Communications, Integration & Homeostasis	Sept. 27, 29 & Oct. 1
	Test #1	Oct. 4
7	Endocrine System	Oct. 6, 8, 13, 15
8 & 9	Nervous and Central Nervous System	Oct. 18, 20, 22, 25
11	Autonomic and Somatic Nervous Systems	Oct. 27, 29
	Test # 2	Nov. 1
12	Muscles	Nov. 3, 5, 8, 10
14 & 15	Cardiovascular Physiology, Blood Flow and Blood Pressure	Nov. 15, 17, 19, 22
16 & 24	Blood and Immune System	Nov. 22
17 & 18	Respiratory Physiology	Nov. 24, 26, 29
19 & 26	Kidneys and Fluid and Electrolyte Balance	Dec. 1
21	Digestion	Dec. 3, 6
22	Energy balance, metabolism and growth	Dec. 8