

**Grande Prairie Regional College
Department of Science and Technology**

**PZ 1500 Elementary Physiology I Course Outline – 1st Year Nursing (CBL)
Fall 2003**

PZ 1500 Elementary Physiology I 3(3-0-0)

This is an introductory course in physiology for the health sciences. It is available only to students in the Nursing program.

The first semester of this course covers fundamental concepts in physiology. The second semester of this course follows the topics outlined in the scenarios presented in the CBL Nursing program. Some of the topics covered will require extra reading / study by the students.

Textbook : Saladin, K.S. (2004), Anatomy and Physiology : The unity of form and Function, 3rd ed., WCB / McGraw-Hill, Boston MA
ISBN 0-07-242903-8

Resource Person : Dr. Sean Irwin
office - J223
phone - 539-2860 (w)
- 567 -2226 (h)

Fixed Resource Session : Tuesday / Thursday 13:00 – 14:20, J226
Friday 11:30 - 12:50

Evaluation:	Mid-term exam	20%
	Fall final exam	35%
	Quiz	15%
	Winter final exam.....	<u>30%</u>
	Total	100%

Office Hours : Monday - 10:00 - 11:20 am
Wednesday - 10:00 - 11:20 pm
Friday -10:00 – 11:20 am
Also by appointment

PZ 1500 - Elementary Physiology I - Fall 2003

Week 1 :

Introduction to physiology.: Chapter 1 pg. 17 - 19

- homeostasis
- feedback mechanisms

Enzymes and Metabolism : Chapter 2 pg. 82 – 85

- enzymes and metabolism
- ATP

Week 2:

The Cell : Ch. 3: 107 – 115

- membrane transport

Cellular Respiration - Ch. 26: 996 – 1002

- Carbohydrate metabolism

Week 3:

Cellular Function : Chapter 4: 134 - 145.

- protein synthesis
- DNA replication and the cell cycle

Week 4 and 5:

The Circulatory System : Blood ; Ch. 18.

- functions and properties of blood
- plasma
- blood cell formation
- erythrocytes - anemia
- blood types
- leukocytes
- hemostasis
- C.V. - coagulation disorders

Midterm - Tues. Oct. 14

Week 6:

The immune system : Chapter 21

- the lymphatic system
- innate immunity

Week 7:

The immune system : Chapter 21

- acquired immunity
- disorders of the immune system
- C.V. - allergies

Week 8:

Nervous Tissue : Ch. 12. 444 – 470.

- cells
- electrophysiology of neurons
- synapses
- neural integration

Week 9:

Muscle Tissue : Ch. 11: 408 – 422, 427 - 429.

- muscle tissue
- microscopic anatomy of skeletal muscle
- muscle innervation
- contraction and relaxation
- muscle metabolism

Week 10:

Somatic Reflexes : Ch. 13: 503 - 509.

- Nature of reflexes
- Mechanism

Autonomic Nervous System Ch. 15: 564 – 566, 574 – 578.

- The Autonomic Nervous System
- Autonomic effects on target organs

Fall Final Exam – Thurs. Nov.13