

**ALLIANCE UNIVERSITY COLLEGE / NAZARENE UNIVERSITY COLLEGE****ZOO 169 Human Physiology (3)**

Tentative Course Outline and Information for 2006-2007 Academic year.  
This course teaches basic human physiology.

**PREREQUISITE:** Biology 30, Biology 105, or permission from Department head.

**INSTRUCTOR:** Carol Kroeker, PhD  
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Office Hours :

**COURSE DESCRIPTION**

This course is an introduction to human biology that analyzes the structure and function of systems in our bodies. It leads to an appreciation of how the human body maintains itself and carries out the functions necessary to sustain any organism. This is a course for non-majors that will develop their understanding of the anatomy and physiology of their own species in a zoological and evolutionary context.

**COURSE LEARNING OUTCOMES:**

1. Students will have a basic understanding of human physiology, through a basic overview of each body system.
2. Students will see the relationship between organ systems within the body, i.e., to see how these organ systems function together to maintain body function, and to see how injury or malfunction of one organ system can affect the rest of the body. Students will also gain a basic understanding of some diseases.

**TEXTBOOKS:** 1. **FUNDAMENTALS OF PHYSTIOLOGY - A HUMAN PERSPECTIVE** (2nd ed., 1993) - L. Sherwood

**SUPPLEMENTARY REFERENCES:** Located in Library (Reserve)

**Human Physiology - From Cells to Systems** (2<sup>nd</sup> ed.), L. Sherwood

**Human Anatomy and Physiology** (3<sup>rd</sup> ed.), A.P. Spence and E.B. Mason

**Human Anatomy and Physiology** (7<sup>th</sup> ed.), G.J. Tortora and S.R. Grabowski

**Human Physiology – Functions of the Human Body** , R.M. Durham

**Textbook of Medical Physiology** (7<sup>th</sup> ed.), A.C. Guyton

**Human Physiology** , R. Rhoades and R. Pflanzler

**Human Physiology** (3<sup>rd</sup> ed.), S.I.Fox

## GENERAL INFORMATION

Students are responsible for all material given in the lectures, whether or not it is found in the textbook. Therefore, it is essential that you attend all lecture sessions. Missed exams may be made up only with a valid excuse and written support from a physician or U of C counsellor.

Attendance at the laboratory sessions is **COMPULSORY**. Any labs missed without a valid excuse **CANNOT** be made up. A valid excuse (such as illness, death in the family, etc.) **MUST** be supported by written proof from a physician or an U of C counsellor. Lab coats are not required.

Please refer to the University course calendar for policies on Academic Dishonesty (p. 53-56) and Disability Accomodation (p. 37).

<b>GRADING:</b>	Two midterm exams at 20% each	= 40%
	Final lecture exam	= 40%
	Quizzes, assignments	= 20%
	Total	= 100%

The course consists of 3 hours of lectures a week, as well as a 2-hour lab/tutorial time.

The final lecture examination will be scheduled by the Registrar's office, and will be cumulative (covering material from entire term). Midterm exams will be scheduled during class time (see lecture schedule attached) and will cover only the material in the previous section of the course. Exam format will include multiple choice questions, short answers, and 2-3 long answer questions.

The lab/tutorial portion of the course will consist of lab reports and assignments. Attendance at the labs is MANDATORY.

Further reading of scientific journal papers may be suggested in class for each body system. These may be based on feedback from students (i.e. areas of interest) as well as the latest research being done in these areas.

### **GRADING SCHEME**

Grades will be awarded on the basis of the following percentages:

A	90-100%	C	63-66%
A-	80-89%	C-	60-62%
B+	77-79%	D+	54-59%
B	73-76%	D	50-53%
B-	70-72%	F	Below 50%
C+	67-69%		

Please refer to University calendar for policies on reappraisals and appeal process.

**TENTATIVE LECTURE SCHEDULE**

<b>WEEK OF</b>	<b>TOPIC</b>	<b>TEXTBOOK CHAPTER</b>
Sept 6	Homeostasis / cell	1
13	Cell Physiology	2
20	Membrane and Neuronal Physiology	3
27	Central Nervous System	4
Oct. 4	Sensory Physiology	5
11	<b>Exam I</b> / Special Senses	5
18	Muscle Physiology	6
25	Cardiovascular System	7,8
Nov. 1	Blood and Immunity	9
8	Respiratory System	10
15	<b>Exam II</b> / Digestive System	11
22	Urinary System	13
29	Endocrine System	15
Dec. 6	Reproduction	16
10	Last day of classes	

Exams will test knowledge of body systems covered in lectures and in the textbook. The anatomy and physiology of each body system will be included as well as questions related to disease and malfunction.

Exam I will cover all material up to and including Sensory Physiology (Chapters 1-5). Exam II will cover material from Special Senses up to and including the Respiratory System (Chapter 6-10).

The final exam will cover all material covered in the course lectures (not including lab material). Only writing tools are allowed with you in the exam. A pass on every exam is NOT required to pass the course.

**TENTATIVE LAB/TUTORIAL SCHEDULE****Quiz or Lab Report**

Sept	1	No labs	
	6	Introduction to Lab	
	13	Measurement of Plasma Molecules	
	22	Diffusion, Osmosis, and Tonicity	
	27	The Nerve Impulse, EEG's and Reflexes	Quiz on Diffusion / Osmosis
Oct.	4	General Senses	Nerve assignment due
	11	No Labs	
	18	Special Senses	General Senses lab report due
	25	Exercise and Metabolism	Special Senses lab report due
Nov. due	1	Cardiovascular System	Exercise Lab report
	8	Blood	Cardiovascular assignment due
	15	Respiratory Lab	Blood lab report due
	22	Digestive System	Respiratory lab report due
	29	Urinary System	Digestive quiz
Dec.	8	Lab Final Exam	Urinary lab report due

The purpose of the laboratory exercises and tutorials is to help you to understand the concepts taught in the lecture section and to see these concepts in action. By the end of each laboratory session, you should be able to clearly describe the anatomy and function of the body system studied and be able to apply this knowledge to gain understanding of clinical abnormalities and diseases related to that particular body system.

Lab reports will not be in the classic format (i.e. purpose, methods, etc.), but rather in a question format, with questions related to experimental results achieved in the laboratory. Explanations of the results must be given and conclusions drawn. Questions related to these results may also be explored. Some library or internet research may be required for some questions. You will have one week to research and write up your lab reports. All lab reports will be handed in at the beginning of the lab session (in class).

Lab quizzes will be given in class and ask questions related to experimental procedures and experimental results. You will not be asked to perform procedures for these quizzes.

Each quiz and assignment will be graded out of 20 marks. Marks will not be removed for grammar or spelling (but please do your best to make it legible and sensible!).