douglas college **Course Information**

A. Division: ACADEMIC

Date: June 1988

B. Department: SCIENCE AND MATHEMATICS

New Course: [X]

Revision of Course Information Form: [ ]

Dated: _____

C. BIO 105 (Subject & Course No.) D. HUMAN ANATOMY AND PHYSIOLOGY (Descriptive Title) E. 3 (Semester Credits)

F. Calendar Description:

This course examines the anatomy and physiology of humans. The skeletal, muscular, circulatory, respiratory, nervous, digestive, excretory and endocrine systems are studied. Enrollment is usually limited to students in the Therapeutic Recreation program.

Summary of Revisions: (Enter date and Section Revised) e.g. 1982-08-25 Section C,E,F, and R.

G. Type of Instruction:

	Hours Per Week / ~~Per Semester~~
Lecture	_____ Hrs.
Laboratory	3 Hrs.
Seminar	2 Hrs.
Clinical Experience	_____ Hrs.
Field Experience	_____ Hrs.
Practicum	_____ Hrs.
Shop	_____ Hrs.
Studio	_____ Hrs.
Student Directed Learning	_____ Hrs.
Other (Specify)	_____ Hrs.
Total	5 Hrs.

H. Course Prerequisites: Enrollment in the TRT program or permission of instructor

I. Course Corequisites:

J. Courses for which this Course is a Pre-requisite: TRT 201, TRT 202

K. Maximum Class Size: 24

L. College Credit Transfer [ ]

College Credit Non-Transfer [ ]

Non-Credit [ ]

M. Transfer Credit: Requested [X] Granted [ ]

(Specify Course Equivalents or Unassigned Credit as Appropriate)
U.B.C.
S.F.U.
U. Vic.
Other

Erja Peitso
Course Designer(s)

Divisional Dean

Hendrick Hersad
Director / Chairperson

Registrar

G2516 (Rev. Aug./82)

N. Textbooks and Materials to be Purchased by Students (Use Bibliographic Form):

Memmler, M.D. and D.L. Wood. The Human Body in Health and Disease. 6th Edition J. P. Lippincott. Philadelphia. 1987.

Douglas College, Biology Study Guide.

Complete Form with Entries Under the Following Headings: O. Course Objectives; P. Course Content; Q. Method of Instruction; R. Course Evaluation

O. COURSE OBJECTIVE

Upon completion of this course, the student will be able to:

1. Use a compound microscope, and describe cell and tissue types in the body.
2. Describe the processes by which materials enter and leave cells.
3. Describe anatomical structures using appropriate terminology.
4. Describe the structure and functions of the basic components of the human skeletal system.
5. Specify the different types of joints and describe the ranges of movement in each type.
6. Describe the location, structure and functioning of muscles.
7. Describe the structure and functioning of the circulatory system.
8. Describe the structure and functioning of the nervous system.
9. Describe the structure and functioning of the respiratory system.
10. Describe the structure and functioning of the digestive system.
11. Describe the structure and functioning of the excretory system.
12. Identify the major fluids and electrolytes in the body and explain the mechanisms by which their balance is controlled.
13. Describe the structure and functioning of the endocrine system.

P. COURSE CONTENT

1. There will be a brief introduction to microscopy. The structure and functions of cells and tissues will be examined. Cellular processes and the general properties of cells will be described.

2. The principal systems of the human body will be described using general directional terms.

3. The components of the human skeleton will be reviewed. The structure and functions of bone and bone growth and development will be described.

4. Articulations of the human skeleton will be examined with reference to their structure and the types of movement which they allow. The general classification of joints and the body's level systems will be described.

5. The principal skeletal muscles in different regions of the body will be identified and the type of movement of each will be described.

6. The organization of the human nervous system will be described. The structure and functions of various components of the nervous system, including neurons, the reflex arc, and the brain will be examined.

7. The components of the cardiovascular system will be studied. The characteristics of blood and lymph and their functions in the body will be described. Cardiac tissue will be examined with reference to the structure and functions of the conduction system of the heart.

8. The components of the human respiratory system and their functions will be studied. The mechanisms of ventilation and gas exchange and types of pulmonary volumes will be described.

9. The general anatomy of the digestive system will be examined. The roles of the organs and glands of the gastrointestinal tract will be described.

10. The gross anatomy of the excretory system will be studied. The structure and physiology of the nephron will be examined in detail.

11. The control and regulation of the fluid composition of the body will be examined. Major electrolytes will be identified.

12. The hormones of the major endocrine glands will be identified and their effects will be described.

Q. METHOD OF INSTRUCTION

There will be a weekly seminar and a laboratory period. In the seminar, the student will be evaluated on the previous week's work by a written test. Another function of the seminar is a review of the previous week's work and a discussion of the current week's work. In the laboratory, the student will be evaluated on the current week's work by an oral test using charts and models. The lab will illustrate the principles of anatomy and physiology outlined in the course content. Lab materials include models, charts, microscope slides, demonstration material, audiotapes and videotapes.

R. COURSE EVALUATION

Weekly evaluations	30%
Mid-term lab exam	5%
Final lab exam	10%
Mid-term theory exam	25%
Final theory exam	30%
	100%