

Division: ACADEMIC

 DATE: August, 1991

 B: Department: SCIENCE & MATHEMATICS

 New Course:       

 Revision of Course  
 Information form:   X  

 DATED: March, 1985

C: <u>BIOLOGY 103</u>	D: <u>HUMAN BIOLOGY I</u>	E: <u>3</u>
Subject & Course No.	Descriptive Title	Semester Credit

**F: Calendar Description**

Human Biology is an introduction to the study of anatomy and physiology of humans. The levels of organization in the human body are studied as well as the anatomy and physiology of the skeletal, muscular, nervous, and circulatory systems. Enrolment is usually limited to students enrolled in the Nursing and Psychiatric Nursing Programs. An evening section may be offered for students not currently in the Nursing or Psychiatric Nursing Programs.

**Summary of Revisions:**  
 (Enter date & section)  
 Ex: Section C,E,F, &R

F,G,L,M,N,O,R
**G: Type of Instruction: Hours Per Week/ Per Semester**

Lecture	_____	Hrs.
Laboratory (Audio-Tutorial)	<u>3</u>	Hrs.
Seminar (Tutorial)	<u>2</u>	Hrs.
Clinical Experience	_____	Hrs.
Field Experience	_____	Hrs.
Practicum	_____	Hrs.
Shop	_____	Hrs.
Studio	_____	Hrs.
Student Directed Learning	_____	Hrs.
Other	_____	Hrs.

**TOTAL** 5 HOURS

**H: Course Prerequisites:**  
 NONE

**I: Course Corequisites:**
**J: Course for which this course  
 is a pre-requisite**  
BIOLOGY 203
**K: Maximum Class Size:**  
25
**M: Transfer Credit:**

 Requested \_\_\_\_\_  
 Granted   X  

 Specify Course Equivalents or  
 Unassigned Credit as Appropriate

 U.B.C. BIOL 153 (3) (With Douglas BIO 203)  
 S.F.U. GE BISC (1.5)  
 U. Vic.  
 OTHER:

**L: College Credit Transfer**   X    
 College Credit Non-Transfer \_\_\_\_\_

  
 COURSE DESIGNER(S)

  
 DIRECTOR/CHAIRPERSON

  
 DIVISIONAL DEAN

  
 REGISTRAR

N: TEXTBOOKS AND MATERIALS TO BE PURCHASED BY STUDENTS

Tortora, G.J. and Anagnostakos, N.P. 1990. Principles of Anatomy and Physiology (6th Edition).  
New York: Harper and Row Publishers Inc.

Biology 103 Study Guide. Douglas College

O. COURSE OBJECTIVES

Upon completion of Biology 103, the student will be able to:

1. Use a compound microscope, and describe and identify cell and tissue types in the body.
2. Describe anatomical structures using appropriate terminology, and specify the locations of the various organs and systems.
3. Describe the components and functions of the integumentary system.
4. Identify the components of the human skeleton, and describe the structure and growth of long bones.
5. Describe the types and range of movements of skeletal articulations.
6. Describe the location, structure and functioning of the major muscles of the body.
7. describe the basic principles of biomechanics.
8. Describe the structure and functioning of the cardiovascular and lymphatic systems.
9. Describe the origin, composition, and functions of blood.
10. Describe the structure and functioning of the respiratory system and describe the transport of gases in the blood.
11. Describe the gross anatomy of the digestive system and describe the digestion and absorption of carbohydrates, lipids and proteins.
12. Describe the structure and function of carbohydrates, lipids, proteins, and nucleic acids.

P. COURSE CONTENT

1. The structure and function of cells will be examined. Sample cells types will be examined microscopically.
2. The biology of cells will be examined with particular reference to the transport of materials across cell membranes.
3. Homeostatic organs and organ systems will be described.
4. The major tissue types will be described. Selected tissues will be examined microscopically.
5. The body organization and systems of the body will be described using appropriate terminology.
6. The structure and function of the integumentary system will be described.
7. The skeleton will be examined. The organization, articulations, structure, and development of bones will be described. Articulations of the skeleton will be examined with reference to their structure and the types of movement which they allow.
8. The principal muscles and muscle groups will be identified and the movement created by each will be described.
9. The origin, composition, and function of blood and lymph will be described.
10. The circulation of blood and lymph will be studied. The structure and functioning of the heart and vessels will be examined.
11. Blood analysis will be discussed, including hematocrit, hemoglobin, erythrocyte count, and differential leucocyte count will be discussed and performed or demonstrated in the laboratory.
12. The components of the immune system will be described. The body's response to infective agents will be discussed with reference to the various types of immune responses.
13. The functions of the various components of the respiratory system will be examined. Ventilation, gas exchange, and transport of gases in the blood will be described.
14. The structure and functioning of the digestive system will be examined. The action of the various digestive enzymes and the absorption of digested nutrients will be described.
15. The structure and function of carbohydrates, lipids, proteins, and nucleic acids will be studied.

R. COURSE EVALUATION

TYPE OF EVALUATION	POINTS
Weekly Class Evaluations	25
Laboratory Evaluations	
Laboratory Examination - midterm	5
- final	10
Comprehensive Examinations - midterm	30
- final	30
TOTAL	100

  

GRADES:	A <sup>+</sup> 92-100	A 87-91	A <sup>-</sup> 82-86	B <sup>+</sup> 77-81	B 72-76	B <sup>-</sup> 67-71
	C <sup>+</sup> 62-66	C 57-61	C <sup>-</sup> 53-56	P 50-52	F 0-49	

1. Weekly Class Evaluations:

Each week, there will be written evaluations in class based on the course objectives and other material covered in the previous week. The best 9 out of 10 evaluations will be averaged to determine this portion of the grade.

2. Laboratory Evaluations:

Approximately eight laboratory evaluations will be assigned during the semester. The evaluations must be completed in the laboratory in the week that they are assigned. The laboratory assignments are "mastery based" and each will be assigned a grade of P(Pass), or R(review recommended), or UN(Unprepared). 1 mark will be deducted from the Weekly Evaluations for each evaluation not completed (with a P or R grade). Students are encouraged to be re-evaluated to improve a UN or R grade. Re-evaluations must be completed in the week they are assigned.

3. Laboratory Examination:

There will be one mid-term laboratory examination and one final laboratory examination.

4. Comprehensive Examinations:

A mid-term and a final examination will be worth 30 marks each. The mid-term examination will cover all material covered prior to the examination. The final examination will cover the entire course. If the student achieves a better grade on the final exam than on the mid-term examination, the mid-term grade will be raised to equal that achieved on the final examination.