# Biology 152 — Fall 2004

# Anatomy and Physiology for Nursing

#### INTRODUCTION

Biology 152 is the first half of a two-semester course on the anatomy and physiology of the human body with applications to clinical nursing practice. The course traces anatomy and physiology of cells, tissues and selected organ systems. Themes, which will be integrated in the course, include physical assessment, diagnostic testing, basic pharmacology, nutrition and development.

# INSTRUCTORS Biology

Ahmed Vawda	F342D	370-3479 vawda@camosun.bc.ca
Don MacRae	F346A	370-3437 dmacrae@camosun.bc.ca
Peggy Hunter	F248C	370-3427 hunterp@camosun.bc.ca
Nursing		
Sandy Stewart	ТВА	TBA <u>dragonflies@shaw.ca</u>

#### **TEXTBOOKS**

## **Biology - Required**

- Martini, F. (2004). Fundamentals of Anatomy and Physiology. (6<sup>th</sup> Ed.) Benjamin Cummings, San Francisco.
- Camosun College, Department of Biology. *Biology 152: Course Outline, Learning Objectives and Laboratory Directions* Fall 2003.

#### **Optional**

- Seiger, C. (2004). *Study Guide: Fundamentals of anatomy and physiology.* (6<sup>th</sup> Ed.) Benjamin Cummings, San Francisco. (available in the library on a reserve basis)
- \*Kapit, W. and Elson, L. (2002). *The Anatomy Coloring Book.*New York, NY: Harper & Row.
  \*or other similar publication

# Nursing – Required for students registered in nursing. For others, texts are optional.

- Dugas, B., Esson, L. & Ronaldson, S. (1999). *Nursing foundations: A Canadian Perspective.* (2<sup>nd</sup> Ed.) Scarborough, Ontario: Prentice Hall Canada Inc.
- Estes, M. (2002). *Health assessment & physical examination.* (2<sup>nd</sup> Ed.) Toronto: Delmar Publishers.
- Eisenhauer, L., Wemett, L., Spencer, R., & Burgan, F. (1998). *Clinical pharmacology & nursing management.* (5<sup>th</sup> Ed.) New York: Lippincott.

#### Lab requirements

- 1. Lab coat. Disposable lab coats are acceptable and can be used for the two semesters of biology.
- 2. Binder for laboratory modules and assignments with lined and blank loose-leaf paper.
- 3. Colored pencils.

#### **EVALUATION**

There will be two theory examinations during the term, a midterm laboratory examination and final comprehensive theory and laboratory examinations. Theory examinations will include both the nursing and biology components of the course. Marks may also be awarded for assignments, lab reports and/or class participation.

Midterm Exam		30%
Assignments.		10%
Midterm Lab Exam		10%
Final comprehensive	Lab Exam	15%
Final comprehensive		.35%

Examinations will be given at times indicated on the Course Schedule. Assignments will be due at times as announced in class. There will be only ONE makeup examination and will only be granted for genuine emergencies, supported by documentation acceptable to the department. In the case of illness or emergency, the student must notify the instructor in advance of the examination in order for alternate arrangements to be made. *Note:* Vacation plans do not constitute an emergency. Please see STUDENT RESPONSIBILITIES.

The following letter grades will be applied to examinations and other forms of evaluations in this course:

A+ A	=	95% - 100% 90% - 94%	<u> </u>	=	65% - 69% 60% - 64%
A–	=	85% - 89%	D	=	50% - 59%
B+ B	=	80% - 84% 75% - 79%	F	=	less than 50%
B-	=	70% - 74%			

#### STUDENT RESPONSIBILITIES

- 1. Students are expected to hand in any required reports on time.
- 2. Late reports will receive a penalty of 10% per day for each weekday. If a report is due on Friday, a penalty of 10% will be applied to Saturday/Sunday period.
- 3. Attendance is important to ensure success. If unable to attend a session, the student is responsible for arranging with a classmate to obtain information such as notes, handouts and announcements.
- 4. Examinations must be written as scheduled. Exceptions will be made at the discretion of the instructor and only if documentation of the illness or emergency acceptable to the department is received. The student must notify the instructor **in advance** of the examination.

- 5. If acceptable documentation for missing a theory examination is received, the student will be given an opportunity to write a makeup examination in week 13 which will be valued at the percentage allocated to the missed examination. This makeup examination will cover all material covered up to and including week 12.
- 6. If a student is unable to take the midterm laboratory examination and provides acceptable documentation, the final comprehensive laboratory examination will be weighted 25% of the course mark.
- 7. If a student is unable to take the final laboratory examination and provides acceptable documentation, an oral laboratory examination will be given.
- 8. Any evaluation of work for in-class/lab assignments, reports and/or participation will not be given if a student is not present for any reason.
- Students are expected to work independently on reports unless instructed that the evaluation is based on group effort and evaluation. Please see ACADEMIC MISCONDUCT.
- 10. Students must know and follow all Safety Rules and Procedures.
- 11. Students must sign the Safety Contract before participating in any laboratory activity.
- 12. Failure to follow the Safety Rules and Procedures will result in penalties at the discretion of the instructor.
- 13. Students must turn off cell phones and pagers during all lectures and laboratories.
- 14. All laboratories start punctually. Information necessary for performing the laboratory correctly and safely is given at the beginning of the lab. Therefore, students are expected to arrive at the labs <u>before</u> the scheduled start times in order to be prepared to begin the lab on time.

#### **ACADEMIC MISCONDUCT**

Academic misconduct includes but is not limited to the following acts:

- Giving or receiving unauthorized information to or from another student during any examination or test.
- Obtaining or providing, without authorization, questions or answers relating to any examination or test prior to the time of the examination or test.
- Using unauthorized sources of information during any examination or test.
- Asking or arranging for another person to take any examination or test in one's place.
- Plagiarizing, that is, appropriating the work of another or parts or passages of another's writing, or the ideas or language of the same, and passing them off as the product of one's own mind or manual skill.

According to Camosun College policy, the consequence for academic misconduct is receiving a grade of 'F' for the work involved or for the course.

## Concerning spelling

Anatomy is a logical and precise study of a complex subject. The terminology used to describe the body's features is similarly complex. Because the terms have been developed over a period of hundreds of years and were drawn from several languages, especially Latin and Greek, learning their correct usage is a formidable task.

Mastering the usage of these terms will be important to you for several reasons. Correct usage (pronunciation and spelling) will

- foster self confidence
- help to earn the respect of your professional colleagues
- reduce the chances of practical mistakes which may cause harm (or embarrassment consider the difference between washing the peroneal area and the perineal area)

You will be expected to use acceptable pronunciation and spelling for presentations and evaluations. Penalties for spelling errors will be applied. If writing is illegible, no marks will be given.

# **BIOLOGY 152 COURSE SCHEDULE FALL 2004**

The following is a **tentative** schedule of lectures and labs. Changes may be announced in class.

Week	Dates	Lecture Topics	Lab Activities		
1	Sept 6 Sept 7-10	LABOUR DAY Homeostasis, cells and membrane transport	COLLEGE CLOSED  LAB 1: Lab Safety, Anatomical Terminology and Systems Overview		
2	Sept 13-17	Tissues Nursing – Intro to Nursing Applications	LAB 2: Introduction to Microscopy and Tissues		
	Sept 20-24	Integumentary System Nursing – Skin integrity	LAB 3: Tissues (cont'd) and Integumentary System		
4	Sept 27- Oct 1	Skeletal System	LAB 4: Intro to Skeletal System and Axial Skeleton		
5	Oct 4-8	Muscular System	LAB 5: Appendicular Skeleton and Articulations		
6	Oct 11 Oct 12-15	THANKSGIVING DAY  Nursing – Movement and exercise	LAB EXAM #1		
7	Oct 18-22	MIDTERM EXAM Neural Tissue & Action potential	LAB 6: Muscular System		
8	Oct 25-29	Central Nervous System	LAB 7: Central Nervous System		
9	Nov 1-5	Peripheral Nervous system Nursing – Sleep	LAB 8: Peripheral Nervous System		
10	Nov 11 Nov 8-12	REMEMBRANCE DAY Sensory Perception	NO LAB		
11	Nov 15-19	Sensory Perception Nursing – cognition and perception	LAB 9: Anatomy of Eye and Ear Sensory perception		
12	Nov 22-26	Endocrine System	LAB 10: Endocrine System		
13	Nov 29 – Dec 3	Cardiovascular System Nursing – Cardiovascular 1	LAB EXAM #2		
14	Dec 6-10	Cardiovascular System	LAB 11: Cardiovascular Anatomy		
15/16	Dec 13-21	FINAL COMPREHENSIVE EXAM ( Date TBA)			

# **LEARNING OUTCOMES**

Upon successful completion of Biology 152 and Biology 153, you will be able to:

- use your knowledge of normal anatomy and physiology to differentiate normal from abnormal when you are doing physical assessments of clients.
- use and understand correct terminology when you are communicating with other members of the health care team.
- use your knowledge of anatomy and physiology as a basis for further study of pathophysiology.
- demonstrate the ability to apply knowledge of anatomy and physiology gained through laboratory activities to the clinical setting.
- help clients by explaining basic anatomy and physiology, nutrition and pharmacology in the maintenance of health and prevention of disease.

It is important that you are familiar with material that has already been covered in the prerequisite courses, Biology 12 or 080 and Chemistry 11. This information is necessary in order to understand concepts taught in Biology 152. Students are expected to review this prerequisite material, if necessary, as it too is testable. The learning outcomes for Biology 12 can be accessed at the following website: <a href="http://www.bced.gov.bc.ca/irp/curric/biolo.htm#gr12">http://www.bced.gov.bc.ca/irp/curric/biolo.htm#gr12</a>

N.B. For this course you will obtain information from several sources including lectures, class discussions, textbooks, videos, labs and clinical courses. Do not rely exclusively on any one, or only some of the sources.