

# Biology Department Biology 150 Human Anatomy Fall 2008 COURSE OUTLINE

## CALENDAR DESCRIPTION

Biology 150 provides an introduction to structural and functional relationships within the 11 systems of the human body. Using a lab and lecture based format, a combination of slides, models, photographs, diagrams and organ dissections is used to study both gross and microscopic human anatomy. Anatomical and physiological terminology is stressed, with a particular emphasis on its relevance to human health sciences.

### PREREQUISITES

English 12, Biology 12 or equivalent (with a minimum grade of C)

office

phone

email website

(NOTE: Chemistry 11 is a prerequisite for Biology 151; if you are planning to complete both anatomy and physiology then you must have chemistry as well!)

### 1. Instructor Information

Peggy Hunter (Biology)

F248C 370-3427 hunterp@camosun.bc.ca http://hunterp.disted.camosun.bc.ca

# 2. Required Materials

#### TEXTBOOKS

Saladin,K., (2007). Anatomy and Physiology. (4th Ed.) McGraw-Hill Publishing

Camosun College, Department of Biology. *Biology 150 Laboratory Manual,* Camosun College, 2008.

# 3. Course Particulars

| Class hours:  | 3 hrs lab/week 3 hrs lecture/week |  |  |
|---------------|-----------------------------------|--|--|
| Out of class: | 6 hrs/week (minimum!)             |  |  |
| Credits:      | 4 credits                         |  |  |

### 4. Intended Learning Outcomes

- 1. Describe, using anatomical terminology, the human body at the tissue, organ and organ system levels.
- 2. Locate and identify gross and microscopic anatomical structures associated with the 11 human organ systems in slides, models, photographs, diagrams and dissections.
- 3. Visualize and interpret the relationships between anatomical structures in sectional planes of the human body, and describe these relationships using regional and directional terminology.
- 4. Relate anatomical structures to their basic functions and predict how changes in one would logically be expected to result in changes in the other.
- 5. Locate and identify surface anatomical structures by palpation.
- 6. Define anatomical and physiological terms, and apply this terminology in the context of human health science.

# 5. EVALUATION

| Assignments and unit quizzes.   | 35%   |
|---------------------------------|-------|
| Midterm I                       | 12.5% |
| Midterm II                      | 12.5% |
| Final comprehensive theory exam | 40%   |

The following percentage conversions to letter grades will be used for this course:

| A+ | = 90 - 100% | B = 73 - 76%   | D = 50 - 59% |
|----|-------------|----------------|--------------|
| А  | = 85 - 89%  | B- = 70 - 72%  | F = 0 - 49%  |
| A- | = 80 - 84%  | C + = 65 - 69% |              |
| B+ | = 77 - 79%  | C = 60 - 64%   |              |

- quizzes may include a practical component; for example, the identification of structures from anatomical models, dissections and slides; some assignments will require access to the web (eg. D2L assignments)
- the instructor's web site may be useful in reviewing lab material as it provides labeled images of tissues and models examined in the lab
- the final exam is comprehensive

#### **IMPORTANT TO NOTE!**

Examinations and quizzes 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 (a valid written medical excuse supplied by a physician) is received. The student must notify the instructor **in advance** of the examination

Vacation plans and scheduled flights do not constitute an emergency.

#### Knowledge of pre-requisite material

It is important that you are familiar with material that has already been covered in the prerequisite courses, Biology 12 or Biology 080. This information is necessary in order to understand concepts taught in Biology 150. Students are expected to review this prerequisite material on their own, especially those topics listed as "**review**" in the course objectives. This information, as it relates to topics covered in the course, is also examinable.

#### **Concerning spelling**

Mastering the usage of anatomical and physiological terminology 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 the terms **peroneal** and **perineal** or **ileum** and **ilium**)

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

### 7. Student Responsibilities

- 1. Students are expected to hand in any required assignments on time.
- 2. Late assignments 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 and quizzes 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 (a valid written medical excuse supplied by a physician) is received. The student must notify the instructor **in advance** of the examination. Vacation plans do not constitute emergencies.
- 5. 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.
- 6. Students are expected to work independently on reports unless instructed that the evaluation is based on group effort and evaluation. Please see ACADEMIC MISCONDUCT.

There is an Academic Conduct Policy. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, in the college calendar (p 38/39), and on the College web site in the Policy Section.

# **COURSE SCHEDULE - FALL 2008**

The following is a **tentative** schedule and will remain flexible as the semester proceeds. Whenever possible, lab material will be integrated into lectures.

Refer to the **Course Objectives in your lab manual** for specific learning outcomes.

| week | dates               | lectures   | reading              | labs   |
|------|---------------------|--|----------------------|--|
| 1    | Sept 2-5            | Introduction<br>- cells, macromolecules (self review)<br>- body planes, directional terms,<br>cavities<br>- introduction to systems<br>Tissues (Histology) | Ch 1<br>Ch 3<br>Ch 5 | NO LABS<br>(lab 1 material to be covered in<br>lecture this week)      |
| 2    | Sept 8-12           | Integumentary system / Exocrine<br>glands<br>- structure/function/derivatives  | Ch 5/6               | Lab 2<br>- lab safety<br>- cell structure<br>- microscopy<br>- tissues |
| 3    | Sept 15-19          | Skeletal system<br>- bone histology/structure<br>- classification of bones<br>- bone markings  | Ch 7                 | Lab 3<br>- axial skeleton  |
| 4    | Sept 22-26          | Skeletal system (cont'd)<br>- axial / appendicular<br>Articulations<br>- classification<br>- synovial joint structure<br>- movements                       | Ch 8<br>Ch 9         | Lab 4 - appendicular skeleton  |
| 5    | Sept 29 -<br>Oct 3  | Muscular system<br>- muscle structure and micro-<br>anatomy<br>- organization of fibers<br>- muscle terminology  | Ch 10/11             | Lab 5 - articulations and movement                                     |
| 6    | Oct 6-10            | MIDTERM EXAM 1 (Oct 8)<br>Nervous system<br>- neural tissue<br>- organization of n.s.  | Ch 12                | Lab 6 and Lab 7<br>- major muscles and actions                         |
| 7    | Oct 13<br>Oct 14-17 | THANKSGIVING<br>Nervous system<br>- central nervous system   | Ch 13/14             | NO LAB   |

| week | date                | lectures  | reading        | labs  |
|------|---------------------|---|----------------|---|
| 8    | Oct 20-24           | Nervous system (cont'd)<br>- peripheral nervous system<br>- autonomic nervous system                        | Ch 15          | Lab 8<br>- central nervous system<br>- brain and spinal cord              |
| 9    | Oct 27-31           | Special senses<br>- eye /ear<br>Endocrine system<br>- glands / hormones                                     | Ch 16<br>Ch 17 | Lab 9<br>- peripheral nervous system<br>- eye and ear<br>endocrine glands |
| 10   | Nov 3-7             | MIDTERM 2 (Nov 5)<br>Cardiovascular system<br>- blood<br>- heart  | Ch 18/19       | NO LABS (lecture catch-up if required or review)                          |
| 11   | Nov 10              | Cardiovascular system (cont'd) - arteries / veins / capillaries   | Ch 20          | Lab 10<br>-cardiovascular system  |
|      | Nov 11<br>Nov 12-14 | REMEMBRANCE DAY   | Ch 21          |   |
| 12   | Nov 17-21           | Respiratory system - structures and functions related to gas exchange                                       | Ch 22          | Lab 11<br>-lymphatic and respiratory                                      |
|      |                     | Digestive system     - structures and functions related to     digestion                                    | Ch 25          |   |
| 13   | Nov 24-28           | Digestive system (con't) Urinary system - structures and functions related to urine formation and excretion | Ch 23          | Lab 12<br>- digestive system<br>- urinary system                          |
| 14   | Dec 1-5             | Reproductive system - male and female reproductive structures - ovarian and testicular histology            | Ch 27/28       | Lab 12<br>- reproductive system   |
| 15   | Dec 8-16            | FINAL EXAM WEEK (30%)<br>- scheduled by registrar   |                |   |