

BIOLOGY 150 – FALL 2002
BIOLOGY FOR HEALTH SCIENCE 1 : HUMAN ANATOMY
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 (with a minimum grade of C)

INSTRUCTOR

Peggy Hunter Phone: 370-9644

Office: F248C

Office hours: as posted on office door

COURSE PARTICULARS

Class hours: *1.5 hrs lab/week 3 hrs lecture/week*

Out of class: *6 hrs/week (minimum!)*

Credits: *4 credits*

TEXTS

Required:

Marieb, E. N., *Human Anatomy and Physiology*, Benjamin/Cummings, 5th Ed., 2000

Camosun College, Department of Biology. *Biology 150: Laboratory Manual – Fall 2002*

Optional:

Langjahr, S.W. and Brister, R.D., *Coloring Atlas Of Human Anatomy*, 2nd ed., Benjamin/Cummings, 1992.

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

EVALUATION

Your progress in learning about human anatomy will be assessed on a continuous basis using a number of methods. Each week some marks will be awarded for laboratory exercises and/or weekly quizzes. There will be two formal written midterm examinations, two laboratory examinations and one final comprehensive written examination.

As is the policy for other university transfer science courses, it is necessary to pass the laboratory component of this course .

Quizzes and/or assignments	20%
Lab exam 1	10%
Lab exam 2	10%
Lecture midterm 1	15%
Lecture midterm 2	15%
Final	<u>30%</u>

100%

The quizzes and exams will be given at times indicated on the Course Schedule. Alternate times for laboratory exams are impossible. Alternate times for other evaluations will only be granted for genuine emergencies, supported by a doctor's note.

Note: Vacation plans do not constitute an emergency.

A+	=	95% and over	C+	=	65% and over
A	=	90% and over	C	=	60% and over
A-	=	85% and over	D	=	50% and over
B+	=	80% and over	F	=	less than 50%
B	=	75% and over			
B-	=	70% and over			

GENERAL DEPARTMENT POLICIES

1. *Students are responsible for contacting their instructor if they are absent from exams or quizzes or do not hand in a project on time. Those who are ill and contact the instructor **prior** to the evaluation time will have alternative times established, but only if a valid written medical excuse has been supplied by a physician. Those who do not contact the instructor will forfeit the grades on quizzes or exams missed. **"Late" assignments will be accepted, but at a penalty of 15%/day late. In class lab assignments cannot be made up outside of lab time.***
2. ***All projects submitted to an instructor for evaluation must be typed or word-processed, double-spaced, and stapled in the upper left corner.** [Please, no folders or plastic covers]*
3. ***Attendance is mandatory in lab periods** because many activities depend upon work by pairs or groups of 4 students. Absences will be noted and penalized, unless a call is made to the instructor. [All phones have answering machines.] In the latter case if a doctor's note is provided, lab work will be reviewed for the student as much as possible.*
4. *All students are required to pass a quiz on microscope procedures and care of microscopes prior to continuing with laboratory work in department courses.*
5. *Final exams must be written when they have been scheduled during the exam period. No student should plan to be absent from Victoria until after the last day of this period.*
6. *Plagiarism is not accepted. All lab write-ups other than group reports, even those that are based upon data common to a lab group, should be presented individually. Should two very similar projects, reports or labs be turned in -- the original mark will be divided accordingly.*
7. *Cheating on quizzes and exams is not tolerated. Any incidents will be documented and may result in the student being asked to forfeit the exam and perhaps the course.*
8. *For safety reasons, there is **no eating or drinking** allowed in the lab rooms:*
9. *Prior to taking part in lab activities all students are required to sign a statement certifying that they have read and agree to follow the laboratory procedures and safety regulations.*
10. *Individual courses may have additional policies which will be stated on introductory sheets. It is the student's responsibility to read these sheets and be aware of information they contain.*

COURSE SCHEDULE - FALL 2002

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

week	dates	lectures	reading	labs
1	Sept 3-5	Introduction (self review) - levels of organization - macromolecules (self review) - cells (self review) Tissues - epithelial, connective	Ch 1-3 Pg 1-113 Ch 4 Pg 114-147	Lab 1 - body planes, directional terms, cavities - introduction to systems
2	Sept 10-12	Tissues (cont'd) - nervous, muscle Integumentary system / Exocrine glands - structure/function/derivatives	Ch 5 Pg 148-171	Lab 2 - cell structure - microscopy
3	Sept 17-19	Skeletal system - overview, function, bone growth - classification of bones - bone markings	Ch 6 Pg 172-197	Lab 3 - tissues - integumentary system
4	Sept 24-26	Skeletal system (cont'd) - axial / appendicular Articulations - classification - synovial joint structure - movements	Ch 7 Pg 198-247 Ch 8 Pg 248-275	Lab 4 - bone structure - axial skeleton
5	Oct 1-2 Oct 3	Muscular system - muscle structure and micro-anatomy - organization of fibers - muscle terminology LECTURE MIDTERM 1 (15%)	Ch 9 Pg 276-285 Ch 10 Pg 322-385	Lab 5 - appendicular skeleton - articulations (joints, fascia, bursae, ligaments)
6	Oct 9-12 Oct 14	Nervous system - neural tissue - overview THANKSGIVING DAY	Ch 11 Pg 386-396	Lab 6 - muscle tissue - major muscles and their actions
7	Oct 15-17	Nervous system - central nervous system	Ch 12 Pg 428-473	LAB EXAM 1 (10%) (Labs 1-6)

week	date	lectures	reading	labs
8	Oct 22-24	Nervous system (cont'd) - peripheral nervous system - autonomic nervous system	Ch 13 Pg 474-511 Ch 14 Pg 512-522	Lab 7 - central nervous system - brain and spinal cord
9	Oct 29 – 30 Oct 31	Special senses - eye /ear Endocrine system - glands / hormones LECTURE MIDTERM 2 (15%)	Ch 16 Pg 558-607 Ch 17 Pg 608-649	Lab 8 - peripheral nervous system
10	Nov 5-7	Cardiovascular system - blood - heart	Ch 18 Pg 650-665 Ch 19 Pg 681-694	Lab 9 - eye and ear - endocrine glands
11	Nov 11 Nov 12-14	REMEMBRANCE DAY Cardiovascular system (cont'd) - arteries / veins / capillaries Lymphatic system	 Ch 20 Pg 717-727 Pg 750-776 Ch 21 Pg 777-791	 Lab 10 - blood smears - heart - arteries / veins / capillaries - lymphatic system
12	Nov 19-21	Respiratory system - structures and functions related to gas exchange Digestive system -structures and functions related to digestion	Ch 23 Pg 834-851 Ch 24 Pg 887-947	Lab 11 - respiratory system - digestive system
13	Nov 26-28	Urinary system - structures and functions related to urine formation and excretion Reproductive system - male and female reproductive structures - ovarian and testicular histology	Ch 26 Pg 1004-1012,1029-1031 Ch 28 Pg 1070-1094	Lab 12 - urinary system - reproductive system
14	Dec 3-5	REVIEW (if time allows!)		LAB EXAM (10%) (Labs 7-12)
15	Dec 9-17	FINAL EXAM WEEK (30%) - scheduled by registrar		

COURSE OBJECTIVES

The following course objectives indicate what you will be able to do when you successfully master the materials presented under each of the topic headings. They are grouped under "Major Concept Objectives", which give an overview to the topic, and also under "Detailed Content Objectives", where each of the major concepts is broken down into its component details.

The objectives stipulate what you need to know in order to pass the course. Evaluations in the course will be designed to determine how well you have achieved these objectives. The evaluations will therefore be based on the objectives, but you should be aware that the formal evaluations will be for the most part in multiple choice format, with questions which ask about the objectives, rather than simply turning the objectives into questions. For example, referring to Unit I (Introductory), Objective 1, you will not be asked:

Identify the levels of structural organization in the body.

Instead, you might be asked:

Which level of structural organization is next above the cell?

- A. *chemical*
- B. *organism*
- C. *organ*
- D. *system*
- E. *tissue.*

Bear this in mind when you are studying.