

School of Arts & Science BIOLOGY DEPARTMENT BIOL 150-H03 Cell Biology Winter 2013 (Feb. - June)

COURSE OUTLINE

The course description is online @ http://camosun.ca/learn/calendar/current/web/biol.html

Please note: the College electronically stores this outline for five (5) years only. It is **strongly recommended** you keep a copy of this outline with your academic records. You will need this outline for any future application/s for transfer credit/s to other colleges/universities.

1. Instructor Information

| Instructor: | Dr. Kate Pettem |
|---------------|---------------------------------|
| Office Hours: | By Appointment (see below) |
| Location: | F352 |
| Phone: | 250-370-3445 |
| Email: | pettemk@camosun.bc.ca |
| Website: | http://online.camosun.ca/ (D2L) |

Important Note: Since this lecture occurs off campus and during school hours, daytime drop-in office hours will not be held. I am happy to answer any questions during class and lab time, and I will also usually be available before your lab section in the evening. If you would like to meet to discuss anything pertaining to the course, simply arrange an appointment by e-mail and I'll be very pleased to meet with you at a mutually convenient time.

2. 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.

3. Prerequisites

English 12 Biology 12

4. Intended Learning Outcomes

(<u>No</u> changes are to be made to these Intended Learning Outcomes as approved by the Education Council of Camosun College.)

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

- 1. Describe, using anatomical terminology, the human body at the tissue, organ and organ system levels.
- 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.

Note: more specific learning outcomes will be provided along with each unit as we progress through the course.

5. Required Materials

Text

Kapit and Elson (2001) The Anatomy Coloring Book, 3rd Edition (Benjamin Cummings)

Note: Coloring assignments WILL be part of the assessment for this class. I highly recommend purchasing a set of both pencil crayons (24 colors) and thin-tipped markers (lighter colors are best) for this course if you don't already have some.

Lab Manual

Biology 150 Lab Manual (Winter 2012), Camosun College.

Lecture Outlines

Lectures will be delivered in a PowerPoint format. PowerPoint slides will be made available on the Biology 150 D2L website. These may be used or printed at the student's discretion to help follow the lectures.

Additional Recommended Resources

There are a multitude of free and paid resources for studying anatomy. Depending on your learning style, you may want to make use of many, some or none of them in addition to the required texts and the provided lecture slides. If you would like extra resources, here are a few I would recommend:

- Your school's copies of anatomy textbooks
- 'Peggy's Webite': <u>http://hunterp.disted.camosun.bc.ca/</u>
 - This site (developed by a Camosun instructor) contains annotated photographs of most of the models we will use in the lab and is a great review / preparation resource.
 - The site also contains links to other anatomy resources, including pronunciation dictionaries and tissue slides
- Anatomy TV: http://camosun.ca.libguides.com/content.php?pid=199471&sid=1928173
 - o In the first column click the link for Anatomy.TV
 - This is a resource available to Camosun students, so you will need to sign-in with your C#
 - The site contains models which can be manipulated to add/remove layers, identify components, etc.
- Dominic's Videos:
 - These are additional anatomy lectures developed by a Camosun instructor. They will be posted on D2L.
- Visible Body: <u>http://www.visiblebody.com/</u>
 - This is a PAID program. The PC / MAC versions are somewhat expensive, but the iPhone app is only \$9.99. This is a similar resource to Anatomy TV but is somewhat more user-friendly / intuitive. The app version is obviously portable so may be handy for laboratories as an additional resource. This is NOT a required resource for this class, but if you want to purchase an app anyways, this one is worth your money.

6. Course Schedule

| Mon. 2:10 PM – 3:30 PM |
|------------------------|
| Wed. 2:10 PM – 3:30 PM |
| (At Belmont) |
| |

| Lab: | Wed. 6:30 PM – 9:20 PM |
|------|---|
| | (At Camosun College, Fisher Building Rm. 244) |

Course Content: See Last Page

7. Basis of Student Assessment (Weighting)

Lab: 35%

| Lab. 33 /6 | |
|--|-----|
| Lab Assignments: | 10% |
| Lab Quizzes: | 10% |
| Lab Final Exam: | 15% |
| Lecture: 65% | |
| Quizzes / Assignments / Participation: | 10% |
| Lecture Midterm 1: | 15% |
| Lecture Midterm 2: | 15% |
| Lecture Final Exam: | 25% |
| | |

8. Grading System

(<u>No</u> changes are to be made to this section unless the Approved Course Description has been forwarded through the Education Council of Camosun College for approval.)

| Percentage | Grade | Description | Grade Point Equivalency |
|------------|-------|--|----------------------------|
| 90-100 | A+ | | 9 |
| 85-89 | Α | | 8 |
| 80-84 | A- | | 7 |
| 77-79 | B+ | | 6 |
| 73-76 | В | | 5 |
| 70-72 | B- | | 4 |
| 65-69 | C+ | | 3 |
| 60-64 | С | | 2 |
| 50-59 | D | Minimum level of achievement for which credit is granted; a course with a "D" grade cannot be used as a prerequisite. | 1 |
| 0-49 | F | Minimum level has not been achieved. | 0 |

Standard Grading System (GPA)

Temporary Grades

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy E-1.5 at **camosun.ca** for information on conversion to final grades, and for additional information on student record and transcript notations.

| Temporary Grade | y Description | | | |
|--------------------|--|--|--|--|
| I | <i>Incomplete</i> : A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family. | | | |
| IP | <i>In progress:</i> A temporary grade assigned for courses that, due to design may require a further enrollment in the same course. No more than two IP grades will be assigned for the same course. (For these courses a final grade will be assigned to either the 3 rd course attempt or at the point of course completion.) | | | |
| CW | Compulsory Withdrawal: A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement. | | | |

9. Student Conduct Policy

There is a Student Conduct Policy which includes plagiarism. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, at Student Services, and the College web site in the Policy Section.

Plagiarism

Plagiarizing is appropriating the work of another or parts or passages of another's writing (including the ideas or language) and passing them off as the product of one's own mind or manual skill. **Plagiarism will not be tolerated.** Plagiarism, **including the copying of any part of assignments or lab assignments**, is a serious offence and is considered to be academic misconduct. In some cases, the lab instructor may prefer a lab assignment to be written as a group. In such cases, handing in one assignment for the group will be acceptable. Otherwise, lab assignments handed in by individuals are expected to be individually prepared.

Cheating

A student caught cheating on an exam will forfeit all credit for that exam and perhaps for the course. Cheating is a serious offence and is considered to be academic misconduct. **Cheating includes, but is not limited to, using unauthorized materials in a quiz/exam and providing information to another person regarding exam content.** The consequences for cheating and plagiarism are outlined by Camosun College policies (see http://camosun.ca/about/policies/education-academic/e-2-student-services-&-support/e-2.5.pdf and http://camosun.ca/about/policies/education-academic/e-2-student-services-&-support/e-2.5.pdf and http://camosun.ca/about/policies/education-academic/e-2-student-services-&-support/e-2.5.pdf and http://camosun.ca/about/policies/education-academic/e-2-student-services-&-support/e-2.5.1.pdf) and may be severe.

Lab Safety

Under **NO** circumstances will students ingest food or drink in the lab. Taking oral medication or applying makeup or lip balm in the lab is also prohibited. You may leave the lab at a convenient time if you are thirsty, need a snack or require medication. For safety reasons students are **required** to wear closed shoes and pants in all lab times. Flip

flops, sandals or shoes with holes are not acceptable. The spirit of this is safety, so make sure your 'closed-toed' shoes are actually safe!

Failure to adhere to the lab safety principles will result in the inability to enter the lab, or expulsion from the lab, and the subsequent **loss of credit** for that lab, including any pre-lab assessment credit.

Laboratory Attendance

The laboratory experience is critical to the course objectives and so attendance throughout the entire laboratory session is mandatory and will be noted. Failure to attend the lab, lateness in arriving or leaving the lab before its scheduled finish time will result in forfeiting credit for that lab, including any written assignments or assessments. If a lab session is missed, another student's data **may not** be used to complete a lab assignment for credit. Exceptions can be made **at the instructor's discretion** in legitimate cases of emergency (e.g. illness); in such cases the instructor must receive **advance notification** and **documented evidence** of the situation (e.g. medical certificate) and grant approval for any accommodation.

Missed Exams and Assessments

Lab quizzes and the exam must be written at the scheduled times. Under no circumstances will a lab make-up exam be administered. However, it is understood that emergency circumstances occur (e.g. illness or emergency in the immediate family); for such circumstances accommodation may be offered at the discretion of the instructor, provided (a) the instructor is notified in advance of the exam (not after) and (b) the student provides documented evidence of the circumstance (i.e. medical certificate). Without exception, the accommodation will be in the form of adjusting the weighting of the final lecture exam to make up the missing marks. In such cases, the final lecture exam will include extra questions to examine knowledge of the untested subject matter.

Lab quizzes will occur at the beginning of each laboratory session (except the first). If you are late and the class has finished writing the quiz, you will not be eligible to write the quiz and will receive a mark of zero. Likewise, if a lab is missed for a legitimate reason (see above), you will receive a mark of zero for the missed quiz. However, at the end of the term, your single lowest quiz mark will be omitted from your final quiz mark grade (10% overall), so a single missed quiz or low mark will not adversely affect you. Under no circumstances will make-up quizzes be administered.

For a midterm missed for a medical or family emergency, a make-up exam may be administered, at the discretion of the instructor, provided that (a) the instructor is notified in advance of the exam (not after) and (b) the student provides documented evidence of the circumstance (i.e. medical certificate).

For in-class assignments / participation: these activities will take place during class and may require you to prepare or read before coming to class. Your mark will be based on your preparedness and participation during the activity. If you are absent on the day of an in-class activity (without a valid medical or emergency excuse) you will receive a zero for that activity. Content from in-class activities is also testable, so be sure to catch-up with a classmate if you do miss one.

Please note: holidays or scheduled flights are not considered to be emergencies!

Late Penalties

Any lecture assignments must be handed in on the scheduled date **at the start of class**. Regular assignments will be graded but marks equivalent to 10% of the total value of the assignment will be deducted per day past the deadline. Laboratory assignments are to be completed on D2L after your laboratory period. Assignments for each lab will open on the day of the lab and will remain open until the beginning of the following laboratory period. Assignments may be repeated as many times as you wish if you do not score 100% on your first try. Once a lab assignment closes on D2L, **NO late lab assignments or changes will be accepted for any reason.**

Student Responsibilities

- 1. It is believed that attending and actively engaging in lecture times is in the best interests of student success. Should it be necessary to miss a lecture, however, it is the student's responsibility to catch up on anything that may have been missed (e.g. important announcement or assignments).
- 2. Students are expected to hand in any required reports on time. Late assignments will be penalized (see above).
- 3. All written work (including numerical entries in data tables) is to be submitted in word processed form. Electronic submissions (e.g. as e-mail attachments) will not be accepted, except where specified **by the instructor**. Failure to comply will result in late penalties (as indicated).
- 4. Examinations must be written as scheduled. Exceptions may be made for emergencies at the discretion of the instructor (see above). The student must notify the instructor in advance of the examination.
- 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.

- 7. Students must know and follow all Safety Rules and Procedures. Students must sign the Safety Contract before participating in any laboratory activity. Failure to follow the Safety Rules and Procedures will result in penalties at the discretion of the instructor.
- 8. Eating or drinking is **strictly prohibited** and failure to comply may result in expulsion from the lab and loss of any associated lab credit. **No exceptions** will be tolerated.
- 9. Students must turn off cell phones during lectures and laboratory sessions.
- 10. All laboratories start punctually. Information necessary for performing the laboratory correctly and safely is given at the beginning of the lab. Late attendance may result in inability to attend the lab and subsequent loss of credit for any assignments.

Biology 150 – W2013 - Course Schedule (Note: Scheduled dates are subject to change) Topics may be added or deleted depending upon time constraints

| Wk | Day | Date | Unit | Lecture Topic | Lab | Lab Activity |
|----|-----|--------|------|-----------------------------------|-----|----------------------------|
| 1 | Mon | 11-Feb | | FAMILY DAY | 1A | Histology (online module) |
| 1 | Wed | 13-Feb | 1 | Introduction / Cells | | |
| 2 | Mon | 18-Feb | 2 | Tissues, Integumentary System | 1 | Integumentary System |
| 2 | Wed | 20-Feb | 2 | Tissues, Integumentary System | 2 | Axial Skeleton |
| 3 | Mon | 25-Feb | 3 | Skeletal System | 3 | Appendicular Skeleton |
| 3 | Wed | 27-Feb | 3 | Skeletal System | | |
| 4 | Mon | 4-Mar | 4 | Articulations and Muscular System | 4 | Articulations |
| 4 | Wed | 6-Mar | 4 | Articulations and Muscular System | | |
| 5 | Mon | 11-Mar | | | | |
| 5 | Wed | 13-Mar | | SPRING BREAK | | SPRING BREAK |
| 6 | Mon | 18-Mar | | NO CLASSES | | NO LABS |
| 6 | Wed | 20-Mar | | | | |
| 7 | Mon | 25-Mar | 4 | Articulations and Muscular System | 5 | Muscles of Axial Skeleton |
| 7 | Wed | 27-Mar | 5 | Brain and Nervous System | | |
| 8 | Mon | 1-Apr | | EASTER MONDAY | | EASTER |
| 8 | Wed | 3-Apr | | MIDTERM 1 | | NO LABS |
| 9 | Mon | 8-Apr | 5 | Brain and Nervous System | 6 | Muscles of Appendages |
| 9 | Wed | 10-Apr | 5 | Brain and Nervous System | | |
| 10 | Mon | 15-Apr | 5 | Brain and Nervous System | 7 | Central Nervous System |
| 10 | Wed | 17-Apr | 6 | Sensory Organs | | |
| 11 | Mon | 22-Apr | 6 | Sensory Organs | 8 | Peripheral Nervous System, |
| 11 | Wed | 24-Apr | 7 | Heart and Cardiovascular System | | Eye and Ear |
| 12 | Mon | 29-Apr | 7 | Heart and Cardiovascular System | 9 | Cardiovascular and |
| 12 | Wed | 1-May | 8 | Lymphatic System | | Lymphatic Systems |
| 13 | Mon | 6-May | | MIDTERM 2 | 10 | Respiratory and Digestive |
| 13 | Wed | 8-May | 9 | Respiratory and Digestive Systems | | Systems |
| 14 | Mon | 13-May | 9 | Respiratory and Digestive Systems | 11 | Excretory and Reproductive |
| 14 | Wed | 15-May | 10 | Endocrine System | | Systems |
| 15 | Mon | 20-May | | VICTORIA DAY | | VICTORIA DAY |
| 15 | Wed | 22-May | 10 | Endocrine System | 1 | NO LABS |
| 16 | Mon | 27-May | 11 | Urinary and Reproductive Systems | | LAB FINAL EXAM |
| 16 | Wed | 29-May | 11 | Urinary and Reproductive Systems | 1 | |
| | Fri | 14-Jun | | FINAL EXAM (CUMULATIVE) | | |