Course Information Physiology 2130: Human Physiology

Fall/Winter 2019

A survey course outlining the principles of human/mammalian physiology; general properties of the living cell and internal environment; neural, muscular, cardiovascular, respiratory, gastro-intestinal, renal and endocrine system; metabolism, reproduction and homeostasis. Physiology 1020 is designed to help you learn the basic facts, concepts and principles that are essential to your understanding of the function of the human body, so that you will be able to use that knowledge to solve physiological problems. Because most of you who are enrolled in this course intend to pursue careers related to health, the course will place some emphasis on clinical correlations with pathophysiology.

Lectures: Online, see course schedule to determine which lecture you should work through for each week.

Requisites:

Prerequisite(s): First year courses in biology and chemistry are recommended

Antirequisite(s): Physiology 1020, 1021, 3120

Senate regulation regarding the student’s responsibility regarding requisites:

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

Support and accessibility Services:

Registrarial Services: http://www.registrar.uwo.ca/

Academic Counselling (Science and Basic Medical Sciences): http://www.uwo.ca/sci/counselling/index.html

Student Accessibility Services: http://sdc.uwo.ca/ssd/ Phone:661-2111 x 82147

Student Health Services: https://www.uwo.ca/health/shs/

Accessibility Statement

Please contact the course instructor (christine.bell@uwo.ca) if you require material in an alternate
format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Student accessibility services at 661-2111 x 82147 for any specific question regarding an accommodation.

**NEW** Academic Consideration for Missed Work

Students who are seeking academic consideration for missed work during the semester may submit a self-reported absence form online provided that the absence is 48 hours or less and the other conditions specified in the Senate policy at https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Consideration_for_absences.pdf are met.

Students whose absences are expected to last longer than 48 hours, or where the other conditions detailed in the policy are not met (e.g., work is worth more than 30% of the final grade, the student has already used 2 self-reported absences, the absence is during the final exam period), may receive academic consideration by submitting a Student Medical Certificate (for illness) or other appropriate documentation (for compassionate grounds). The Student Medical Certificate is available online at https://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf.

All students pursuing academic consideration, regardless of type, must contact their instructors no less than 24 hours following the end of the period of absence to clarify how they will be expected to fulfill the academic responsibilities missed during their absence. Students are reminded that they should consider carefully the implications of postponing tests or midterm exams or delaying submission of work, and are encouraged to make appropriate decisions based on their specific circumstances.

Students who have conditions for which academic accommodation is appropriate, such as disabilities or ongoing or chronic health conditions, should work with Accessible Education Services to determine appropriate forms of accommodation.

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**Instructor Information**

Name: Dr. Christine Bell

Email: christine.bell@uwo.ca

I endeavor to respond to emails within 24 business hours (9 AM – 5 PM Monday-Friday). Include your name, student number and the name of this course (Phys 2130) in all communications with me. If you do not hear back from me within the time frame listed above, please double check the email address, make sure you have included the information listed above, and send me another email.

Appointments are online and can be made by emailing me (christine.bell@uwo.ca)
OWL is a course management system that allows students and instructors to interact over the web. It allows for discussion of physiological topics using a discussion/bulletin board. It also includes a list of course content, a calendar or course schedule and other information (not all of these will necessarily be running during the course).

You will discover that OWL will be an important part of the course. Owl contains all the content you will need to know for the course. The Physiology 1020 OWL site will allow you to interact with all the other students, the teaching assistants and the instructor. **It is imperative that you access this web site frequently.**

Students with OWL issues should contact the Computer Support Centre at 519 661-3800 or fill out the OWL webform:

https://servlet.uwo.ca:8081/vistahelpdesk/controller.jsp

Help can also be obtained here: https://owlhelp.uwo.ca

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**Course Syllabus**

**Course Objectives:** There are a few general objectives that you should always keep in mind as you study. You will be expected to be able to recall or recognize facts, concepts or principles. The ability to recall, however, is of little value unless you can do something with the information that you have learned. Therefore, you should also be able to use your knowledge to explain physiological function. Most important, of course, is your ability to use your knowledge to predict the consequences of alterations to normal physiological function or to predict changes in physiological systems. Not only are these latter objectives the most useful skills you can learn, but also they are the most interesting.

Each section of the course has its own individual objectives that you should be able to answer upon completion of the particular section.

**Course Format:** The **Content OWL Website** contains all of the basic information and materials presented in the Physiology course offered by the Department of Physiology at the University of Western Ontario. The content has been developed by a Physiology Lecturer and is based directly on the contents of the "traditional" classroom-based course. Completion of these course materials (and of course passing the exam) will provide you with the same course credit received by students who complete the course on campus - even if your schedule won't let you attend classes.

However, this software doesn't just represent a convenient alternative to sitting in class. The multimedia nature of this software has allowed the developers to create a rich
array of dynamic media that present basic physiology concepts in unique and illustrative ways. The interactive nature of the software means that learning is completely self-paced and under direct control of the student at all times. Material can be viewed and reviewed at any time, and a student can move through the information in any way they like: Module by module in a linear fashion, reviewing a series of related topics or exploring all the information on one specific concept.

**Course Topics**

Module 1 – Introduction to Human Physiology
Module 2 – Body Fluids
Module 3 - The Human Cell
Module 4 – The Nerve
Module 5- Muscle
Module 6- The Nervous System
Module 7- The Sensory System
Module 8- The Cardiovascular System
Module 9- The Circulatory System
Module 10- Respiratory System
Module 11- The Renal System
Module 12- Acid/Base Balance
Module 13- The Endocrine System
Module 14- The Reproductive System
Module 15- The Digestive System
Module 16- Metabolism

**Evaluation:**

**15% Assessment Rule:**

At least three days prior to the deadline for withdrawal from a course without academic penalty, students will receive assessment of work accounting for at least 15% of their final grade. For more details, refer to the link below:
Policy on the Rounding and Bumping of Marks:
Across the Basic Medical Sciences Undergraduate Education programs and within the department of Physiology and Pharmacology we strive to maintain high standards that reflect the effort that both students and faculty put into the teaching and learning experience during this course. All students will be treated equally and evaluated based only on their actual achievement. Final grades on this course, irrespective of the number of decimal places used in marking individual assignments and tests, will be calculated to one decimal place and rounded to the nearest integer, e.g., 74.4 becomes 74, and 74.5 becomes 75. Marks WILL NOT be bumped to the next grade or GPA, e.g. a 79 will NOT be bumped up to an 80, an 84 WILL NOT be bumped up to an 85, etc. The mark attained is the mark you achieved and the mark assigned; requests for mark “bumping” will be denied.

Schedule and weight of evaluations:

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Date</th>
<th>% of Final Grade</th>
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<tbody>
<tr>
<td>Case study 1</td>
<td>Oct 2 at 6 PM – Oct 3 at 10 PM</td>
<td>1.5%</td>
</tr>
<tr>
<td>Case study 2</td>
<td>Nov 13 at 6 PM – Nov 14 at 10 PM</td>
<td>1.5%</td>
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<tr>
<td>Cast study 3</td>
<td>Feb 5 at 6 PM – Feb 6 at 10 PM</td>
<td>1.5%</td>
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<tr>
<td>Case study 4</td>
<td>March 18 at 6 PM – March 19 at 10 PM</td>
<td>1.5%</td>
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<tr>
<td>Quiz 1</td>
<td>Oct 16 at 6 PM – Oct 17 at 10 PM</td>
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<tr>
<td>Quiz 2</td>
<td>Dec 4 at 6 PM – Dec 5 at 10 PM</td>
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<tr>
<td>Quiz 3</td>
<td>Feb 12 at 6 PM – Feb 13 at 10 PM</td>
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<tr>
<td>Quiz 4</td>
<td>April 1 at 6 PM – April 2 at 10 PM</td>
<td>1.5%</td>
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<tr>
<td>Test #1</td>
<td>Oct 26, 2019 at 2 PM</td>
<td>16%</td>
</tr>
<tr>
<td>Test #2</td>
<td>Feb 29, 2019 at 2 PM</td>
<td>16%</td>
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<tr>
<td>Midterm</td>
<td>December Exam Period</td>
<td>16%</td>
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The tests, midterm and final exam will be on campus (UWO) or at an exam centre and consist of multiple-choice questions. The questions will be a single multiple choice questions, where you are expected to select the best answer. The tests and midterm will be 1 hour in length. The final exam will be cumulative and 3 hours in length.

You will be evaluated on the lecture material only.

The quizzes and case studies will be done online through the 'Test and Quizzes' tab on OWL and will be graded based on performance. The top three quiz grades and the top three case studies grades will be recorded towards the final grade.

There will be no accommodations granted for missed quizzes or case studies. If you miss an assignment or quiz it will result in an automatic zero, or possibly reweighed if proper documentation is presented that covers the entire missed period.

TED talks are not evaluated, they are simply for entertainment.

Course Materials

Copyright Statement:
Course material produced by faculty is copyrighted and to reproduce this material for any purposes other than your own educational use contravenes Canadian Copyright Laws.

Required- None

Recommended- Textbook: Human Physiology- Silverthorn 6th edition (older editions are fine as well), any other Human physiology text are also fine (Vanders Human Physiology, 10th edition, or Human Physiology-From Cells to Systems 1st edition).

Note: You will only be tested on material contain within the course. Information from a text book would be to enhance this material and is completely optional.

Additional Information and Statements.
Statement on Academic Offences

“Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following website: http://www.uwo.ca/univsec/handbook/appeals/scholastic_discipline_undergrad.pdf.”

“Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.”

Policy on Plagiarism

The Department of Physiology and Pharmacology strongly condemns plagiarism. Plagiarism is the “act or instance of copying or stealing another’s words or ideas and attributing them as ones own.” (Excerpted from Black’s Law Dictionary, West Group, 1999, 7th ed. Pg 1170 and the definition used by Western’s Scholastic Discipline document). Plagiarism can be intentional or unintentional and regardless of intent, is a scholastic offence. It should be noted that self-plagiarism, plagiarizing ones own words for multiple assignments is subjected to the same penalty as plagiarizing another.

The minimum penalty for a first time plagiarism offence of any kind is a grade of zero on the assignment. In addition, details of the offence will be forwarded to Dean’s office and stored. A second offence will carry a much stricter penalty in line with Western’s Scholastic Discipline policies http://www.westerncalendar.uwo.ca/2017/pg113.html

Cell Phone and Device Policy

The Department of Physiology and Pharmacology is committed to ensuring that testing and evaluation are undertaken fairly. For all tests and exams, it is the policy of the Department of Physiology and Pharmacology that any devices with a battery (e.g. cell phone, tablet, camera, watch, smart watch, ipod) are strictly prohibited. These devices MUST be left either at home or with the students bag/jacket at the front of the room and MUST not be at the test/exam desk or in the individuals pocket. Any student found with one of these prohibited devices will receive a grade of zero on the test or exam. Non-programmable calculators are only allowed when indicated by the instructor. The Department of Physiology and Pharmacology is not responsible for stolen/lost or broken devices.

Statement on Discussion of Grades

The Department of Physiology and Pharmacology is committed to fair assessment of student work and encourages students to discuss course content and graded work with their peers in an effort to improve learning.

For Students: While all students have the right to question their grade should they feel it’s
inaccurate, this exercise should be undertaken in a respectful manner. Professionalism and respect should be demonstrated in all interactions with instructors and peers. When discussing a grade or exam question with a professor or teaching assistant, the discussion should focus on your individual concern. Students should remember that some forms of assessment or specific questions are designed to be more challenging than others. In this situation, there may be several students that don’t receive the correct answer and this does not necessarily mean that there is a problem with the question or assessment. Concerns from one student that indicate that they are communicating on behalf of a larger group of peers (mob/crowd mentality) will not be considered. Concerns with an assessment should be communicated to the instructor and should reflect your individual concern. Threats of any sort will not be tolerated and will be considered a violation of the student code of conduct. It is a requirement that you treat your instructors with respect and you should expect the same respect returned to you by your instructor.

For Professors and Teaching Assistants: All professors and teaching assistants should keep an open mind when discussing graded work with students. Make an effort to listen to students and try and see their point of view. If there was ambiguity in a question or multiple correct answers that a student brings to your attention, you should revise the grade. If the student concern is not adequately justified, explain your reasoning. Students that have concerns regarding an exam question or graded assignment deserve to be treated with respect. Treat with them with the same respect that you expect from them. That being said, concerns from one student that indicate that they are communicating on behalf of a larger group of peers (mob/crowd mentality) should not be considered.

Appeals Policy

The Department of Physiology and Pharmacology follows the Western University student academic appeals policy (http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#SubHeading_181). All appeals to individual graded course components must be submitted to the course instructor within 3 weeks of the grade being released. All final course grade appeals must be received by January 31 (1st term classes) or June 30 (2nd term half classes and full year classes). You must first appeal to the course manager. If this appeal is rejected, then you can appeal to the Undergraduate Chair of the Department of Physiology and Pharmacology (Brad.Urquhart@schulich.uwo.ca). If this appeal is rejected, you may then appeal to the Assistant Dean of the Bachelor of Medical Sciences Undergraduate Education Committee (Candace.Gibson@schulich.uwo.ca).

You must have suitable grounds for appeal which may include: 1) appeal on medical or compassionate grounds; 2) appeal based on extenuating circumstances beyond your control; 3) appeal based on bias, inaccuracy or unfairness. All appeals must be accompanied by a detailed explanation along with supporting documentation. You should submit your appeal as an e-mail with a single attachment. If you have multiple supporting documents, you should merge them into a single document.

Absence from course commitments
Illness or Compassionate Accommodations for exams and quizzes: Students are expected to write quizzes and case studies during the scheduled time. In the case of illness or other serious circumstances during the midterm or final exam, you will be required to provide valid medical or supporting documentation as follows:

Senate policy states that “Students seeking academic accommodation on medical grounds for any missed tests, exams, participation components and/or assignments worth 10% or more of their final grade must apply to the Academic Counseling office of their home Faculty and provide documentation. Academic accommodation cannot be granted by the instructor or department.” The UWO policy on accommodation for Medical Illness can be found at: http://www.uwo.ca/univsec/handbook/appeals/accommodation_medical.pdf A completed Student Medical Certificate (SMC) is required for medical documentation. Please present this to the physician and then the appropriate Dean’s office. This certificate is available at: http://www.uwo.ca/univsec/handbook/appeals/medicalform.pdf

Please notify Dr. Bell immediately to let me know you will not complete the exam/quiz at the scheduled time. You will be responsible to make alternative arrangements to complete the missing material once the accommodation has been approved by the Dean’s office. For accommodation to be approved for a missed quiz, the reason for missing the quiz or case study has to apply for the entire time the quiz or case study was available, ex. If a student has not taken the quiz or case study, and is suddenly unable to on the last day the quiz is available, an accommodation will not be granted.

Accommodations for Religious Holidays: If you will be absent from an exam for a religious holiday, you are responsible for contacting Dr. Bell in advance of your absence as well as your academic advisor. This policy can be found at: http://www.uwo.ca/univsec/handbook/appeals/accommodation_religious.pdf

A. Absence for medical illness:

Students must familiarize themselves with the Policy on Accommodation for Medical Illness: https://studentservices.uwo.ca/secure/index.cfm

Statement from the Dean’s Office, Faculty of Science

If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or other supporting documentation to your Dean’s office as soon as possible and contact your instructor immediately. It is the student's responsibility to make alternative arrangements with their instructor once the accommodation has been approved and the instructor has been informed. In the event of a missed final exam, a "Recommendation of Special Examination" form must be obtained from the Dean’s Office immediately. For further information please see:

A student requiring academic accommodation due to illness, should use the Student Medical Certificate when visiting an off-campus medical facility or request a Record's Release Form (located in the Dean's Office) for visits to Student Health Services.

The form can be found at:

https://studentservices.uwo.ca/secure/medical_document.pdf

**B. Absence for non-medical reasons:**

A clear indication of how non-medical absences from midterms, tutorials, laboratory experiments, or late essays or assignments, will be dealt with must be provided. If documentation is required, such documentation must be submitted by the student directly to the appropriate Faculty Dean’s Office and not to the instructor. It will subsequently be the Dean’s Office that will determine if accommodation is warranted.

**C. Accommodations for Religious Holidays**

Accommodations for religious holidays will be made in the event that such a holiday coincides with an exam. However, it is the student’s responsibility to inform the course manager well in advance. For details on the procedures for religious accommodations, please refer to the Academic Calendar. These procedures must be followed. Students seeking accommodation are expected to write the scheduled make-up exam.

**D. Special Examinations**

A Special Examination is any examination other than the regular examination, and it may be offered only with the permission of the Dean of the Faculty in which the student is registered, in consultation with the instructor and Department Chair. Permission to write a Special Examination may be given on the basis of compassionate or medical grounds with appropriate supporting documents.

A Special Examination must be written at the University or an Affiliated University College no later than 30 days after the end of the examination period involved. To accommodate unusual circumstances, a date later than this may be arranged at the time permission is first given by the Dean of the Faculty. The Dean will consult with the instructor and Department Chair and, if a later date is arranged, will communicate this to Registrarial Services. If a student fails to write a scheduled Special Examination, permission to write another Special Examination will be granted only with the permission of the Dean in exceptional circumstances and with appropriate supporting documents. In such a case, the date of this Special Examination normally will be the scheduled date for the final exam the next time the course is offered.

**Rules for Exam Conduct by the Student (Candidate)**

1. Candidates are responsible for arriving at the examination room on time with adequate supplies (pens, pencils, erasers, calculator and current ID card) and may be admitted five minutes before the beginning of the examination. Upon
entering the examination room, candidates will refrain from talking to or communicating with other candidates. Candidates will read any posted Instructions concerning seating and other arrangements within the examination room. Candidates must place their ID card on the left corner of the desk.

2. No candidate may leave the examination room during the first thirty minutes of the examination.

3. Candidates must sign the nominal roll which will be circulated by the proctor during the first thirty minutes of the examination.

4. Candidates arriving later than thirty minutes after the commencement of the examination will not be allowed to write the examination. Under such circumstances candidates should proceed to the Dean of their Faculty for instructions. In the case of evening or Saturday examinations, candidates should proceed to the Department of Admissions and Academic Records for instructions.

5. Candidates prevented from writing an examination by circumstances such as illness, or death in the family shall submit a written petition to the Dean of their faculty. A petition made because of illness should be accompanied by a medical certificate stating the time and duration of the illness, a petition for other reasons should be supported by evidence from a responsible person acquainted with the circumstances.

6. Candidates are forbidden to give information or to receive it from any other candidate during the examination.

7. Candidates will not make use of any books, notes, diagrams or other aids, unless authorized by the examiner, such authorization being clearly stated on the question paper. Candidates who bring any unauthorized notes, books or other aids into the examination room must leave them in an area designated by the Chief Proctor.

8. Smoking is not permitted in the examination room.

9. In the case of an emergency, candidates will be permitted to leave and re-enter the examination room only if accompanied by a proctor. Candidates may be granted permission to move to another available seat if they can provide a legitimate reason.

10. Candidates are responsible for ensuring that they receive the proper question paper.

11. Candidates will use only the approved answer form supplied (question paper, markex card, or answer booklet). When answer booklets are employed, candidates will use them even for rough work and will not write on any other paper. Pages will not be removed from answer books. Candidates must keep all papers on their desk.
12. Candidates who require additional answer books during the examination will not leave their seat but will attract the attention of the proctor by raising a hand.

13. Any suspected irregularities in the question paper or any unusual distractions in the vicinity of the candidates should be brought to the attention of the proctor (Senate, May 23 2958).

14. Upon completion of the examination, candidates will ensure that their student number, name, course number, book number and total number of books, and the name of the instructor are lettered legibly on all answer books. If more than one book has been used they should be numbered consecutively and placed inside Book 1. No answer books or parts of answer books will be taken from the examination room.

15. Candidates will not be allowed to leave the examination room during the last fifteen minutes. Under no circumstances including late arrival, will the time beyond the designated period be extended.

16. At the conclusion of the examination, candidates will remain seated until a proctor has collected their completed examination booklets. CANDIDATES WHO LEAVE THE ROOM AND NEGLECT TO SIGN THEIR NAME AND SUBMIT THEIR COMPLETED BOOKLETS TO THE PROCTOR WILL BE CONSIDERED AS NOT HAVING WRITTEN THE EXAMINATION.

17. For all tests and exams, it is the policy of the Department of Physiology and Pharmacology that any devices with a battery (e.g. cell phone, tablet, camera, watch, smart watch, ipod) are strictly prohibited. These devices MUST be left either at home or with the students bag/jacket at the front of the room and MUST not be at the test/exam desk or in the individuals pocket. Any student found with one of these prohibited devices will receive a grade of zero on the test or exam.

PLEASE NOTE:

All exam answer sheets are subject to a common data analysis, which identifies anomalies of statistical significance in the selection of right and wrong answers by pairs of students. The course instructor is required to report all statistically significant results, which suggest that cheating may have occurred. All such incidents will be subject to further investigation. All proven cases of cheating will be subject to severe academic penalties. If you are seated near someone with whom you studied, and you think you may choose many of the same answers as that person, please raise your hand and ask a proctor to reseat you for the exam.

STUDENTS MAY OBTAIN A COPY OF THESE REGULATIONS AT THE DEPARTMENT OF ADMISSIONS AND ACADEMIC RECORDS.