

BIOC32F: Human Physiology
SYLLABUS



Fall 2013

Instructor: Professor Joanne Nash

Overview:

Physiology may be defined as the study of the functions of living organisms. BIOC32 will address how organs and systems within the human body perform their functions at the molecular and cellular level, and the impact of these functions on the entire human body. This course will also cover how and why the human body fails in certain pathological or diseased states, and how this impacts the organism as a whole. The following topics will be covered: neurons, the special senses, the central nervous system, the endocrine system and the immune system.

Objectives:

The primary objective is to provide a solid understanding of the topics covered in this course. This course also aims to help students understand how research in the laboratory – both modern day and historically, leads to understanding of the functions of the human body, and how the latest scientific technologies are being applied to further understand the workings of the human body.

A variety of evaluation techniques will be employed to encourage student participation in class and to assess the course material covered. To help understand how scientific technologies are used in physiology, students will be introduced to peer-reviewed research articles, taught how to read and understand these articles, then produce a written assignment to demonstrate their newly acquired skills.

I hope you enjoy taking this course!

Prerequisites: BIOB34H3 or NROB60H3

Exclusions: (BIOB30H3), PSL300H

Teaching Assistants: Sherri Thiele (sher.thiele@gmail.com) and Sahara Khallেমudah cs.khademullah@mail.utoronto.ca

Course e-mails:

Lecture content-and course-related questions: cs.khademullah@mail.utoronto.ca

Tutorial assignment-related questions: sher.thiele@gmail.com

Please do not email Dr Nash directly. If Sherri and Sahara are unable to answer your question it will be forward to myself and I will respond directly to the student.

Communication Information: Course announcements, communications and lecture outlines will be available on the BIOC32 course page. Lecture outlines will be the day before. Videocaptures of the lectures will be posted 24 hours after the lecture. Except on weekends, emails will be answered with 48 hour of receiving them. For questions that require longer answers, please try and attend office hours, or arrange an alternative appointment with Dr Nash or one of the TAs. When the same questions are asked more than once, these will be posted as frequently asked questions on the intranet.

Office hours:

COURSE CONTENT-RELATED QUESTIONS: Thursdays 12 – 2pm in S532

TUTORIAL ASSIGNMENT-RELATED QUESTIONS: Friday 3 – 4pm in S532

iClickers: bring to class and tutorials as attendance will be taken using iclickers. They will also be useful for answering questions in class (no mark contribution for answering questions). If you do not wish to purchase an iClicker, bring your student card to my attention at the end of class and I will make a note that you attended that lecture.

Textbook: Human Physiology (author Silverthorn). Pub Pearson Benjamin Cummings . Any edition is OK.

Lectures: Tuesdays and Thursdays: 9 – 10 am AC223.

Tutorials: Fridays 2 -3pm.

Videocaptured lectures: BIOC32 is not a WebOption course. The videocaptured lectures are intended solely as study aids.

Tutorial Information

First Tutorial

Friday Sept. 13th: In the first tutorial, the tutorial-based assignment will be described. You will also receive information that will help to understand and critique research articles. Attendance to the first tutorial on Friday Sept 13th is mandatory. Attendance will be recorded using iClickers.

Exam Review Tutorials

The very last tutorial (November 28th) and a lecture prior to the midterm have been reserved for the review of course material. The date of the review tutorial pre-midterm will be determined once the dates of midterms have been announced.

Remaining 8 tutorials and the written assignment.

For the remaining 8 tutorials, the class will be divided into groups of approx. 30 – 40 students. Students will attend only one of these 8 tutorials, and attendance will be taken for this class (1%). The format of each tutorial will be exactly the same each week.

Prior to the tutorial students must read the “research article for tutorial assignments” by Kravtiz et al. At the beginning of the tutorial there will be a pop quiz consisting of 10 questions (the questions will be different each week). The pop quiz is worth 4% of your final mark. The purpose of the quiz is to check that you have read the article, so the questions will not be in-depth and are multiple choice. The TA will give a presentation on the article by Kravtiz et al. Students will then be divided into groups of 4 to discuss the article further. Discussions will be aided by following the ‘Evaluation of Research Articles’ document.

Students will submit a critique of the research article fourteen days after attending the tutorial onto the course page using turn-it-in (14% of final mark). Critiques will be written individually. The critiques should be no more than 2 pages long (single sides), times new roman font, size 12, double spaced. The critiques should be written following the guidelines given by the TA. Tutorial assignments will be submitted electronically using Turnitin.com in Blackboard

Course Evaluation

Evaluation: The assignments and tests for BIOC32 have been designed to ensure that the objectives of the course are met. Tests and the final will be multiple choice. Only material covered in the lectures and tutorials will be included in the exam. Material in the text book that is not covered in the course will not be included.

Distribution of marks PLEASE READ BELOW FOR MORE INFORMATION:

Midterm: 25%

Final exam: 50%

Pop Quiz on research article (in tutorial): 4%

Tutorial assignment research article critique: 14%

Attendance to tutorials: 2%

Attendance to lectures 6 – 24: 5%

Further details of assignments and exams:

Midterm exam (held during a scheduled term test time): 25%

Test length: 2 hours. Will cover Lectures 1 – 12. I have requested that this exam be held on the weeks beginning October 21st or October 28th.

Final Exam: 50%

Exam length: 2 hours. Multiple choice. Will cover the entire course.

Pop Quiz in Tutorial: 4%

Tutorial Assignment: 14%

Attendance to Tutorials: 2% (Sept 13th and tutorial assignment slot ONLY, 1% for each)

Attendance to Lectures 6 – 24: 5% (equal weighting of marks for all lectures)

Missing Midterms: If you miss one of the term tests, and submit sufficient medical documentation stating this, the weight from the term test(s) will be shifted to the final. There will be no make-up opportunities. Please notify Dr Nash know within 3 days of missing the test submit medical documentation as soon as you can.

Course Outline Summary*

Lecture	Date	Topic	Chapter (Silverthorn)
1	September 3rd	Introduction and how to design an experiment	1
2	September 5th	Excitable cells	5,8
3	September 10th	Action Potential (1)	8
4	September 12th	Action Potential (2)	6,8
5	September 17th	Chemical Synapse (1)	8
6	September 19th	Chemical Synapse (2)	8
7	September 24th	Neuronal Integration (1)	9
8	September 26th	Neuronal Integration (2)	9
9	October 1st	CNS (1)	9
10	October 3rd	CNS (2)	9
11	October 8th	CNS (3)	9
12	October 10th	CNS (4)	10
Oct 15 th – 18 th READING WEEK			
13	October 22nd	The Special Senses (1)	10
14	October 24th	The Special Senses (2)	10
15	October 29th	The Special Senses (3)	10
16	October 31st	The Special Senses (4)	10
17	November 5th	Autonomic and Somatic control	11
18	November 7th	Endocrinology (1)	22 - 23
19	November 12th	Endocrinology (2)	22 - 23
20	November 14th	Endocrinology (3)	22- 23
21	November 19th	Endocrinology (4)	22- 23
22	November 21st	Immunology (1)	24
23	November 26 th	Immunology (2)	242
24	November 28 th	Immunology (3)	24

* Disclaimer: The above schedules, procedures and policies are subject to change in the event of extenuating circumstances.

Other Important Information

Important Dates:December 5th 2013

Last day to drop the course

December 6th – 20th 2013

Examination period

Academic Integrity: Please refer to <http://www.governingcouncil.utoronto.ca/policies/behaveac> for the University of Toronto's Code of Behaviour on Academic Matters. Potential offences include, but are not limited to:

In Tests and Exams: to use or possess an unauthorized aid or to look at the answers of another student's exam; misrepresentation of identity.

Medical Notes and other Official Documentation: Falsification or alteration of documentation required by the University.

AccessAbility Information: Please let me and / or AccessAbility services know if you require any accommodations to ensure that you achieve your learning goals in this course. AccessAbility services is located in SW302 (tel: 416-287-7560; email: [ability@utsc.utoronto.ca/ability](mailto:ability@utsc.utoronto.ca)), where you can arrange appointments to assess and accommodate your specific needs. Enquiries are confidential.

Turnitin.com: Normally students will be required to submit their tutorial assignments using Turnitin.com for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their assignments to be included as source documents in the Turnitin.com reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of the Turnitin.com service are described on the website. Turnitin.com is most effective when it is used by all students in a particular course; however, if and when students object to its use on principle, a reasonable offline alternative must be offered. There is a wide variety of non-electronic methods that can be used to deter and detect plagiarism; for example, to require that all rough work is handed in with the paper or that the student include an annotated bibliography of the paper. Instructors may wish to consult with the Centre for Teaching and Learning Support & Innovation when establishing these alternatives.