University of Toronto Scarborough – Department of Biological Sciences

# BIOB35 – Essentials of Human Physiology – Winter 2020

Course Instructor: Dr. Jason Brown

Email: nysuloem.brown@utoronto.ca

Office: HL320

Office Hours: Mondays 2:30-5:30pm

Wednesdays 9:30am-12:30pm

\*\*I am also available to answer questions after class

Teaching Assistants: Kirthana Sathiyakumar

Email: sankirthana.sathiyakumar@mail.utoronto.ca

**Avesh Chadee** 

Email: avesh.chadee@mail.utoronto.ca

**Course Description:** An exploration of the normal physiology of the human body. Emphasis will be placed on organ systems associated with head and neck, especially nervous, respiratory, muscular, digestive, cardiovascular, and endocrine. The interrelationship among organ systems and how they serve to maintain homeostasis and human health will also be discussed.

**Prerequisites:** BIOA01H3, BIOA11H3, or Grade 12 Biology

Exclusions: BIOC32H3, BIOC33H3, BIOC34H3, PSL201Y1, BIO210Y5

Lectures: Wednesdays 2:10-5:00pm, SW128

NOTE: We will use the last 30 minutes of each lecture (i.e., from 4:30-5:00pm) to review any topics that students identify as challenging.

#### Tentative Lecture Topics:

- 1 Respiratory Physiology (includes Speech Physiology)
- 2 Digestive Physiology (includes swallowing)
- 3 Nervous Physiology (includes Auditory Physiology)
- 4 Muscular Physiology
- 5 Circulatory Physiology
- 6 Endocrine Physiology

Lecture notes will be posted (<u>in PowerPoint format only</u>) on Quercus ~ 48 hours before each lecture. NOTE: I reserve the right to make changes to the lecture notes after they are posted.

**Textbook:** There is no required textbook for this course; however, in my experience, many students enjoy having a textbook to supplement their lecture notes. If you so desire, I would recommend the following textbook:

Essentials of Human Anatomy and Physiology, 2017, by E. N. Marieb et al.

→ This book is available at the UTSC Bookstore.

I will post *suggested readings*, where applicable, from this textbook; however, this textbook may discuss material not covered in class, and I may discuss material in class not covered by the textbook. *You are only responsible for the material covered in class*.

#### **Evaluation:**

Term Tests 35% (20% best; 10% worst) Social Media Connections 30% (2.5% x 12 posts)

Final Exam 35%

## **Important Notes Regarding Evaluations:**

#### **Term Tests**

There are two Term Tests in this course, which are held outside of class time. The dates and times of the Term Tests will be determined by the Registrar's office during the first few weeks of the semester, and I will post this information on Quercus as soon as it is available.

Term Tests may examine any material covered in this course, but the lectures emphasized on each Term Test will be announced in class and on Quercus. Term Tests will be 2 hours and will comprise of multiple-choice questions only. Students will have choice with regards to which questions they answer (e.g., answer 20 of 25 multiple choice questions). The Term Test questions will require students to think critically and creatively about the lecture content as students will be expected to explain novel observations and solve problems. This approach will encourage students to develop a deeper understanding of human physiology but, more importantly, will also foster competency for scientific thinking, reasoning, and inquiry, all of which will be essential in the kinds of health care careers that students taking this course are interested in pursuing.

To help students prepare for the Term Tests, optional quizzes (here optional means not worth any marks) will be posted on Quercus each week. Students are strongly encouraged to discuss these quizzes with the course instructor when they encounter any difficulties, either by email or during office hours (*preferred*).

If you know in advance that you cannot write a Term Test at the scheduled time because it conflicts with some other valid activity, please notify the course instructor as soon as possible so that arrangements can be made for you to write the Term Test at an alternative time. Any such alternative time must be before the scheduled date of the Term Test.

If you miss a Term Test due to medical illness, then you must submit a detailed UTSC Medical Certificate filled out by the physician who saw you on the day of the Term Test. This note must

be submitted to Jennifer Campbell (course coordinator, Biological Sciences; jac.campbell@utoronto.ca) within three days following the Term Test, whether in person or via email, or it may be declined. Other medical notes will not be accepted, and if the UTSC Medical Certificate is not completed to Jennifer's satisfaction, it may be refused. The UTSC Medical Certificate can be found via the following link:

### http://www.utsc.utoronto.ca/~registrar/resources/pdf general/UTSCmedicalcertificate.pdf

If you miss a Term Test for any other valid reason, please consult with the course instructor as soon as possible. The course instructor will determine whether the reason given for a missed Term Test is valid in accordance with university policies. Also, the course instructor may ask for any documentation required to verify the reason given.

Students who miss one Term Test for a valid reason (medical or otherwise) will not be permitted to write a make-up Term Test; rather, the weight of their Final Exam will be increased by 10%. (The weight of their remaining Term Test will be 25%).

Students who miss both Term Tests for valid reasons will not be permitted to write make-up Term Tests; rather, the weight of their Final Exam will be increased by 35%.

Students who miss a Term Test for any invalid reason will receive a grade of zero for that Term Test.

#### **Social Media Connections**

This course was originally conceived so that students in the Specialist Program in Psycholinguistics could meet their requirements for a general human physiology course; however, it seems that this course has attracted students from a wide variety of programs. The purpose of the Social Media Connections assignment is to provide students with an opportunity to integrate their existing knowledge of psycholinguistics (or other programs) with their newfound knowledge of human physiology. In doing so, they will come to appreciate the relevance of human physiology to their particular area of study (and their instructor will come to appreciate the relevance of their particular area of study to human physiology).

Within one week following each lecture, students (working alone or in pairs) will make a social media post (on any social media platform) that illustrates how a particular topic learned in that week's lecture is relevant to some aspect of their particular program. In demonstrating the relevance of the topic to their program, students should link to an article—from some reputable source, including newspapers, magazines, research journals, etc. Their post should include a brief, but original, explanation of how their article links human physiology to their particular program, a relevant picture, to make their post visual appealing to their audience, and hashtag that relates to their particular program. An example of a Social Media Connection is posted on Quercus for reference.

Social Media Connections will be submitted via Quercus. Students can either upload a link to their post or a screenshot of their post. Social Media Connections will be evaluated on a satisfactory/unsatisfactory basis. They will be considered satisfactory so long as they have met the

above-stated requirements and are of a calibre expected of a 2<sup>nd</sup>-year student at UTSC. Each satisfactory Social Media Connection will earn a student 2.5% of their final grade. Students whose Social Media Connection is deemed unsatisfactory, or students who fail to submit their Social Media Connection for a given week by the above-mentioned deadline, will have the weight of their missed assignment shifted to their Final Exam. Consequently, students who fail to submit a given Social Media Connection are not required to submit any documentation, medical or otherwise.

## **Final Exam**

The Final Exam will be scheduled by the Registrar's office (April 8-25). It will be 3 hours and will cover all course material, though it will place emphasis on the material discussed since the last Term Test. It will have the same format as the Term Tests.

## **Accessibility Needs:**

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the AccessAbility Services Office as soon as possible. I will work with you and AccessAbility Services to ensure you can achieve your learning goals in this course. Enquiries are confidential. The UTSC AccessAbility Services staff (located in S302) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations (416) 287-7560 or ability@utsc.utoronto.ca.

#### **Academic Integrity:**

Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. The University of Toronto's *Code of Behaviour on Academic Matters* (http://www.governingcouncil.utoronto.ca/policies/behaveac.htm) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. Potential offences include, but are not limited to:

In papers and assignments: -using someone else's ideas or words without appropriate

acknowledgement

-submitting your own work in more than one course

without the permission of the instructor

-making up sources or facts

-obtaining or providing unauthorized assistance on any

assignment.

On tests and exams: -using or possessing unauthorized aids;

-looking at someone else's answers during an exam or test

-misrepresenting your identity

*In academic work:* -falsifying institutional documents or grades

-falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. There are other offences covered under the Code, but these are the most common. *Please respect these rules and the values that they protect.* 

## **Copyright in Instructional Settings:**

If a student wishes to audio-record, photograph, video-record, or otherwise reproduce lecture presentations, course notes, or other similar materials provided by instructors, he or she must obtain the instructor's written consent beforehand. Otherwise, all such reproduction is an

infringement of copyright and is absolutely prohibited. In the case of private use by students with disabilities, the instructor's consent will not be unreasonably withheld.