

## BIOL 2035 Human Physiology Survey Syllabus

**Instructor:** Sean Madorin

**Contact Information:** [wsmador1@lakeheadu.ca](mailto:wsmador1@lakeheadu.ca)

**Textbook and Resources:** Given the short time frame for delivery of this course (July 2 – August 13), I have decided to use an Open Access resource. This can be accessed at the link below. The text is downloadable as a PDF and the table of contents links to each section (if you click on section 10.14 in the TOC, it will take you to the start of the section). It is a good text though it has a few small errors – I will point them out as they come up.

- OpenStax Anatomy & Physiology (<https://openstax.org/details/books/anatomy-and-physiology> )

Throughout the course, I may direct you to other resources for more information, or for an activity to help you connect to the material.

**Course Delivery:** This is an online course that is to be delivered in a largely asynchronous manner; that is, you can move along at your own pace for most of the course. The evaluation scheme for the course is comprised of three exams (90% of the final grade in total) and quizzes (10% of the final grade). The quizzes can be done at your convenience but the exams will be available at a set date and time (see the proposed curriculum plan below).

**Asking Questions:** Hopefully my presentation of the material in this course will be clear and will make sense to you, but if it doesn't make sure that you ask questions of me and of your colleagues in the course. If you don't have questions about the course material but have other questions, please share with me. I love Physiology and will do my best to find you an answer!

If you would like to meet at set times as a group, I am happy to run tutorial sessions (synchronously) to address any questions or concerns that you might have (through WebEx or Zoom).

**Meeting with me:** In the non-COVID, not online world, I keep my door open and try to address questions or concerns as soon as I can. If you would like to meet individually to discuss any questions or concerns, please contact me by email and I will get back to you as soon as I can to connect.

### Proposed Curriculum

Unit	Content	Reading (Chap)	Exams / Quiz	Date (Weight)	
1 Neuro	Organization	13.2 13.4	1		
1 Neuro	Neurons	12.2 - 12.5	2		
1 Neuro	Sensory – somatic	14.1 14.2			
1 Neuro	Motor – somatic	14.3	3		
1 Neuro	Motor – ANS	15.1 15.2 15.3? 15.4?	Midterm 1	July 20 (25%)	Unit 1

2 Muscle	Muscles	10.1 - 10.5 10.6?				
2 Muscle	Control - CNS, Reflexes	14.3 ++, 16.4?	4			
3 CV	CV Physiology	19.1 - 19.4	5			
3 CV	Blood Flow / BP Reg	20.1 20.2 20.4		Midterm 2	Aug 3 (35%)	Units 2 & 3
4 Resp	Ventilation	22.2 22.3				
4 Resp	Gas Exchange & Transport	22.4 22.5	7			
5 Renal	Kidney Function	25.3 - 25.7	8			
5 Renal	Fluid, pH & EL Balance	25.8 25.10 26.1 - 26.4				
				Test 3	Exam Period? (30%)	Units 4 & 5

I have posted a spreadsheet with a more detailed plan of content. My plan is to deliver most content through screencasts and to have you do activities to help you make sense of the material and connect it to your experiences. I try to limit the screencasts to about 10 minutes in length. The spreadsheet is a work in progress but should give you a good idea of what to expect in the course.

### Evaluation Scheme

Test 1 - 25%

Test 2 - 35%

Test 3 - 30%

Quizzes - 10%

The exams are non-cumulative but the integrative sections in Unit 2 (Control of Muscle Activity) and Unit 5 (Regulation of Fluid, electrolytes (EL) and pH) will require to apply some knowledge from Units 1 and 3 respectively. As indicated above, exams will be written on set dates at set times. Quizzes will be open

to complete when you have done each unit or part unit. In the proposed curriculum above, the quizzes are colour-coded. Quiz 1 (yellow) will be on the Organization of the Nervous System.

**Evaluation Format**

Quizzes - 15 multiple choice questions (MCQ)

Exams - approximately 80% of the exams will be MCQ; the remainder will be Short Answer questions (assuming I can do this in D2L)