

**SC BIOL4510 / HH KINE4510**  
**Cellular and Molecular Basis of Muscle Physiology**  
**7:00 – 10:00 pm**  
**Tuesday – LSB 103**  
**Fall 2015**

Dr. Robert Tsushima – Course Director (sensei@yorku.ca)  
Farquharson Building, Room 333A

Dr. Roozbeh Sobbi - r.aschar.sobbi@utoronto.ca

## **Course Outline**

1. Introduction
2. Cardiac Physiology
3. Cell Biology: Structural and Morphological Properties of Cardiac Myocytes
4. Contractile Proteins
5. Sarcoplasmic Reticulum
6. Ion Channels, Exchangers and Pumps
7. Excitation-Contraction Coupling
8. Cell Signalling Regulation of Heart Function
9. Embryonic Basis of Heart Development
10. Stem Cells and Regenerative Medicine
11. Circadian Rhythms/Aging

## **Textbook**

There is no assigned textbook. All material (lecture notes, reading material) will be posted on Moodle.

## **Office Hours**

By appointment only

**Students must schedule an appointment in advance by email at sensei@yorku.ca.**

## Survival Guide for BIOL4510/KINE4510

1. READ/REVIEW the lectures notes PRIOR to class
2. Ask questions during the class. I will NOT answer questions immediately after the class.

*At 10:00 pm, I'm outta here!*

3. REVIEW/STUDY notes well in advance of exams. I do NOT meet with students on the day of exams and will not answer questions after 5:00 pm the day before any test.

## Marking Scheme

Midterm Test 1 25%

**TUESDAY OCTOBER 13** (in class)

Material covered from September 15 – September 29

Midterm Test 2 25%

**TUESDAY NOVEMBER 10** (in class)

Material covered from October 6 – October 27

**Any requests for remarking of exams must be dealt with by the Course Director within 14 days of the item being returned. Any discrepancy after that period will not be considered. Any exam written in pencil or where liquid paper was used will be not re-evaluated.**

**There are no deferred midterm exams.**

*Anyone who misses a midterm exam and receives approval from the Course Director, the percent weighting and material from the missed midterm will be put on the Final Exam.*

Written Assignments 15%

Students will be required to read research papers and submit written summaries of the papers – due before class.

**5% deduction/day for late assignments**

Final Examination 35%

Non-cumulative (**\*\*\*except for those students who missed any midterm tests**)

Material covered from November 3 – December 1

Please note the exam date is determined by the Registrar's Office not me!

The format of all exams will be:

- One word or short answers
- Label diagrams
- One page answers

There will be no sample exams posted, so please do not ask me for any.

## Policy on Missed Midterm Tests and Final Examinations

Midterm exams are **not** optional.

**1)** The student must contact the Course Director in person by email within **48 hours** of the missed examination. The student must clearly state the following:

- full name
- student number, course and section
- reason for missing the test

**2)** If the student cannot contact the course director during this 48-hour period, documentation in writing accounting for the delay **must** be provided.

**3)** Appropriate documentation verifying the circumstances for the missed test or examination must be provided within **two weeks** following the missed test. Failure to provide appropriate documentation to the course director will result in a grade of zero for the missed test.

*What is appropriate documentation?*

**a) Medical circumstances** – exams missed due to medical circumstances must be supported by an attending physician's statement or a statement by a psychologist or counselor. The physician's statement **must** include the following:

- i. full name, mailing address, telephone number of the physician.
- ii. state the nature of the illness and its duration (i.e., specific dates covered), and
- iii. an indication of whether the illness and/or medication prescribed would have **SERIOUSLY** affected the student's ability to study and perform over the period in question.

**NOTE:** the physician's office may be contacted to verify that the form was completed by the physician.

**b) non-medical circumstances** – exams missed due to non-medical circumstances must be supported by appropriate documentation, i.e., death certificates, obituary notice, automobile accident reports, airline/bus ticket/receipt for emergency travel (with date of booking on ticket), etc. Airline/train/bus ticket/receipts for emergency travel must indicate destination, departure, and return dates. Having to work at the time of the exam or forgetting the room number are not considered to be valid excuses for missing the exam.

**4)** The manner in which the missed test (which has been legitimately documented) is handled will be at the discretion of the course director.

**\*\*\*** You should be aware that if you miss the tests before the official drop date, you will not have the requisite 10% feedback on your course work to determine if you need to drop the

course or not. As a result, it is in your best interest to write the tests at the time they are scheduled by the course director.

## **University Policy on Academic Honesty**

*“Academic honesty requires that persons do not falsely claim credit for the ideas, writing or other intellectual property of others, either by presenting such works as their own or through impersonation. Similarly, academic honesty requires that persons do not cheat (attempt to gain an improper advantage in an academic evaluation), nor attempt or actually alter, suppress, falsify or fabricate any research data or results, official academic record, application or document. Finally, academic honesty requires that persons do not aid or abet others to commit an offence of academic dishonesty, including intentional acts to disrupt academic activities.”*

See <http://secretariat-policies.info.yorku.ca/policies/academic-honesty-senate-policy-on/> for more information on York University policies and penalties on plagiarism and academic honesty.

**BIOL4510/KINE4510  
COURSE LECTURE SCHEDULE – FALL 2015**

**TUESDAY 7:00 – 10:00 pm  
LSB 103**

September 15	Course Introduction Introduction to Cardiac Physiology/Cell Biology
September 22	Contractile Proteins – <i>Dr. Sobbi</i>
September 29	Sarcoplasmic Reticulum – <i>Dr. Sobbi</i>
October 6	Ion Channels
<b>October 13</b>	<b>MIDTERM 1</b> <b>(Lectures September 15 - September 29)</b>
October 20	Exchangers – Pumps – Channelopathies
October 27	Excitation-Contraction Coupling
November 3	Cell Signalling
<i>November 9</i>	<i>Last day to drop courses without receiving a grade</i>
<b>November 10</b>	<b>MIDTERM 2</b> <b>(Lectures October 6 – October 27)</b>
November 17	Embryonic Heart Development
November 24	Stem Cells & Regenerative Medicine
December 1	Circadian Rhythms & Senescence
<b>TBA</b>	<b>FINAL EXAM</b> <b>(Lectures November 3 – December 1)</b> <i>The final exam is scheduled by the Registrar's Office. I have no input on the time or date of the final exam.</i>