

CELL BIOLOGY

Biology 2230WA

COURSE OUTLINE WINTER 2020

Instructor

Dr. Heidi Schraft
Biology, CB4015
Phone: 343-8351
Email: please contact me through the **email link in the D2L course page**.

Office hours

Monday and Wednesday: 9 – 10 am
My office is in Centennial Building, Room CB4015.

Teaching Assistants

Xuantong Chen (Tong)
Email: xchen24@lakeheadu.ca

Tyler Ripku
Email: tjripku@lakeheadu.ca

Lectures and Tutorial

Lectures: Monday and Wednesday: 5:30 – 7 pm, ATAC 1001
Tutorial: Tuesday 10:30 – 11:30 am, ATAC 2001

Textbook and i>Clicker

Textbook: Molecular Cell Biology by Lodish et al, eighth edition (hardcopy or ebook, available in the bookstore)

There will be required reading from the book. I strongly recommend that you have a book available to you throughout the semester.

LaunchPad is included with the textbook and strongly recommended as it will be used for on-line assignments and quizzes.

i>Clicker REEF or i>Clicker2 Remote:

In addition to the book, you will need an i>Clicker2 remote or the i>Clicker REEF app with a subscription. The i>Clicker REEF app is included with the textbook or you can purchase it on-line.

The bookstore sells i>Clicker2 remotes or you may be able to buy a used i>Clicker2 remote from another student.

For additional information, please refer to the iClicker section on the D2L course site.

Learning Objectives

- Recognize, name, draw, and describe important structures of animal and plant cells.
 - Describe, explain, discuss, and compare important functions and processes of animal and plant cells.
 - Describe and explain experimental approaches used to discover and explore the structures and functions of cells.
 - Explore opportunities for advanced studies in cell and molecular biology through Lakehead's 3rd and 4th year courses.
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- Demonstrate an understanding of the principles of scientific inquiry.
 - Demonstrate the ability to think critically and employ critical thinking skills.
 - Read and interpret graphs and data.
 - Demonstrate the quantitative skills needed to succeed in Biology.
 - Demonstrate the ability to make connections between concepts across Biology.
 - Demonstrate the ability to find peer reviewed publications, understand their structure and extract information needed to expand knowledge on a specific topic in cell biology.
 - Communicate effectively in writing.

Please refer to the lecture schedule for topics covered and to the study guides posted in Desire2Learn (D2L) for each topic's Learning Objectives.

DESIRE2LEARN – D2L

You will have access to a course page through Desire2Learn (D2L) where you'll find course updates, slides discussed during class, assignments, links to selected web-sites, etc.

To log into your course website:

1. Go to <https://mycourselink.lakeheadu.ca/d2l/home>
2. Enter your Login/ID (your Lakehead University e-mail username) and your Password/PIN number.
3. Click on the course title to enter the course.

If you encounter any difficulties logging into the course site, please contact:

mycourselink@lakeheadu.ca

LAUNCH PAD

Launch Pad is strongly recommended, but optional.

If you opt out of Launch Pad, the percentage of the grade associated with Launch Pad LearningCurve and ConceptCheck will be allocated to the three mid-term tests.

To participate with Launch Pad, you need to register at:

<https://sites.google.com/macmillan.com/biol2230w20schraft/home>

The LaunchPad Course information is:

Cell Biology Winter 2020

Instructor: Heidi Schraft

Course: BIOL 2230

Section: WA

You are required to **declare whether or not you will take the course with or without Launch Pad by Sunday, January 19, 2020**. Please see D2L for more information.

i>Clicker

I will be using the i>Clicker student response system in class. i>Clicker helps me understand what you know and gives everyone a chance to participate in class. Participation with i>Clicker will account for **5% of your final grade**. I will drop the 2 lowest scores to account for times you are not able to come to class or forget to bring your clicker to class.

To receive credit for the responses you submit to i>Clicker sessions, you **must register by Sunday, January 19, 2020**. Students who register after this date will not receive credit.

Troubleshooting:

You can find the answers to many of your questions on the iClicker [student support](http://iclicker.com/student-support) site (iclicker.com/student-support). If you continue to experience issues, please contact support via phone (866.209.5698) or email (support@iclicker.com). Live support is available Monday - Thursday from 9AM - 11PM, ET and Friday from 9AM - 9PM, ET.

Academic Integrity:

I consider bringing a fellow student's iClicker remote to class and/or submitting responses on behalf of another student to be cheating and a violation of the Student Code of Conduct – Academic Integrity. If you are caught with a remote other than your own or have votes in a class that you did not attend, both you and your classmate will forfeit all clicker points for this course and may face additional disciplinary action.

For additional information, please refer to the iClicker section on the D2L course site.

Performance Evaluation

Activity	Weight	
	With Launch Pad	No Launch Pad
Class participation (i>Clicker)	5%	5%
Launch Pad Learning Curve	8%	0%
Launch Pad Quizzes	12%	0%
Literature Assignment	10%	10%
Mid-term tests	35% (11.6% each)	55% (18.3% each)
Final exam	30%	30%
Total	100%	100%

i>Clicker will be used regularly to encourage everyone's participation in the class. It is designed to generate student discussions, support your learning of course materials, and help me gauge how well the class understands the lecture material.

Launch Pad is an online resource included with the textbook. It is the on-line place where can read, study, and practice. I will be assigning Learning Curve and Concept Check Quizzes.

LearningCurve adaptive quizzing will give you question sets and feedback which are individualized based on your correct and incorrect responses. You will work through questions until you have earned 30 points. LearningCurve will be assigned for the **textbook reading before the content is covered in class**. All the questions are tied back to the e-book to encourage you to use the book. LearningCurve Quizzes will be due weekly on Sundays at Midnight.

Concept Check Quizzes are intended to help you prepare for tests. The questions are similar to those in LearningCurve, but quizzes will have a set number of questions with a limited time to complete each quiz. Correct answers will not be shown. After the due date, quizzes will be available for further practice (scores don't count).

The **Methods Assignment** is based on the on-line tutorial "Reading Primary Literature in Biology". Please refer to D2L for more info, including detailed assignment descriptions and expectations.

Mid-term tests will be 45 minutes in length and consist mostly of multiple choice, fill-in-the blank, labelling questions. These will be similar to the questions of LearningCurve and ConceptCheck Quizzes. However, there will be at least one "long answer question" on each test. The dates are listed in the lecture schedule.

The Final Exam will be 3 hours. It is cumulative using the same format as the Mid-term tests. The date will be set by Enrolment Services.

Missed Exams, Late Assignments and Extensions

As this is a very large class, I have limited capability to accommodate missed exams, late assignments or extensions.

- There will be no extensions on any LaunchPad Assignments and Quizzes.
- I will also not give extensions for the Methods Assignment. I will accept late assignments, but for each day after the due date, 5% will be deducted from the assignment grade.
- If you **miss a mid-term test**, you may only write a make-up test if you **inform me prior to the test and provide originals of supporting documentation within 48h of the missed test**. If required, there will be one date for a make-up test and no make-up test can be written after the test papers have been returned to the class. This also applies to students registered with SAS.
- If you miss the final exam, you need to follow the protocol required by Enrolment Services. You can find it in the Calendar: [University Regulations](#) (scroll to Section IV Examinations)

However, if you do run into **time constraints or other difficulties during the semester**, I encourage you contact me (please use the D2L email for this), and I will work with you to find a solution.

Accommodation for Disabilities

Lakehead University is committed to achieving full accessibility for persons with disabilities. Disabilities include physical disability, learning disability, mental disorder etc.

Part of this commitment includes arranging academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all of their academic activities. If you think you may need accommodations, you are strongly encouraged to contact Student Accessibility Services (SAS) and register as early as possible. For more information, please visit: <http://studentaccessibility.lakeheadu.ca>

Academic Integrity

A breach of Academic Integrity is a serious offence. The principle of Academic Integrity, particularly of doing one's own work, documenting properly (including use of quotation marks, appropriate paraphrasing and referencing/citation), collaborating appropriately, and avoiding misrepresentation, is a core principle in university study. Students should view the Student Code of Conduct – Academic Integrity – for a full description of academic offences, procedures when Academic Integrity breaches are suspected and sanctions for breaches of Academic Integrity.

This course will have a zero-tolerance for academic dishonesty and plagiarism. For further information, please refer to the [Student Code of Conduct Policies](#) and the Lakehead University [Calendar](#) (Section IX).

To help all students in the class understand application of Academic Integrity to course work, everyone will be required to complete the Academic Integrity module of this course. I will not grade any of your work unless you have completed the module.

Lecture Schedule - BIOL 2230 Winter 2020

	Date	Topic	Important Dates
Mon	Jan-6	Intro to the course	
Tue	Jan-7-Tut	Chapters 1, 2.1, 2.2 Overview of Cell Biology, Chemistry of the Cell	
Wed	Jan-8		
Mon	Jan-13	Chapter 2.3, 2.4 Chemical Reactions and Biochemical Energetics	
Tue	Jan-14-Tut		
Wed	Jan-15		<i>Jan. 17: Last day to add</i>
Mon	Jan-20	Chapter 3.1 to 3.4: Proteins and Enzymes	Jan. 19: Register i>Clicker Declare with/without LaunchPad
Tue	Jan-21-Tut		
Wed	Jan-22		
Mon	Jan-27	Chapters 3.5 and 4 Methods in Cell Biology	
Tue	Jan-28-Tut		Test #1 - Chapters 1 to 3
Wed	Feb 29		
Mon	Feb-03	Chapter 7.1 and 7.2 Biomembranes	
Tue	Feb-04-Tut		
Wed	Feb-05		
Mon	Feb-10	Chapter 11.1 to 11.6 Transport across Membranes	
Tue	Feb-11-Tut		
Wed	Feb-12		
	Feb 17 - 21	STUDY WEEK	
Mon	Feb-24	Chapter 12: Cellular Energetics	Feb. 24: Methods Assignment Due
Tue	Feb-25-Tut		Test # 2 - Chapters 4, 7, and 11
Wed	Feb-26		
Mon	Mar-02	Chapter 12: Cellular Energetics	
Tue	Mar-03-Tut		
Wed	Mar-04		<i>March 6: Last day to drop</i>
Mon	Mar-09	Chapter 13.1 to 13.3 Moving Proteins	
Tue	Mar-10-Tut		M
Wed	Mar 11		
Mon	Mar-16	Chapter 14.2 to 14.6: Vesicular Traffic, Secretion, and Endocytosis	
Tue	Mar-17-Tut		Test # 3 - Chapters 12 to 13
Wed	Mar-18		
Mon	Mar-23	Chapter 17.1 to 17.5 & 18.1 to 18.4: Microfilaments, Microtubules, and Intermediate Filaments	
Tue	Mar-24-Tut		
Wed	Mar-25		
Mon	Mar-30	Chapter 20.1 to 20.4 Integrating Cells into Tissues	
Tue	Mar-31-Tut		
Wed	Apr-01		

Note: Refer to LaunchPad for due dates of on-line LearningCurve Assignments and ConceptCheck Quizzes.