

**DEPARTMENT OF BIOLOGICAL SCIENCES
UNIVERSITY OF TORONTO SCARBOROUGH**

**Course Outline - Fall 2021
Cell Biology [BIOB10 LEC99]
Instructor: Dr. Jeneni Thiagavel**

Course Description

I'm super excited to welcome you to B10 this Fall. By the end of our course, I hope to help you look beyond all the details that is usually associated with cell bio and to help you appreciate the beauty of the molecular world!

Description of the course (from the calendar): This course is designed to introduce theory and modern experimental techniques in cell biology. Emphasis will be on eukaryotic cells. Structure and function of major animal and plant organelles will be covered. Subsequent topics include the role of the cytoskeleton. Plasma membrane and extracellular matrix will also be detailed in the context of cellular interactions with the environment.

Prerequisites: BIOA01H & BIOA02H & CHMA10H & CHMA11H

Exclusion: BIO240H, BIO241H, (BIO250Y)

Lectures:

Lectures will be pre-recorded and posted under 'Modules' on 'Quercus'. Lecture slides will be uploaded with the recording.

Lectures will be uploaded:
Thursdays [2 hours]

I will be posting 2 separate 1 hour lectures on Thursday (instead of two large 2 hour blocks). I will be providing more information about the lecture and tutorials in Lecture 1.

The Teaching & Course Administration Team

Instructor: Dr. Jeneni Thiagavel

Email: jeneni.thiagavel@utoronto.ca

- All e-mails must be sent from your UofT email and must include the course code in the subject line

Email me! I love hearing from you!

- All questions about general course administration should be directed to the course coordinator
- Office hours: One-on-one appointments on Zoom: Fridays *-email me to set up a time to chat!*

TAs:

Bona Mu – bona.mu@mail.utoronto.ca

Jerrica Jamison – jerrica.jamison@mail.utoronto.ca

- All e-mails must be sent from your UofT email and must include the course code in the subject line.

Course Coordinator: Jennifer Campbell

Email: jacampbell@utsc.utoronto.ca

- All questions regarding course administration, course pre-requisites and exclusions, exam scheduling, conflicts & viewings, missed exams, marks verifications and any special accommodations pertaining to medical illness, AccessAbility, religious observances etc. will be addressed by the course coordinator.

Course Website:

- The main source of information for BIOB10 is Quercus [<https://q.utoronto.ca/>].
- The course syllabus, schedule, and lecture slides can be found here. Also, important information about the course including the dates and locations of exams will be posted here.

Textbook [Optional]: Molecular Biology of the Cell [Sixth Edition].Alberts/Johnson/Lewis/Morgan/Raff /Roberts/Walter.

Assessments/ Exams

1. Cartoon/Comic Strip Assignment

- This is a fun assignment where you guys will be making a cute/funny cartoon or comic strip starring your favorite cell component.

I'll be providing you with more information about this assignment in Lecture 1

2. Midterm Test

- This test covers lectures 2-12 (inclusive)
- The midterm test will be online [Quercus]
- Date & Time: TBD by the registrar's office

3. Final Exam

- This exam will test content covered in lectures 2-24 (inclusive).
- The final exam will be online [Quercus]
- Date & Time: TBD by the registrar's office

4. Study Strategies Activities

I hope to help you become effective learners by the end of BIOB10. To help you discover what study strategies work best for you, there are 3 study strategy activities you will be required to complete throughout the term.

I'll be providing you with more information about this assignment in Lecture 1

5. Integrative Poster Project [BIOB90]

BIOB10 is one of the participating courses for enrolling in the BIOB90 which is a graduation requirement for students who have been accepted into a biology program as of August 2020, or intend to subject post to a biology program after August 2020. The B10 grading schemes below show the breakdown with and without B90.

Without BIOB90:

Description	Weight
Cartoon/Comic Strip Assignment	20%
Midterm Test	30%
Final Exam	47%
Study Strategies Activities	3%

With BIOB90:

Description	Weight
Cartoon/Comic Strip Assignment	20%
Midterm Test	25%
Final Exam	42%
Study Strategies Activities	3%
BIOB90	10%

Missed Midterm Test/ Late Assignment:

- You will need to provide the Course Coordinator Jennifer Campbell with a UTSC medical certificate within 48 hours of a missed exam, if you wish to be considered for a potential make up exam.
- One single makeup midterm exam may be offered to students who provide significant evidence of extreme circumstances/ illness. The structure of the makeup midterm will differ from the original midterm, as determined by the instructor.
- If you miss assignment deadlines, email Dr. Thiagavel. Late assignments may be accepted by students who provide significant evidence of extreme circumstances/ illness.

Missed Final Exam:

- You will need to declare your absence on ACORN and submit a petition via the registrar's office and provide them with documentation. The course instructor/ coordinator is not responsible for scheduling missed final exams.

Note that it is not sufficient to simply visit a doctor's office; the documentation must show that you were incapable of writing the test or completing the assignment on [date] for medical reasons. The medical certificate must include the statement "[Name of student] was unable to write the test on [date] for medical reasons". Documentation must show the physician was consulted within one day of the test/exam. A statement merely confirming the report of an illness made by a student is not acceptable.

Please note that the self-declaration of student illness reports cannot be used for any missed assessments in this course.

Academic Integrity

<http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>

The University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. Potential offences in papers and assignments include 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 cheating includes using or possessing unauthorized aids, looking at someone else's answers during an exam or test, misrepresenting your identity, or 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 and could have serious consequences for students including suspension or expulsion from the university

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 the AccessAbility Services Office who is available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations [ability@utsc.utoronto.ca]

BIOB10 Course Schedule

Week	Lecture	Topic
Week 1 Sept 6 – Sept 10	1	Introduction to Course
	2	Cells and Genomes Prokaryotes & Eukaryotes
Week 2 Sept 13 – Sept 17	3	Macromolecules in Cells
	4	Protein: Structure
Week 3 Sept 20 – Sept 24	5	Protein: Function
	6	Organelles in Cells The ER
Week 4 Sept 27 – Oct 1	7	The ER: Secretory & Membrane Protein Synthesis The ER: Protein Quality Control
	8	Intracellular Membrane Traffic
Week 5 Oct 4 – Oct 8	9	The Golgi: Vesicular Transport & Secretion
	10	Protein sorting & Lysosomes
Oct 11 – Oct 15	Reading Week	
Week 6 Oct 18 – Oct 22	11	Endocytosis & Phagocytosis
	12	Mitochondria & Chloroplast Protein Import
Week 7 Oct 25 – Oct 29	13	Plasma membrane: Structure
	14	Plasma membrane: Function
Week 8 Nov 1 – Nov 5	15	Mitochondria: Structure & Energy Conversion
	16	Chloroplast: Structure & Energy Conversion
Week 9 Nov 8 – Nov 12	17	The Cytoskeleton
	18	Microtubules & Motors
Week 10 Nov 15 – Nov 19	19	Actin Filaments & Motors
	20	Intermediate Filaments
Week 11 Nov 22 – Nov 26	21	Cell-Cell Junctions
	22	The Extracellular Matrix
Week 12 Nov 29 – Dec 3	23	Studying Cells & Proteins I
	24	Studying Cells & Proteins II