

Department of Biology Course Outline

SC/BIOL 2021 3.0 Cell Biology Winter 2019

Course Description

A study of cell biology and aspects of related biochemistry. Topics include membranes, the endomembrane system, the cytoskeleton, cellular motility, the extracellular matrix, intercellular communication and intracellular regulation. Three lecture hours.

Prerequisites

Prerequisite: One of the following: (1) SC/BIOL 2020 4.00, (2) SC/BCHM 2020 4.00, (3) SC/BIOL 2020 3.00, (4) SC/BCHM 2020 3.00, (5) SC/BIOL 1010 6.00 and SC/CHEM 2050 4.00, (6) SC/BIOL 1000 3.00 and SC/BIOL 1001 3.00 and SC/CHEM 2050 4.00.

This course cannot be taken at the same time as BIOL2020.

Course Instructors and Contact Information

Course Instructor: Professor Paula Wilson
Email Contact: BIOL2021@yorku.ca
Office Hours: Will be posted on the Moodle course website

**Please see policy on email etiquette below in course policy section before sending an email*

Schedule

Lectures

Tuesdays and Thursdays 10:00 - 11:30am LAS A

Evaluation

Midterm Test 1*:	26%	Tuesday Feb 5 (80 minutes) multiple choice & written answer possible. no cheat sheet
Midterm Test 2*:	26%	Thursday March 14 (80 minutes) multiple choice & written answer possible. no cheat sheet
Final exam:	43%	Scheduled by Registrar's Office December 6 to 21 (3hrs) multiple choice & written answer possible. no cheat sheet
Activities**	5%	

*There will be no make-up midterms. Students who miss the midterm and provide documentation that is approved will have the value of the missed midterm added to the final exam.

** Activities include **in-class** iclicker questions and may include other **in-class** or online activities. The lowest 20% of activities (including zeroes) will be dropped from your grade. This is to account for an occasional missed class (e.g., due to illness or other reasons) or for a forgotten/malfunctioning electronic device, etc. Documentation for missed activities will not be accepted. Please note: iclicker questions are only for students in class during lecture. Students who answer unrelated responses or idk on short answers, or who answer all questions wrong for a given lecture, will receive zero points for that lecture.

Learning Outcomes

Upon successful completion of BIOL 2021, students will be able to demonstrate an understanding of

- the internal organization of the cell
- major cellular functions at the molecular level
- aspects of the interactions between cells in multicellular organisms.

Resources

Textbook

- Alberts *et al.* (2015) *Molecular Biology of the Cell*, 6th ed., Garland Publishing.
- This textbook is on reserve in the Steacie library under “BIOL 2021”

Personal response system – via your own mobile device or computer

- This is a free application which is required to participate in in-class questions. Participation in these questions contribute to your Activity grade.
- Details regarding how to create an account will be posted on the Lecture Moodle course website.

Course Moodle Site: <http://moodle.yorku.ca>

Course Content

Chapters correspond to Alberts, 6th ed. (2015). Lectures may cover only selected topics from each chapter. Midterm/Exam questions will relate to the topics covered during lecture and will not cover material in the chapters that was not mentioned during lectures.

Tentative Lecture Schedule (*May change depending on pace of lectures*)

Date	Lecture #	Topic	Chapter
Jan 3	1	Introduction, Visualizing Cells	9
Jan 8, 10	2, 3	Membrane Structure	10
Jan 15, 17	4, 5	Transport of Small Molecules	11
Jan 22, 24	6, 7	Compartments, Protein Sorting	12
Jan 29, 31	8, 9	Intracellular Membrane Traffic	13
Feb 5	TBA	Midterm 1	
Feb 7, 12, 14	10, 11, 12	Cell Signaling	15
Feb 18-22		Reading Week	
Feb 26, 28	13, 14	Cell Signaling, Cytoskeleton	15, 16
Mar 5, 7	15, 16	Cytoskeleton	16
Mar 12	17	Cell Cycle	
Mar 14	TBA	Midterm 2	17
Mar 19, 21	18, 19	Cell Cycle, Cell Death	17, 18
Mar 26, 28	20, 21	Junctions & Adhesion, Cancer	18, 19
April 2	22	Cancer	20
TBA	1-22	Final Exam	

Copyright Information

- **Copyright Note:** All material associated with this course is the intellectual property of the instructor and/or protected under Canadian copyright law. All material, including lecture slides or recordings, activities, tests and assignments are to be used for personal study purposes only. Unauthorized distribution can lead to a violation under Copyright law.

Important Dates

Midterm Test 1*:	Tuesday Feb 5
Midterm Test 2*:	Tuesday March 12
Final exam:	Scheduled by Registrar's Office

Last Day to drop the course without receiving a grade: March 8, 2019

Last Day to withdraw from the course and receive "W" on transcript: April 3, 2019

NOTE: for additional information on withdrawing from a course refer to <http://secretariat-policies.info.yorku.ca/policies/withdrawn-from-course-w-policy-and-guidelines/>

NOTE: for additional important dates such as holidays, refer to the "Important Dates" section of the Registrar's Website at <http://registrar.yorku.ca/enrol/dates/>

**test dates will be confirmed in January*

Course Policies

E-mail Policies

We will try to respond to email within 48 hours, but it may not always be possible. You may also post questions on the Moodle Student Forum, as a classmate may know the answer.

Subject Line: Please place the subject of the message in the subject line.

Email Body: Please include your name and student number.

Please maintain formal structure with emails, beginning with "Dear ..." and ending with your name and student number.

Grading

- Grades will be posted in Moodle grade book as they become available.
- There are no "extra credit" assignments. Grades are not bell-curved.

Policy for a Missed Midterm Test 1 or Midterm Test 2

- If you are ill **you must see a physician while you are ill – within 24 hours of the missed test** (see details below).
- **You must email the course email within 24 hours of missing the test.**
- **Documentation:** Valid and appropriately detailed documentation supporting the reason for missing the test (typically medical or emergency related) must be uploaded to the Department of Biology Document Submission System within seven (7) days of the missed test. The link to the document submission system is <http://science.apps01.yorku.ca/machform/view.php?id=84113>. Documentation should cover the date of the missed test/exam. **Keep originals as instructor may request you to submit your originals as well.**
 - Medical (illness) related: You must see a physician while you are ill - within 24 hours of the missed test – ideally on the same day - so that the physician can confirm you are too ill to attend the test based on medical examination. If you see the physician when you are not ill, he/she cannot confirm the illness and I will not accept such documentation. Physician must complete an "Attending Physician's Statement" from

the registrar petitions package

<http://www.registrar.yorku.ca/petitions/academic/package>. A note that simply says you were seen in the clinic will not be accepted.

- If appropriate documentation is not provided within seven (7) days, a zero will be earned on the missed midterm.
- Not all situations will be accommodated, meaning that a zero may be earned on the missed test. Circumstances not accommodated include, but are not limited to, schedule confusion, sleeping in, missing the bus, personal endeavours (including a job), and busy lives.

Policy for a Missed Final Exam

- If you miss the final exam you must request deferred standing. Information, instructions and forms for requesting deferred standing are found at: <http://myacademicrecord.students.yorku.ca/deferred-standing>
- You must complete a Deferred Standing Agreement Form and provide supporting documentation (for illness this includes an Attending Physicians Statement <http://myacademicrecord.students.yorku.ca/pdf/attending-physicians-statement.pdf> and submit it to the undergraduate office, 102 LSB.
- In most cases students will be required to petition for deferred standing.
- The format of the deferred final exam may be essay, short answer, multiple choice, or a mix of these options.

University Policies

Academic Honesty and Integrity

York students are required to maintain the highest standards of academic honesty and they are subject to the Senate Policy on Academic Honesty (<http://secretariat-policies.info.yorku.ca/policies/academic-honesty-senate-policy-on/>). The Policy affirms the responsibility of faculty members to foster acceptable standards of academic conduct and of the student to abide by such standards.

There is also an academic integrity website with comprehensive information about academic honesty and how to find resources at York to help improve students' research and writing skills, and cope with University life. Students are expected to review the materials on the Academic Integrity website at – <https://spark.library.yorku.ca/academic-integrity-what-is-academic-integrity/>

Access/Disability

York University is committed to principles of respect, inclusion and equality of all persons with disabilities across campus. The University provides services for students with disabilities (including physical, medical, learning and psychiatric disabilities) needing accommodation related to teaching and evaluation methods/materials. These services are made available to students in all Faculties and programs at York University.

Student's in need of these services are asked to register with disability services as early as possible to ensure that appropriate academic accommodation can be provided with advance notice. You are encouraged to schedule a time early in the term to meet with each professor to discuss your accommodation needs. Please note that registering with disabilities services and discussing your needs with your professors is necessary to avoid any impediment to receiving the necessary academic accommodations to meet your needs.

Additional information is available at the following websites:

Counselling & Disability Services - <http://cdis.info.yorku.ca/>

Counselling & Disability Services at Glendon - <http://www.glendon.yorku.ca/counselling/>

York Accessibility Hub - <http://accessibilityhub.info.yorku.ca/>

York University issued Accommodation Letters should be emailed to jclarkj@yorku.ca

Ethics Review Process

York students are subject to the York University *Policy for the Ethics Review Process for Research Involving Human Participants*. In particular, students proposing to undertake research involving human participants (e.g., interviewing the director of a company or government agency, having students complete a questionnaire, etc.) are required to submit an *Application for Ethical Approval of Research Involving Human Participants* at least one month before you plan to begin the research. If you are in

doubt as to whether this requirement applies to you, contact your Course Director immediately.

Religious Observance Accommodation

York University is committed to respecting the religious beliefs and practices of all members of the community, and making accommodations for observances of special significance to adherents. Should any of the dates specified in this syllabus for an in-class test or examination pose such a conflict for you, contact the Course Director within the first three weeks of class. Similarly, should an assignment to be completed in a lab, practicum placement, workshop, etc., scheduled later in the term pose such a conflict, contact the Course director immediately. Please note that to arrange an alternative date or time for an examination scheduled in the formal examination periods (December and April/May), students must complete an Examination Accommodation Form, which can be obtained from Student Client Services, Student Services Centre or online at

https://registrar.yorku.ca/sites/registrar/files/pdf/exam_accommodation.pdf(PDF)

Student Conduct in Academic Situations

Students and instructors are expected to maintain a professional relationship characterized by courtesy and mutual respect. Moreover, it is the responsibility of the instructor to maintain an appropriate academic atmosphere in the classroom and other academic settings, and the responsibility of the student to cooperate in that endeavour. Further, the instructor is the best person to decide, in the first instance, whether such an atmosphere is present in the class. The policy and procedures governing disruptive and/or harassing behaviour by students in academic situations is available at - <http://secretariat-policies.info.yorku.ca/policies/disruptive-and-or-harassing-behaviour-in-academic-situations-senate-policy/>