

Syllabus for Cell Biology Bio 2382B–2018

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TAs: Carlie Muir cmuir6@uwo.ca and Ariel Frame aframe@uwo.ca

Lectures are held Mondays and Wednesdays

Section 001: 1:30 to 2:20 p.m. in NCB 101

Section 002: 11:30 a.m. to 12:20 p.m. in NS 145

Please attend your designated section (001 or 002) unless you have received permission in writing from the course coordinator.

Lecture notes, slides and all other relevant course material is found on the course website – <https://owl.uwo.ca>

Office Hours:

Dr. Cumming's – Mondays and Wednesdays 10:30 – 11:20 am, or by appointment

Dr. Damjanovski's – Mondays and Wednesdays 10:30–11:20 am, or by appointment.

There are no scheduled tutorials.

For questions related to course content, please contact the TAs through the course website (Forums—questions for TAs) or directly via email. Email can also be used to make an appointment to see a TA. Other scheduled help and review sessions will be announced nearer midterm times.

For issues related to course administration (missed midterms, etc) please email Dr. Cumming directly, rcummin5@uwo.ca

The course website forum can be used for *appropriate* student discussions of course material. The TAs will monitor this forum.

When communicating with instructors and TAs outside of the owl website **use your UWO email account only.** Make sure that your UWO account doesn't go over quota! Emails containing unsolicited attachments will be automatically deleted.

Prerequisite(s): Prerequisite(s): A minimum mark of 60% in either [Biology 1001A](#) or [1201A](#) and a minimum mark of 60% in either [Biology 1002B](#) or [1202B](#); [Chemistry 1301A/B](#) and [1302A/B](#) or the former Chemistry 1100A/B and 1200B. You are responsible to ensure that you have all of the classes, the pre-requisites and meet all

conditions needed to take a given course, or qualify for a program (module) or degree. Unless you have either the requisites for this course or written special permission from the academic counsellors in the Office of your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

Course Outline:

Introduction to Cell Biology

Technical Aspects and Approaches (i.e. Tools of the Trade)

Cell culture, Stem cells, Cancer cells, Imaging in cell biology

Isolation and analysis of cell organelle and molecules

Protein Synthesis

Organelles and transport

Vesicular Traffic—Exocytosis & Endocytosis

Cell Signalling & Signal Transduction

RTKs, GPCRs, Apoptosis, others

Mitosis & Molecular Regulation of the Cell Cycle

The Cytoskeleton

Microtubules

MTOCs, dynamics and motor proteins

Mitotic Apparatus and Mitosis

Intermediate Filaments

Actin and Myosin

Muscle Contraction

Cell Motility

The Cell Surface

Cell Junctions, Cell Adhesion and Extracellular Matrix

Structure and Composition of Biological Membranes

Membrane Properties and Function

Membrane Proteins

Membrane Transport

Textbook: Molecular Cell Biology, 8th Edition, by H. Lodish et al. (W.H. Freeman & Co.) Specific reading assignments will be assigned during lecture.

Evaluation:

Midterm #1— Saturday, February 10, 2018; 10–11:30 AM (25%)

Midterm #2— Saturday, March 17, 2018; 10–11:30 AM (25%)

Final Exam, as scheduled by the Registrar (covers whole course) (50%)

Midterm room locations will be determined at a later date.

If you miss a midterm, or final exam, you will need to provide valid UWO documentation as described in the **academic accommodation due to illness** paragraph. Once this document is cleared by the academic counsellors in the Dean's Office you will be allowed to write a make-up.

The make-ups WILL NOT BE OF THE SAME FORMAT as the original. There is only one makeup per midterm. Missing the makeup (and having appropriate documentation) will result in writing a 75% final. Missing both midterms will result in a 100% final exam (proper documentation required). Students who have valid documented reasons (through the academic counsellors in the Dean's Office) for missing both the final exam and its make-up exam will write the exam during the final exam period the next time the course is offered.

Midterm 1 Makeup— Thursday, February 15, 2018; 6:00–7:30 PM in TBA

Midterm 2 Makeup— Thursday, March 22, 2018; 6:00–7:30 PM in TBA

Important Information: If you would like to make an audio recording of the lectures in this course, you **MUST** ask permission first. According to intellectual property laws not asking permission constitutes stealing. We do **NOT** permit videotaping or photographing lectures. Course material (i.e. lecture slides, videos, and other supplementary material posted on OWL) is the intellectual property of your instructor and is made available to you for your personal use in this course. Sharing, posting or using this material outside of your personal use in this course is considered an infringement of intellectual property rights.

Additional Information

If you are a science student, the Academic Counselling Office of the Faculty of Science is located in WSC 140, and can be contacted at 519–661–3040. Their website is http://www.uwo.ca/sci/undergrad/academic_counselling/index.html.

Accessibility-Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661–2111 ext. 82147 for any specific question regarding an accommodation.

A student requiring academic **accommodation due to illness** must use the Student Medical Certificate when visiting an off-campus medical facility or request a Records Release Form (located in the Dean's Office) for visits to Student Health Services.

The form can be found at:

https://studentservices.uwo.ca/secure/medical_document.pdf . The complete medical

form is then taken to an academic counsellor in the Dean's Office where it will be verified and the appropriate course instructors notified.

Course Communications-Students must check OWL (<http://owl.uwo.ca>) and their uwo.ca email on a regular basis. This is the primary method by which information will be disseminated to all students in the class. The missing of critical information due to your failure to check OWL or email cannot be used as a basis for appeal.

Students who are in emotional/mental distress should refer to Mental Health@Western <http://www.uwo.ca/uwo.com/mentalhealth/> for a complete list of options about how to obtain help. Additional student-run support services are offered by the USC, <http://westernusc.ca/services>.

Academic Offences-Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site <http://www.uwo.ca/univsec/handbook/appeals/scholoff.pdf>

Academic Accommodations for Religious Holidays-The Faculty of Science strictly adheres to the University policy on accommodation for students based upon conflicts with religious holidays. Accommodation will only be granted for the specified date of the religious holiday. Only holidays appearing on the University-approved list of dates will be accommodated. See the academic counsellors in the Office of your Dean for the list of approved dates. Students requesting accommodation must do so, in writing, to the academic counsellors in the Office of your Dean at least one month before the scheduled exams/assignments.

SDC's Learning Skills Services, Rm 4100 WSS, www.sdc.uwo.ca/learning. LS counsellors are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.

Code of Student Conduct-To foster a supportive and enriching academic environment that is conducive to learning and free inquiry, Western has a Code of Student Conduct (<http://www.uwo.ca/univsec/pdf/board/code.pdf>)

The website for Registrarial Services is <http://www.registrar.uwo.ca>.

Have a great term and Good Luck