

Cell Biology, Biol 360, University of Victoria Fall 2020

Goals for this course:

We selected interesting and complex topics of cell biology in order to introduce you with major concepts and working techniques of cell biology. We want you to understand general principles of cell organization, intracellular transport, cell communication, signal transduction pathways & cell cycles including apoptosis. Occasionally we include peer reviewed research papers in order to show you how textbook knowledge is created and how experiments are performed. We want you to understand experimental set up and be able to interpret figures presenting research results. Our main goal is to teach you the scientific way of thinking. We look forward to the continuing studies of the fascinating world of cell biology!

With whom do you have to deal with?

Instructors: **Dr. Ryan Gawryluk**
email: ryangawryluk@uvic.ca
Office hours: TBA

Dr. Barbara Ehling (Course coordinator)
email: behling@uvic.ca

You can always connect with me via email and /or we can set up a time and meet on zoom. My goal is to respond no later than within 24 h on business days.

Teaching assistant: Kara Ruff: kararuff@uvic.ca

Prerequisites:

Biol230 OR BME200 and BME201, AND one of Bioc 299, Bioc300A, Bioc300B (Bioc300A or 300B can be taken as corequisites). Please be aware that if you drop a co-req the system will automatically drop you from this course as well!

Online Teaching

Ok, to be honest with you, none of us has actively chosen the form of online teaching/learning. We were all more or less forced into this due to the pandemic. As this is challenging for all of us (everybody has their own personal challenges), we try to make the best out of it: Please be kind to us as instructors as we are still learning the new LMS Brightspace and the way of online teaching (Normally online courses are designed by teams of online-specialists over years). There are most likely some bumps on the road ahead and we welcome your suggestions. We also want to encourage you to look forward and learn as best as you can. Trust me, I know that it can be hard to motivate yourself at home. We try to be as flexible as possible to accommodate the challenges of our so called 'new normal'. Please contact us if you struggle and need help. We are here to help!

Designated Class time:

Monday, and Thursday 1pm – 2.20 pm. Classes start Thursday Sept 10th and end Thursday Dec 3rd. This term the course will be taught online, so you can expect to see pre-recorded lecture slides usually one week ahead of time. We only expect you to be actually **available in real time biweekly on Thursdays at 1 pm – 2.20 pm** for online quizzes, paper assignment, live Q&A class sessions on zoom and other interactions. Other days are flexible.

How do we connect in this online setup?

1. Bright spaces will be used to post pre-recorded lectures, assignments, Q&A forums, quizzes, announcements and more...

2. Zoom will be used to connect with you in real time (office hours and Q&A sessions on Thursdays).

Your guest link for the entire term is

<https://uvic.zoom.us/j/97368193628?pwd=QVlxYUx3S0RCRmltSUNyeStlVzJ5dz09>

Meeting **ID:** 973 6819 3628 (valid for entire term)

Meeting **Password:** UVic (valid for entire term)

Please log in via **UVic SSO** (Single Sign On) and you can access the meeting right away without being in the waiting room! If you have privacy issues please contact UVic privacy office.

As it is really **nice to see your faces** we would really appreciate if you would turn on your videos during zoom meetings!!!!

You can participate by writing in the chat and/or raising a hand (in your video or by clicking the hand symbol on the right side after you clicked on 'participants').

Orientation session once on Thursday Sept 10th at 1 pm: Let's meet on the first day of class for a little introduction. I expect that this may take about 30 – 45 min. We strongly encourage you to come to this first session! We are looking forward to get to know you all!

Office hours: In order to meet on Zoom individually, please send me an email and we will agree on a time.

Class Question & Answer sessions biweekly on **Thursdays at 1 pm** (Sept 24th, Oct 8th, Oct 22nd, Nov 5th, Nov 19th, Dec 3rd): The recorded lectures might not be able to answer all your questions. We therefore invite you to biweekly Q&A sessions on Thursdays at 1 pm via Zoom to discuss class material. I can use a white board to draw concepts and you can edit the white board as well. If you have questions please send them to me by email a little bit ahead of time. You can also ask questions during those Q&A sessions by raising your (blue digital) hand and/or in the live chat (Remember: we also have a Q&A forum on bright space, so that you can ask your questions 24/7!).

Attending the Question & Answer session is **highly recommended**, so **EVERYBODY** please log in.

Textbook:

Molecular Biology of the Cell, 6th edition, Alberts B, Johnson, A, Lewis J, Morgan, Raff M, Roberts K, Walter P, Garland Science, ISBN 978-0-8153-4432-2

The book is available to you in various forms:

- the textbook can be purchased at the bookstore NEW \$285.75
- (UVIC bookstore has service through a pickup window)
- USED text: \$214.75
- Looseleaf: \$167.75
- Etext is available via VitalSource.com for \$227.50
- etext available at Norton for \$74.95 <https://digital.wwnorton.com/mboc6>
- The UVIC library is looking into ebook option.

Lecture notes will be posted on a Brightspace website organized in TOPICS. Recorded lecture slides will be posted in 20-50 min packages, roughly 80 min for each lecture. I recommend that you listen to those recordings and take notes, add comments on slides and answer questions.

*All course content and materials (lecture notes and exam/quiz questions) are made available by instructors for educational purposes and for the exclusive use of students registered in their class. The material is protected under copyright law, even if not marked with a ©. **Any further use or distribution of materials to others requires the written permission of the instructor, except under fair dealing or another exception in the Copyright Act. SHARING LECTURE SLIDES and QUIZ QUESTIONS through note-sharing sites or other means VIOLATES THE POLICY ON ACADEMIC INTEGRITY.** Violations may result in disciplinary action under the Resolution of Non-Academic Misconduct Allegations policy (AC1300).*

Tentative Class Schedule

- Welcoming, rules and regulations,
- Introduction to Cell Biology (parts of chapters 1,3, 4, 12, 14)
- Working with cells: visualizing cells and manipulation of cells (chapters 8, 9)
- Membranes (chapter 10)
- Membrane transport of small molecules & the electrical properties of membranes (chapter 11)
- Intracellular Compartments and Protein sorting (chapter 12)
- Intracellular vesicular Traffic (chapter 13)
- Cell communication and signaling pathways in cells (chapter 15)
- Cytoskeleton (chapter 16)
- Cell cycle (chapter 17)
- Apoptosis (chapter 18)
- Cancer (chapter 20)
- Wrap up and catch up, Review, evaluation...

Important dates this term Fall 2020

Sept 10 th	<i>Introduction</i> live on Zoom on Thursday
Sept 17 th	Mock quiz on Brightspace
Sept 24 th	Live Q&A session on Zoom at 1 pm, Quiz 1: at 1.40 pm
Sept 25 th	Last day for adding courses:
Oct 8 th	Live Q&A session on Zoom at 1 pm, Quiz 2 at 1.40 pm
Oct 15 th	<i>Paper assignment</i> : group work, 1 – 2.20 pm
Oct 22 nd	Live Q&A session on Zoom at 1 pm, Quiz 3 at 1.40 pm
Oct 31 st	Last day for dropping courses
Nov 5 th	Live Q&A session on Zoom at 1 pm, Quiz 4 at 1.40 pm
Nov 19 th	Live Q&A session on Zoom at 1 pm, Quiz 5 at 1.40 pm
Nov 26 th	Last day to submit to the <i>Artistic assignment</i>
Nov 30 th	Last day to submit to <i>Glossary assignment</i>
Nov 30 th	Last day to submit to <i>Q&A assignment</i>
Dec 3 rd	Live Q&A session on Zoom at 1 pm, Quiz 6 at 1.40 pm

How to be successful

Everyone wants to be successful. And YOU CAN SUCCEED! I strongly encourage you to use the designated lecture time and listen to the recorded lecture. You should take notes while you listen to the recordings. If you have questions: please ask in the **Q&A forum on Brightspaces and/or during the Q&A session on Thursdays on Zoom!**

It is very important to keep on track and to focus on class material.

I want to inform you that **off – task activities** like checking email, text messaging, checking social network sites, is **negatively affecting students' grades by more than 10%**. I strongly recommend that you **TURN OFF your off – task aps/programs during your study time to allow you to FOCUS and not be distracted by social media and other non-course related sites!**

Evaluation:

- Biweekly **quizzes 45%**. Every Thursday (Sept 24th, Oct 8th, Oct 22nd, Nov 5th, Nov 19th, Dec 3rd) after the Q&A session at **1.40 pm** on Brightspace. **It is your responsibility to log on every Thursday at 1.40 pm to complete and submit the quiz within the 40 min time window.** Each quiz is worth 9%. The **five best** quizzes (total of 45%) will be used for your final grade. You must write at least **FOUR** quizzes to successfully complete this class. If you miss more than two quizzes alternative forms of evaluation might be necessary. There will be a mock quiz on Thursday Sept 17th at 1.40 pm so that you get used to the technical aspect of writing online quizzed on Brightspace. If you have any **technical issues** using Brightspace, this is the time to figure this out and please contact the **computer help desk** via email (helpdesk@uvic.ca) ASAP.

- **Final exam: 40%**. Time determined by UVic during exam period in December, cumulative, online exam on Brightspace.

- **Paper assignment: 10%** (completed in groups online, student will be put in groups on Brightspace. The paper will be announced in October, students have about one week to read it. Questions for the paper assignment will be given on **Thursday Oct 15th**, and students are organized in groups on zoom at 1pm – 2.20 pm to answer and submit the questions as a group.

- **Glossary assignment: 1%** describe ONE scientific term and email your submission to Ryan Gawryluk (*email: ryangawryluk@uvic.ca*). He will arrange your terms in the Glossary tool on Brightspace for everyone to review.

Your term should be one used in this course, you are free to select the term. Only restriction: No duplicates allowed! Can be done anytime but no later than **Nov 30th**.

- **Q & A assignment: 2%** participation. In this course we will have a Question & Answer forum for **cell biology** related topics. Everybody can post questions and everybody can answer/comment on the questions. You get a participation mark for ASKING at least one question (1%) and for ANSWERING at least one question (1%) anytime during the term, but not later than **Nov 30th**.

- **Artistic assignment** (or: the unusual assignment): **2%** participation. Get creative: write a poem with our scientific words used in the class, draw a picture related to our topics, dance and record your favorite scientific pathway or come up with your own creative idea and relate it to class content. Look for the submission drop box on Brightspaces. Can be done anytime but no later than Thursday **Thursday November 26th**.

If you have any **technical issues** using the online meeting platform Zoom or on brightspace, please contact the **computer help desk** via email (helpdesk@uvic.ca)

General regulations:

Grading system: In determining final grades for the course, our spreadsheet will round your course score to the nearest whole percent. That is the official course grade that will be submitted for you.

We cannot change your grade for any reason, except if we have made an error calculating it. There is no extra work that you can do to raise your grade.

Failure to complete essential components of this course will result in a grade of “N” regardless of the cumulative percentage on other elements of the course. An N is a failing grade, and it factors into a student’s GPA as ‘0’. The maximum percentage that can accompany an N on a student’s transcript is 49.

Please read the appropriate section of the current UVic Academic Calendar regarding your rights and obligations.

You are expected to **observe UVic academic regulations and standards of scholarly integrity** especially with regards to plagiarism and cheating. All exams are written at home, so they are all open book exams: you are allowed to consult lecture notes and textbook, however budget your time carefully! The exams (quizzes and final exam) must be taken **individually** and not with a friend/classmate or a group. You are prohibited from sharing any information about the exam with others.

UVic and we as instructors are committed to promoting, providing and protecting a supportive and safe learning and working environment for you and us.

Stay healthy!

A note to remind you to take care of yourself. Do your best to maintain a healthy lifestyle this semester by eating well, exercising, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress. All of us benefit from support during times of struggle. **Especially in those crazy times during this pandemic.**

I hope that you are enjoying a great fall term with Bio360 Cell Biology!

UVic services:

Student Supports for Online Technology:

- information on Zoom at

<https://www.uvic.ca/systems/services/avmultimedia/zoomvideoconferencing/index.php>

Learn anywhere:

<https://onlineacademiccommunity.uvic.ca/LearnAnywhere/>

New Student Connect Program

*As a critical tool to build student communities and meaningful engagement outside of the learning setting in a predominately online environment, all **new to UVic** students (undergraduate & graduate) will have opportunities to participate in New Student Connect. Participating students will be assigned in small groups by Faculty and/or interest groups to upper year peer mentors who will provide a wealth of knowledge about student life, the UVic student community, available support services, and ways that students can get connected as needed.*

<https://www.uvic.ca/services/studentlife/initiatives/new-student-connect/index.php>

New Student Mental Health Supports

In addition to providing both face to face and online mental health resources through our new Student Wellness Centre (opened in July), a new 24x7 phone & online student mental health resource and support program is now available for all UVic students, no matter where they are located, at any time.

<https://www.uvic.ca/services/counselling/resources/supportconnect/>

Counselling Services - *Counselling Services can help you make the most of your university experience. They offer free professional, confidential, inclusive support to currently registered UVic students. Due to covid19 service is now offered by phone <https://www.uvic.ca/services/counselling/>*

Health Services - *University Health Services (UHS) provides a full service primary health clinic for students, and coordinates healthy student and campus initiatives. UVic Health has transitioned to offering services almost entirely by telehealth. <http://www.uvic.ca/services/health/>*

Centre for Accessible Learning - *The CAL staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations <https://www.uvic.ca/services/cal/>. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.*

Elders' Voices - *The Office of Indigenous Academic and Community Engagement (IACE) has the privilege of assembling a group of Elders from local communities to guide students, staff, faculty and administration in Indigenous ways of knowing and being.*
<https://www.uvic.ca/services/indigenous/students/programming/elders/index.php>

Sexualized Violence Prevention and Response at UVic

UVic takes sexualized violence seriously, and has raised the bar for what is considered acceptable behaviour. We encourage students to learn more about how the university defines sexualized violence and its overall approach by visiting www.uvic.ca/svp. If you or someone you know has been impacted by sexualized violence and needs information, advice, and/or support please contact the sexualized violence resource office in Equity and Human Rights (EQHR). Whether or not you have been directly impacted, if you want to take part in the important prevention work taking place on campus, you can also reach out: Where: Sexualized violence resource office in EQHR; Sedgewick C119, Phone: [250.721.8021](tel:250.721.8021), Email: svpcoordinator@uvic.ca, Web: www.uvic.ca/svp