

Cell Biology Biol360 Fall 2026 CRN 10372– ONE PAGE Summary

- **Everyone is welcome!**
- **Instructor:** Barbara Ehltling, behlting@uvic.ca
- **Evaluation:**
 - *Two midterms* (20 & 25%) invigilated online on Oct 5th and Nov 5th 2026
 - *Eight mini quizzes* (8% in total, 1% each)
 - *Final exam* (35%) invigilated online during final exam period in December 2026
 - one page letter sized hand-written study sheet allowed for midterms and final exam
 - *Group Paper assignment* (10%) on Monday Oct 26th in class, read paper before
 - *Artistic assignment* (2%) participation due Dec 7
 - *Optional EDI assignment* (3%) due Dec 7 (if submitted final exam will count 3% less)
- **To pass the course and avoid an N grade, students**
 - *write minimum of one midterm*
 - *write final exam,*
 - *submit paper assignment.*
- **Material:**
 - *Lecture slides* posted on course webpage
 - “The molecular biology of the Cell” by Alberts, 7th ed *textbook*, optional
- **Need help?**

If you have any questions, here are places to find answers (in that order):

 - Most questions can be answered by reading the *course outline*
 - Important information will be conveyed during *class time* and /or via course webpage *announcements*. Students are expected to read their emails.
 - Ask your *peers*
 - Contact *me*

Cell Biology, Biol 360, CRN 10372, University of Victoria Fall 2026

Welcome!

We acknowledge and respect the Lək̓ʷəŋən (Songhees and X̱wsepsəm/Esquimalt) Peoples on whose territory the university stands, and the Lək̓ʷəŋən and WSÁNEĆ Peoples whose historical relationships with the land continue to this day.

I am very happy to live on this beautiful land, home to humans for thousands of years. Let's be thankful for the opportunity to learn together on this beautiful land.

I welcome everyone to learn in this course, and I respect every human being from all ethnic backgrounds, religious beliefs, sexual orientations, genders, socioeconomic backgrounds and abilities.

Your instructor

Instructor: **Dr. Barbara Ehltling** (Course coordinator, lecturer)

email: behltling@uvic.ca

office: Petch 005

Connect

- via email (responses within one business day during reasonable working hours).
- in person: Just send me an email and we arrange a meeting time (preferred times: right after class). Office hours are for you to connect with me, discuss lecture material, and to get to know each other.
- via Zoom with appointment:
<https://uvic.zoom.us/my/biol360.officehour?pwd=eFRjYWUzY1hOc2lFL3U3VHc4RS8xUT09>
- my background: You can find out more on the Brightspace 'Meet your instructor' site!

Intended Learning Outcomes for BIOL360 Cell Biology:

At the end of this course, you will ...

- be familiar with and understand the theory of **major isolation and visualization techniques**, such as isolation of cells and organelles, cultivation of cells, and microscopy of cells.

→ Your knowledge about techniques will enable you to know when to apply which technique for specialized research questions.

- be familiar with **cellular processes that are most studied and best understood** including membrane composition and transport across membranes, intracellular protein localization, cell signaling, cytoskeleton assembly and disassembly, cell cycle regulation, apoptosis and cancer.

→ Your knowledge about pathways will enable you to find out how potential mutations might affect pathways and how pathways interact, for example the impact of mutated cell cycle genes in cancer and the impact of the cytoskeleton on cell division.

- **read and interpret figures** from recently published peer reviewed scientific papers

- **collaborate with your peers** in pair discussions, and a group paper project

→ You will learn to draw conclusions from graphs by using your knowledge and discuss with your peers.

- **think and bring together concepts** taught in different classes over the term

→ Your overall knowledge about most common molecular techniques and cellular pathways will enhance your scientific thinking.

→ The active learning components in this class hopefully increase your joy for science and overall understanding of scientific concepts.

- perform to perfection **major life skills** such as improving study skills, meeting deadlines, punctuality, time management, collegiality, open discussion with peers and instructor, being proactive aiming for problem solving.

Designated Class time and location:

Mondays & Thursdays at 1pm -2.20 pm in HSD A240. Classes run from Sept 9 to Dec 7.

Lectures are delivered face-to-face and attendance is expected. Class time is our time together and critical for your active learning journey. This course is an active learning experience including active listening and asking questions in addition to group work and active discussions.

Prerequisites:

BIOL230 OR BME200 and BME201, AND one of BIOC299, 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! Students who are missing one pre/co-requisite might be allowed to register with special permission, however it is the students' responsibility to catch up with any missing background knowledge.

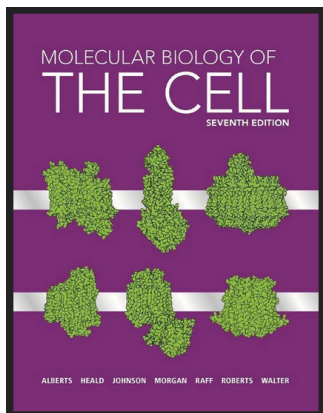
Tentative Class Schedule

- Welcoming, rules and guidelines
- 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...
- **Attendance is expected** and will enhance your learning substantially. If you miss class due to a valid reason, it is the student's responsibility to study missed material via posted lecture slides and asking peers for lecture notes.

Class material

- **Textbook** (optional): Molecular Biology of the Cell, 7th edition, Alberts B, Johnson, A, Lewis J, Morgan, Raff M, Roberts K, Walter P, Garland Science, ISBN 978-0-393-88482-1



The book is available in various forms:

- the textbook can be purchased at the bookstore
- Etext also available via VitalSource.com and at Norton <https://digital.wwnorton.com/mboc7>
- The UVIC library has the book on reserve.

We are using the latest edition of the textbook. If you get your hands on a used textbook of the 6th edition, you may use it, but it is your responsibility to find the appropriate readings.

- **Lecture notes** will be posted on Brightspace (content-> weeks). Bring the lecture notes to classes and add comments on slides and answer questions. **Provided lecture slides are for personal use ONLY and are not allowed to be distributed without permission from the publisher.** The material is protected under copyright law, even if not marked with a ©. Any further use (e.g. **copy and pasting into AI**) or distribution of materials to others **requires the written permission** of the instructor.

Evaluation:

- **Two Midterms** during class time, worth 20 & 25% on Oct 5th and Nov 5th 2026
 - If you miss one midterm due to a valid reason, please inform the course coordinator B. Ehling ASAP by filling out the **Request for In-course Extension form** and sending it via email. This is to request that the percentage of the missed examination be added to both one midterm (plus 10%) and the final exam (plus 10 and 15% for missing midterm 1 and midterm 2 respectively) . Failure to send the form will result in 0% for the missed midterm examination. https://www.uvic.ca/students/academics/academic-concessions-accommodations/request-for-academic-concession/forms/uvic_undergraduate_request_for_in-course_extension.pdf
 - You must write at **least ONE midterm** to successfully complete this class.
 - There will be **no deferred midterm** examination, unless you miss both midterms. Only in that case a deferred midterm worth 25% (combined materials covered for midterms one and two) is offered in November. It is the student's responsibility to contact the course coordinator via email ASAP to arrange for time and date.
- **Final examination: 35% (32% if you do the optional EDI assignment)**, during examination period in December, cumulative. You must write the final examination to complete this course. If you miss the final examination apply for RAC and contact the course coordinator B. Ehling via email immediately to arrange for deferred final examination date and location.

All examinations (both midterms and final) will

- be **invigilated** and written in person
- use **universal extended design**, and **all students** are given **1.5X times** (e.g. for a 50 min midterm examination everybody gets 75 min). Students with additional accommodations requests and or with more than 1.5 X must contact Centre for Accessible Learning (CAL) to arrange for exam invigilation.
- allow a **ONE-page hand written letter sized study-sheet** (NO digital version, NO printed version).
- **Mini quizzes** during lectures: **8%** (1% each). There will be 9 mini quizzes offered and only the best 8 will be counted. Quizzes will be run on Brightspace on Thursdays (Sept 17, Sept 24, Oct 1, Oct 15, Oct 22, Nov 12, Nov 19, Nov 26, Dec 3) during class time. **It is your responsibility to log on to complete and submit**

the mini quiz on your own electronic device. The due date is at the end of each quiz-lecture day. There will be no deferred mini quizzes.

Note: no quizzes in the weeks when midterms and the paper assignment are written and during reading break week.

- **Paper assignment: 10%** completed in groups **during class time** on Monday Oct 26th. You should read the paper beforehand. During the assignment students will answer questions about the paper as a group. There will be no deferred group paper assignment. If you are sick on the day of the assignment, contact course coordinator B. Ehlting via email ASAP to discuss options.
- **Artistic assignment: 2%** participation. Get creative: write a poem with our scientific words used in the class, paint a picture related to our topics, dance your favorite scientific pathway or come up with your own creative idea and relate it to class content (video, podcast, meme...). If possible, take multiple shots to show your progress!

-When you take a picture of your work for submission you must have a paper with your name, class and date on the image! Failure to do so results in 0%.

-Indicate on your submission if you are ok with the course coordinator B. Ehlting presenting your work to the class/in the biology hallway.

-Look for the submission drop box on Brightspace. Can be done anytime but no later than Dec 7th, 2026.

- **Optional EDI (Equity, Diversity, Inclusion) assignment** (3% of final grade if submitted no later than Dec 7th, 2026). If submitted on time the final exam will count 3% less of the final grade. Identify an injustice or EDI (equity, diversity, inclusion) issue related to cell biology and present your findings in your preferred mode (video, podcast, poem, ...). Your work must include substantial amount of information and cite at least two (peer reviewed) references. Consider more unknown topics and try to avoid well discussed issues such as underrepresentation of women in science.

-Students with **accommodations** are encouraged to reach out to the course coordinator B. Ehlting via email to discuss options ASAP.

The use of artificial intelligence (AI) and academic integrity:

-Acceptable use of AI:

AI can be very useful when students use it as a study tool: it is ok to write your own summary and ask AI to provide exam questions. It is NOT ok to copy and paste lecture slide content directly to AI because this would violate copy right.

-Nonacceptable use of AI:

The **use of any form of AI during invigilated quizzes/exams and other assessments** is unethical and considered a violation of academic integrity unless the instructor has specifically given permission. **Recording quiz/exam/assignment questions and sharing with peers who missed the evaluation and must defer is a violation of academic integrity.**

Remember that you are at UVic and pay tuition to learn and to train to become a professional with profound background knowledge and who should be able solve future problems in our society. You are here to learn how to think.

Consider the environmental impact due to massive energy consumption every time AI is used.

Grade conversion:

A+ 90-100%; A 85-89.5%; A- 80-84.5%; B+ 77-79.5%; B 73-76.5%; B- 70-72.5%;
C+ 65-69.5%; C 60-64.5%; D 50-59.5%; F <49.5%

In determining final grades for the course, we 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. After the final exam has been written, there is no extra work that you can do to raise your grade.

To pass the course, students must:

- 1) Write a minimum of **one midterm**
- 2) Write the **final** exam
- 3) Demonstrate comprehension of scientific literature by answering questions of the **paper assignment**

If any of 1 through 3 are not completed, the student will automatically fail the course and receive an "N" ('Incomplete course requirements') on their transcript. 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, even if the calculation results in a grade

higher than 49%. *If a student successfully completes 1 through 3, but the overall grade is 49% or lower, they will receive an “F” on their transcript.*

How to be successful

-Success is when you are happy and learn. **Attend (!) lectures, listen, take notes and talk during peer discussion session. Students are encouraged to ask questions during class time and outside class time.**

- Avoid last minute study panic by working regularly throughout the term: we recommend that you spend at **least 2-3 hours studying after each lecture!** Staying on top of things is key!

-If you have **questions**, find answers (in this order) 1. In the course outline, 2. In class announcements, 3. asking your peers and 4. Asking me!

-Form **study groups** with your peers: 4-5 students in one group are perfect. Only once you can talk about the material you really understand it.

I want you to know that **off – task activities** such as engaging with friends on social media, and watching only videos, is **negatively affecting students' grades (your own and your peers next to you) by more than 10%³**. Students are expected to turn off all digital content except class material during lectures. **I strongly recommend that you concentrate on your task at hand and turn off/silence your social media during study time to allow you to focus and not be distracted.**

Important Dates



In the UVic calendar you will find a fuller list of important dates, but the ones we have listed below are the ones that will matter to students in Biology 360.

Sept 9th 2026 First day of classes at UVic

Sept 10th: First lecture for biol360 at 1 pm

Sept 22nd: Last day for 100% reduction of tuition fees

Sept 25th: Last day for adding courses that begin in the first term

Sept 30th: National Day for Truth and Reconciliation, UVic closed, no lecture
Last day for paying first term fees without penalty

Oct 5th: midterm 1

Oct 12th: UVic closed (Thanksgiving), no lecture

Oct 13th Last day for 50% reduction of tuition fees for standard courses

Oct 26 – Oct 30: 5 Days of Action: 365 days of Commitment, various activities over entire week on campus

Oct 26th: **in class group paper assignment**

Oct 31st Last day for withdrawing from first term courses without penalty of failure

Nov 5th: **Midterm 2**

Nov 9-11: Reading break, no classes

Dec 7th: **Last day of classes**

Dec 10-23rd: Exam period

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.

Avoid last minute study panic by working regularly throughout the term: This will help you achieve your goals and cope with stress.

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.

Please read the appropriate section of the current UVic Academic Calendar regarding your rights and obligations (<https://www.uvic.ca/calendar/>).

You are expected to **observe UVic academic regulations and standards of scholarly integrity** especially with regards to plagiarism and cheating.

Student conduct

The University of Victoria is committed to promoting critical academic discourse while providing a respectful and supportive learning environment. All members of the university community have the right to this experience and the responsibility to help create such an environment. The University will not tolerate racism, sexualized violence, or any form of discrimination, bullying or harassment.

Please be advised that this includes logging into UVic's learning systems or interacting with online resources, and course-related communication platforms, you are engaging in a university activity.

All interactions within this environment are subject to the university expectations and policies. Any concerns about student conduct may be reviewed and responded to in accordance with the appropriate university policy.

To report concerns about online student conduct: onlineconduct@uvic.ca

Concerns about conduct in lectures and labs should be brought to your instructor.

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

References:

- 1: Wagner and Gansemer-Topf, 2005: Learning by teaching others: a qualitative Study exploring the benefits of Peer teaching; WGU Peer learning: Overview, benefits, and models <https://www.wgu.edu/blog/peer-learning2208.html#close>
- 2: WGU Peer learning: Overview, benefits, and models
<https://www.wgu.edu/blog/peer-learning2208.html#close>
- 3: Sana et al. 2013, Computers and education 62, 24-31

UVic support centers:

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.

Computer Help Desk If you have any technical issues, please contact the computer help desk via email (helpdesk@uvic.ca) or visit the counter in the CLE building

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. The service is offered by phone.

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

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>

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/>

Office of Student life: student conduct, Student mental health, Sexualized violence awareness,... : <https://www.uvic.ca/services/studentlife/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

Support Connect: 24/7 help by phone or online

<https://www.uvic.ca/student-wellness/contacts/emergency-contacts/index.php#ipn-supportconnect-24-7-help>

Student Wellness Centre to support students' mental, physical and spiritual health

<https://www.uvic.ca/student-wellness/>

End of course outline