

BIOLOGY 186 ±Physiology and Cell Biology

Department of Biology, University of Victoria

Spring 2022

Office hours: if you wish to speak with me outside class and the Zoom sessions, please email me and we will set up a Zoom appointment.

Dr. Beaulieu will also be serving as the course coordinator, so if you have some business related issue (except for lab business), he is the person to see.

f Dr. Barbara Ehltling

Patch 005, phone 25072-4066, email: behltling@uvic.ca. If you send an email, please put
3%LRORJ\ ' LQ WKH PHVVDJH OLQH
Office hours by appointment over Zoom

f Dr. David Punzalan

Patch 007, phone 25021-7109, email davidpunzala@uvic.ca If you send an email, please
SXW 3%LRORJ\ ' LQ WKH PHVVDJH OLQH
Office hours by appointment over Zoom

f Dr. Kerry Delaney

Cunningham 259a phone 250472-5657, email kdelaney@uvic.ca. If you send an email,
SOHDVH SXW 3%LRORJ\ ' LQ WKH PHVVDJH OLQH
Office hours by appointment over Zoom

f Kim Curry

email FHOELRO#XYLF FD ,I \RX VHQG DQ the Message SOHDVH S
Office hours by appointment over Zoom

f Alicia Rippington (Senior Lab Instructor)

email: biologylabs@uvic.ca (for questions related to lab content). If you send an email,
SOHDVH SXW 3%LRORJ\ ' D QG B03)Xn the One Page Hw Fw L R Q Q X P E
Office hours by Zoom, every Tuesday, 1:00-2:00 PM, beginning January 18. The
invitation:
Zoom Meeting link:
<https://uvic.zoom.us/j/82600758956?pwd=GNKeHYySGVIWINLVM9ISGVsUC9nZz09>
Meeting ID: 826 0075 8956
Password: 509878

Prerequisite

Any one of: Biology 11, Biology 12, Biology 150A, Biology 150B, Biology 184 equivalent, or placement exam. You need not have passed Biology 184 in order to take Biology 186.

Chemistry

Although a cou

The rest of that section, and the rest of the course, will assume that you are on top of this basic stuff.

- x Defer taking Biology 186 until after you have studied some chemistry in a basic chemistry course.

Required text

Campbell Biology third Canadian edition, by Urry et al. 2021. Available through the bookstore. You can purchase either a hardcopy or a digital version. This is the same text as was used in Biology 184 in the fall.

If you have access to the previous edition of the text (second Canadian edition), that will be alright for you to use, but bear in mind that some of the pagination, figure numbers and problem numbers might be different.

1HZ FRSLHV RI WKH WH[W FRPH ZLWK D Fall Mastering R WKH SXE C
Biology. Mastering can be useful but we do not require it in this course and we will not reference it in class so a used text will do fine. A couple of notes:

- f If you bought your text new in the fall, your access to Mastering Biology will still be good.
- f If you decide to go with a used copy, but you wish to purchase website access separately from the publisher, you may do so will cost \$115.
- f There is a pdf on Brightspace giving you directions on how to register with the publisher (if you are not already registered), how to purchase access if you bought a used text, and how to access Mastering Center Registration % XVLQHVV , QIRUPDWLRQ 3HDUVRQ :HEVLWH´

Course website

Biology 186 has a Brightspace website (<https://bright.uvic.ca/d2l/home/189623>). As a registered student in this course, you will automatically be enrolled in this site.

On the site you will find lecture and lab notices, test results, practice questions, exam

F. Lecture Topics and Text Readings (tentative)

The readings might be modified by the instructors when each topic comes up.

Greg Beaulieu ± Cells and Molecules

Molecules of life

Chapter 2 & 3 (2nd and 3^d Can. ed.) (I recommend that you
UHDG WKL V LI \RX GRQ ¶ W NQRZ EDVLF P
covering most of this material in class or in these lecture
notes, but you have to know it to understand this course)

Chapter 4 (2nd and 3^d Can. ed.);

Chapter 5 (2nd and 3^d Can. ed.)

Cell tour

Chapter 6 (2nd and 3^d Can. ed.)

Membranes and transport

Chapter 7 (2nd and 3^d Can. ed.)

Bioenergetics and enzymes

Chapter 8 (2nd and 3^d Can. ed.)

Respiration

Chapter 9, pp. 167-193 (3rd Can. ed.)

Chapter 9, pp. 175-193 (2nd Can. ed.)

Barbara Ehling ± Plant Structure and Physiology

Plant structure

Chapter 35: 35.1-35.4, pp. 808-825 (3rd Can. ed.)

Chapter 35, pp. 808-819 (2nd Can. ed.)

Photosynthesis

Chapter 10.10.3, pp. 199-214 (3rd Can. ed.)

Chapter 10, pp. 199-214 (2nd Can. ed.)

Plant growth and water transport

Chapter 36.1-36.5, pp. 835-851 (3rd Can. ed.)

Chapter 36.1-36.5, pp. 828-845 (2nd Can. ed.)

Exploitation of light

Chapter 39.3, pp. 908-914 (3rd Can. ed.)

Chapter 39, pp. 895-900 (2nd Can. ed.)

Appendix ±The First Two Weeks of the Course (from Dr. Beaulieu)

Lectures

At the moment, UVic intends its courses to be online ~~on~~ ~~Friday, January 22~~ ~~During this two week period, my first three lectures will be made available on the course Brightspace site as PowerPoint presentations (converted to video mp4s).~~

I will post the videos on the dates of our regular lectures:

Thursday, January 13 ~~3~~ Molecules of Life 1

Monday, January 17 ~~4~~ Molecules of Life 2

Thursday, January 20 ~~6~~ Cells 1

These videos will not be ~~as~~ ~~synchronous~~. You can view them any time after they are posted. ~~You do not have any obligations at the specific days and time of your regular lecture section.~~

I will also post skeletal lecture notes ~~as~~ pdfs that you can download. You should have them with you as you go through the lecture. Each chapter of lecture notes has study questions at the end, with answers, that you should attempt.

If, fingers crossed, ~~we are back F2F on Monday, January 24, I will be in class to deliver live lectures. However, I will still post mp4s of the lectures for those students who have health vulnerabilities or who live with people who have such vulnerabilities.~~ ~~I will also continue to post lecture notes pdfs for each topic that you should bring to class.~~

If we remain online past January 24, I will post the mp4s ~~of~~ ~~PowerPoints~~ ~~as~~ usual along with the lecture note pdfs.

Zoom sessions and office hours

Zoom Q and A sessions (come and go as you please; I will ~~be~~ ~~doing~~ some problems and answering your questions, not lecturing): Wednesday, ~~06, 3:00~~ ~~PM on January 12~~ (course business Q and A), 19, 26, February 2, 9, March ~~The invitation:~~

<https://uvic.zoom.us/j/82720972250?pwd=OGV5YlRlRHg0UUN5QktSYy9sVHVqQT09>

Meeting ID: 827 2097 2250

Password: 426235

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Labs

There will be no labs during the weeks of January ~~10~~ and January ~~17-21~~.