

**BIOCHEMISTRY 300A**  
**COURSE OUTLINE Term 2022 Fall**

**Territorial acknowledgement** - We acknowledge and respect the lək wəŋən peoples on whose traditional territory the university stands and the Songhees, Esquimalt and W̱SÁNEĆ peoples whose historical relationships with the land continue to this day

**Inclusivity statement** - this classroom is one where everyone will be treated with respect, and I welcome individuals for all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, ability-and other visible and nonvisible differences. All members of this class are expected to contribute to a respectful, welcoming, and inclusive environment for every other member of the class.

*Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, approach the Centre for Accessible Learning (CAL) as soon as possible (<https://www.uvic.ca/services/cal/>.) in order to assess your specific needs.*

**Content:** BIOC 300A provides detailed coverage of foundation topics for students majoring in biochemistry or microbiology. Topics include protein structure and function, enzymes and enzyme kinetics, carbohydrates, lipids, biological membranes, and bioenergetics.

**Place and Time:** ECS123 In person, TWF 11:30 am – 12:20 pm

**Textbook:** Biochemistry by Berg, Tymoczko, Gatto Jr. and Stryer, 9th edition

**Instructor:** Dr. JE Burke email: [jeburke@uvic.ca](mailto:jeburke@uvic.ca), **Office hours:** Thursdays 12-1 pm by zoom, link will be provided on brightspace

**Student assessments will be delivered in class on the dates below, although all tests will be delivered through Brightspace.** Students will have the indicated duration to write the assessment once begun on Brightspace.

**Textbook:** Biochemistry by Berg, Tymoczko, Gatto, and Stryer, 9<sup>th</sup> edition

**Lecture Content:** Each lecture will conform approximately to the organization used in the text. Additional material and examples may be added by the lecturer and will be posted on Brightspace. Readings from the text for each lecture have been assigned and should be read prior to the lecture. Information designed to guide students with the readings is available on Brightspace. **There is no final exam in this course.**

|                             |  |
|-----------------------------|--|
| <b>Sept 7<sup>th</sup></b>  | Introduction to Biochemistry 300A<br>Bonds and buffers, Chapter 1<br>Protein composition and structure, Chapter 2<br>Protein characterization, Chapter 3   |
| <b>Sept 23<sup>rd</sup></b> | <b>Quiz 1 – in class over brightspace (15%)</b><br>Exploring Evolution and bioinformatics Chapter 6<br>Hemoglobin - a model protein, Chapter 7<br>Enzymes - basic concepts and kinetics, Chapter 8 |
| <b>Oct 11<sup>th</sup></b>  | <b>Midterm 1 – in class over brightspace (30%)</b><br>Drug development, Chapter 28<br>Enzyme catalytic strategies, Chapter 9   |

- Enzyme regulatory strategies, Chapter 10  
 Carbohydrates, Chapter 11  
 Lipids and cell membranes, Chapter 12  
**Nov 18<sup>th</sup> Midterm 2 – in class over brightspace (30%)**  
 Membrane channels and pumps, Chapter 13  
**Dec 5<sup>th</sup> Assignment 1 –over brightspace, due 7 days later (Dec 12<sup>th</sup> by 11:59 PM)**  
**(25%)**

**Assessments and Grading Scheme:**

- Sept 23<sup>rd</sup> – Quiz 1 (15%)**- Exam to be written in class at the standard time, but will be carried out online on Brightspace. Students may use the textbook and notes.  
**Oct 11<sup>th</sup> – Midterm 1 (30%)**- Exam to be written in class at the standard time, but will be carried out online on Brightspace. Students may use the textbook and notes.  
**Nov 18<sup>th</sup> – Midterm 2 (30%)**- Exam to be written in class at the standard time, but will be carried out online on Brightspace. Students may use the textbook and notes.  
**Dec 5<sup>th</sup> – Take home assignment (25%)**- Written through brightspace, students may use textbook and notes. The evaluation will be open for 7 days and students will have the entire time to complete the evaluation.

**Quizzes and midterms are in class at the standard class time, and will be administered through brightspace, please inform the instructor if you need to arrange for a loaner laptop to be provided during the exam. Students are not allowed to work in groups or use materials external to the course including internet resources. Students doing so will be in breach of the university’s academic integrity policy.**

**Techniques to be used in assessing performance in the course:**

Grading of multiple choice and short answer written quiz and longer form exam questions.

**UVic Grading Scheme**

|                      |         |                      |         |                      |         |             |      |
|----------------------|---------|----------------------|---------|----------------------|---------|-------------|------|
| <b>A<sup>+</sup></b> | 90 -100 | <b>B<sup>+</sup></b> | 77 - 79 | <b>C<sup>+</sup></b> | 65 - 69 | <b>F</b>    | < 50 |
| <b>A</b>             | 85 - 89 | <b>B</b>             | 73 - 76 | <b>C</b>             | 60 - 64 | <b>N **</b> | < 50 |
| <b>A<sup>-</sup></b> | 80 - 84 | <b>B<sup>-</sup></b> | 70 - 72 | <b>D</b>             | 50 - 59 |             |      |

**\*\* N grades**

Students who have completed the following elements will be considered to have completed the course and will be assigned a final grade:

- *Quiz 1, Midterm 1+2, and final assignment*

Failure to complete one or more of these elements 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.

**DEPARTMENT INFORMATION AND POLICIES**

1. The Department of Biochemistry and Microbiology upholds and enforces the University’s policies on academic integrity. These policies are described in the current University Calendar. All students are advised to read this section.

2. Cell phones, computers, and other electronic devices must be turned off at all times during live class sessions unless being used for the purpose of connecting and engaging with the class.
3. No recordings of live lectures are permitted without permission of the instructor. However, many courses will be recorded by the instructor for accessibility for students unable to attend. If you do not wish to be recorded, contact your instructor to determine if alternative arrangements can be made. Attendance and engagement in the classroom is an integral part of the learning process and cannot be substituted with recordings. It is at the instructor's sole discretion whether they provide a recording or give permission to students to record a lecture. There is no obligation to do so nor is there any expectations about the quality of the recordings. Nor should students assume a lecture will be recorded as instructors may withdraw access to recordings or permission to record. It is the responsibility of students who miss lectures to catch up in the material through extra readings, and obtaining notes from fellow students. Students who miss several lectures due to illness should contact their instructors to discuss options.
4. Students and instructors are expected to assess their health daily and avoid campus if they are ill.
5. Course materials, such as notes, problem sheets, quizzes, examinations, example sheets, or review sheets, may not be redistributed without the explicit written permission of the instructor.
6. Students are expected to be available for all exams. Instructors may grant deferrals for midterm examinations for illness, accident, or family affliction. Although students do not require documentation, students must contact their instructor and BCMB office ([biocmicr@uvic.ca](mailto:biocmicr@uvic.ca)) with the reason for their absence within 48 hours after the midterm exam. The Department will keep a record of the absences. It is the responsibility of the student to ensure all required components are complete, and to arrange deferred exams/assignments with the instructor, which normally should occur within one week of the original exam date.
7. The Department of Biochemistry and Microbiology considers it a breach of academic integrity for a student taking a deferred examination to discuss the exam with classmates. Similarly, students who reveal the contents of an examination to students taking an examination are considered to be in violation of the University of Victoria policy on academic integrity (see current University Calendar). Students must abide by UVic academic regulations and observe standards of scholarly integrity (no plagiarism or cheating). Online exams must be taken individually and not with a friend, classmate, or group, nor can you access notes, course materials, the internet, or other resources without the permission of the instructor. You are prohibited from sharing any information about the exam with others. Use of unauthorized electronic devices and accessing the internet and class material during exams is prohibited unless permission is granted by the instructor. Instructors may use Browser Lockdown Software to block access during classes and exams.
8. **Deferral of a final exam** must be requested with an Academic Concession form and submitted directly to Undergraduate Records. Deferred final exams for fall term courses will be arranged by the instructor. Deferred final exams or spring term courses will be arranged through Undergraduate Records and must be written before the end of the summer term as stipulated in the University Calendar.

9. Requests for review/remark of a midterm exam must be made within one week of the exam being returned.
10. The instructor reserves the right to use plagiarism detection software or other platforms to assess the integrity of student work.
11. Supplemental exams or assignments will not be offered to students wishing to upgrade their final mark.
12. Anonymous participation in online classes is not permitted without permission of the instructor.

### **Important note about COVID-related stress**

The current pandemic is placing added stressors- financial, mental, and physical- on everyone. Your wellbeing is of foremost importance. If you are experiencing difficulties coping, the University has resources to help. Please reach out to Counselling Services, the Centre for Academic Communication, or Learning Assistance Program for assistance.

### **Centre for Accessible Learning**

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, approach the Centre for Accessible Learning (CAL) as soon as possible in order to assess your specific needs.

<https://www.uvic.ca/services/cal/index.php>

### **Course Experience Survey (CES)**

We value your feedback on this course. Towards the end of term you will have the opportunity to complete a confidential course experience survey (CES) regarding your learning experience. The survey is vital to providing feedback to us regarding the course and our teaching, as well as to help the department improve the overall program for students in the future. When it is time for you to complete the survey, you will receive an email inviting you to do so. If you do not receive an email invitation, you can go directly to your [CES dashboard](#). You will need to use your UVic NetLink ID to access the survey, which can be done on your laptop, tablet or mobile device. We will remind you nearer the time but please be thinking about this important activity.