BIOCHEMISTRY 300B
General Biochemistry II
Course Outline: **Summer 2022**

Place: Cornett B129
Time: Mondays: 8:30 am – 10:20 am
Tuesdays, Fridays: 10:30 am - 12:20 pm
***Textbook*:** Biochemistry by Berg, Tymoczko, and Stryer, **9th edition**
Web site: UVic BrightSpace

***Instructors*:** **Dr. J. Lum (Jul 4 – Jul 18)**.
Office hours: By appointment (please email)
email: JLum@bccancer.bc.ca

Dr. J Ausió (Jul 19 – Aug 19)
Office hours: Office hours: 9:00 am-5:00 pm *
email: jausio@uvic.ca

* No office hours will be offered the day before an exam.

- Drs. Lum's & Ausió's lectures will be delivered exclusively face to face. Instances where a student might fell unexpectedly ill during the delivery of the course, will be dealt with on an individual basis.

***Course Description*:** BIOC 300B in conjunction with BIOC300A provides detailed coverage of foundation topics for students majoring in biochemistry or microbiology. In this course, the structures and functions of DNA, RNA and genes are discussed along with the regulation of gene expression in prokaryotes and eukaryotes. Also discussed are metabolic processes and their control. Students need to have a good understanding of the principles of cell biology and organic chemistry before taking this course.

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 Resource Centre for Students with a Disability (RCSD) as soon as possible (http://rcsd.uvic.ca/.) in order to assess your specific needs.
We consider this classroom to be a place where you will be treated with respect, and we welcome individuals for all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expression, 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.
We will gladly honour your request to address you by an alternate name or gender pronoun. Please advise us of this desire early in the semester so that we may make appropriate changes to our records.

Pease see the link below for the students' code of conduct:
https://www.uvic.ca/services/advising/advice-support/academic-units/student-code-of-conduct/index.php

Biochemistry 300B 2021. Lecture Schedule and Topics

Week	Instructor	Date	Topic	Chapter
1	Lum	Jul. 4	Bioenergetics/Glycolysis	15
1	Lum	5	Gluconeogenesis/Citric acid cycle	16
1	Lum	8	Citric acid cycle/Oxidative phosphorylation	17/18
2	Lum	11	Lipid catabolism	*22*
2	Lum	12	Amino acid catabolism	23
2	Lum	15	Amino acid biosynthesis	24
3		18	**EXAM I**	
3	Ausió	19	DNA structure	4 (pages 113-127)
3	Ausió	22	Recognition of DNA by proteins/topological properties of DNA	handout
4	Ausió	25	Topological properties of DNA (cont.)/DNA replication	29 (pages 956-961)
4	Ausió	26	DNA replication in vivo (cont.)/ Fidelity of DNA replication	29
4	Ausió	29	Fidelity of DNA replication (cont.)	29
5	Ausió	Aug 2	RNA synthesis	30
5		5	**EXAM II**	
6	Ausió	8	RNA processing - **TAKE HOME ASSIGNMENT POSTED**	30
6	Ausió	9	Protein synthesis	31
6	Ausió	12	Protein synthesis	31
7	Ausió	15	Regulation of gene expression	32
7	Ausió	16	Regulation of gene expression in eukaryotes	32
7		19	**EXAM III**	

***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. **There is no final exam in this course.**

***Course Evaluation*:**

There will be three examinations as follows:
The first exam will cover material taught from July 4 to July 15 inclusive and will be held on July 18. The second exam will cover material taught from July 19 to August 2 inclusive, and will be held on August 5. The third exam will be held August 19 and will encompass what has been taught during the last section.

A take-home assignment covering all the material until the second exam (July 4- August 2) will be posted on Brightspace on August 8 and will be due by no later than 4:30 p.m. on **August 12.**

The final grade will be obtained from the average of the grades obtained in each of these parts as described below.

Marking Policy:

Date	Evaluation type	Percentage final mark
Jul 18	1st midterm (in class)	25%
Aug 5	2nd midterm (in class)	25%
Aug 8	1st take-home individual assignment • This will be written through Brightspace. • Students may use the textbook and notes. • Students will have time to complete this assignment until **4:30 p.m. August 12.**	25%
Aug 19	3rd midterm (in class)	25%

UVic Grading Scheme

A+	90 -100	**B+**	77 - 79	**C+**	65 - 69	**F**	< 50
A	85 - 89	**B**	73 - 76	**C**	60 - 64	**N ****	< 50
A-	80 - 84	**B-**	70 - 72	**D**	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:

All assignments and tests

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.

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) 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.