

**BIOCHEMISTRY 300B – GENERAL BIOCHEMISTRY II  
COURSE OUTLINE – Winter 2014**

**Instructors:** Dr. J. Ausio email:  
office:  
office hours: Any time every day of the course. No office hours will be offered the day before the midterm and final exams.

Dr. D. Briant email: [dbriant@uvic.ca](mailto:dbriant@uvic.ca)  
Petch 227  
office hours: Tuesday and Wednesday, 10 – 11  
\*\* available outside of these hours by appointment \*\*

Dr. J. Lum email: [jlum@bccancer.bc.ca](mailto:jlum@bccancer.bc.ca)

**Lecture:** Tuesday, Wednesday, Friday: 12:30 – 1:20, ECS123  
**Textbook:** Biochemistry by Berg, Tymoczko, and Stryer, 7<sup>th</sup> edition

**Lecture Notes:** Notes will generally be made available on the Moodle site prior to lectures. Notes are arranged by topic, and a single topic may span multiple lectures. **Lecture notes are not complete**, and students will be responsible for all materials covered in the lectures.

**Techniques to be used in assessing performance in the course:**  
Short answer and long answer exam questions (100% of final grade)

**Conversion of marks to final letter grades:**

**\*\*\* PLEASE NOTE CHANGES TO THE GRADING SCALE \*\*\***

The total mark, calculated from the marks on all of the exams according to the weighting scheme above, will be converted to a percentage and then to a letter grade in the following way:

<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>A<sup>-</sup></b>	80 - 84	<b>B<sup>-</sup></b>	70 - 72	<b>D</b>	50 - 59		

EVALUATION	Date
33% test 1	<i>in class,</i> Tuesday, February 4
33% test 2	<i>in class,</i> Tuesday, March 11
34% final exam	<b>3 hrs, set by registrar</b>

## **DEPARTMENT INFORMATION AND POLICIES**

1. The Department of Biochemistry and Microbiology upholds and enforces the University's policies on plagiarism and cheating. 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 unless being used for a purpose relevant to the class. Students having a cell phone, tablet, or computer on their person during an exam will be assumed to have it for the purpose of cheating.
3. Any recordings of lectures may only be performed with written permission of the instructor, and are for personal use only. The instructor retains copyright to such recordings and all lecture materials provided for the class (electronic and otherwise); these materials must not be shared or reposted on the Internet.
4. Students are expected to be present for the midterm and final exams. Instructors may grant deferrals for midterm examinations for illness, accident, or family affliction, and students must provide appropriate documentation 48 hours after the midterm exam. 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 a deferred examination are considered to be in violation of the University of Victoria policy on academic integrity (see current University Calendar). 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 for 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.
5. Scan sheets for multiple choice exams (bubble sheets) will not be made available for review. Therefore, in addition to filling in answers on the scan sheet, students should also circle their answers in ink on their exam.
6. Professors may refuse to review/remark exams not written in ink. In addition, requests for review/remark of a midterm exam must be made within one week of the exam being returned. Students are expected to promptly pick up midterm exams after marking has been completed, either in class or from the instructor.
7. Examination papers that have pages removed, or are mutilated will not be marked.

**Tentative Class Schedule:**

<b>Lec #</b>	<b>Date</b>	<b>Topic</b>	<b>Instructor</b>	<b>Chapter</b>
1	Jan 7	Introduction to Metabolism	D. Briant	
2	8	Bioenergetics	D. Briant	15
3	10	Glycolysis	D. Briant	16
4	14	(continued)	D. Briant	16
5	15	Gluconeogenesis	D. Briant	16
6	17	Citric Acid Cycle	J. Lum	17
7	21	(continued)	J. Lum	17
8	22	(continued)	J. Lum	17
9	24	Chemiosmosis and ATP Synthesis	J. Lum	18
10	28	(continued)	J. Lum	18
11	29	(continued)	J. Lum	18
12	31	Glycogen Metabolism	D. Briant	21
	<b>Feb 4</b>	<b>TEST 1 (33%)</b>	Lum/Briant	
13	5	Fatty Acid Degradation and Synthesis	D. Briant	12, 22
14	7	(continued)	D. Briant	12, 22
15	18	(continued)	D. Briant	12, 22
16	19	Lipids, Cholesterol and Their Synthesis	D. Briant	12, 26
17	21	Protein and Amino Acid Catabolism	D. Briant	23
18	25	Structure of nucleotides and DNA	J. Ausio	4
19	26	DNA conformations and RNA structure Mechanisms of protein-DNA recognition	J. Ausio	4
20	28	DNA replication <i>in vitro</i>	J. Ausio	28
21	Mar 4	DNA replication <i>in vivo</i>	J. Ausio	28
22	5	Transcription (RNA polymerases)	J. Ausio	29
23	7	Transcription in prokaryotes	J. Ausio	29
	<b>Mar 11</b>	<b>TEST 2 (33%)</b>	(Briant/Ausio)	
24	11	Eukaryotic transcription	J. Ausio	29
25	12	(continued)	J. Ausio	29
26	14	RNA processing	J. Ausio	29
27	18	Protein synthesis (generalities)	J. Ausio	29
28	21	Protein synthesis (i)	J. Ausio	30
29	25	Protein synthesis (II)	J. Ausio	30
30	26	Protein synthesis (III)	J. Ausio	30
31	28	Transcriptional regulation	J. Ausio	30
32	Apr 1	Regulation of gene expression in prokaryotes	J. Ausio	31
33	2	Regulation of gene expression in eukaryotes	J. Ausio	32
34	4	Review	J. Ausio	
	<b>TBD</b>	<b>FINAL EXAM (34%)</b>	(Briant/Ausio)	