

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

**Instructors:** Dr. D. Briant email: [dbriant@uvic.ca](mailto:dbriant@uvic.ca)  
Petch 227  
office hours: Tuesday and Wednesday, 1:30 – 2:30  
\*\* available outside of these hours by appointment \*\*

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

**Lecture:** Tuesday, Wednesday, Friday: 12:30 – 1:20, ECS124  
**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 and tutorial quizzes (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>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:

- (both midterms and the final exam must be completed)

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

EVALUATION	Date
2% tutorial quizzes	<b>quizzes from four Friday tutorials for D. Briant section</b> , June 13, June 20, June 27, July 25
33% test 1	<b>in class</b> , Tuesday, June 03
30% test 2	<b>in class</b> , Tuesday, July 02
35% final exam	<b>2 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	May 6	Structure of nucleotides and DNA	J. Ausio	4
2	7	DNA conformations and RNA structure Mechanisms of protein-DNA recognition	J. Ausio	4
3	9	DNA replication <i>in vitro</i>	J. Ausio	28
4	13	DNA replication <i>in vivo</i>	J. Ausio	28
5	14	Topological aspects of DNA	J. Ausio	28
6	16	(continued)	J. Ausio	28
7	20	Transcription (RNA polymerases)	J. Ausio	29
8	21	Transcription in prokaryotes	J. Ausio	29
9	23	Eukaryotic transcription	J. Ausio	29
10	27	(continued)	J. Ausio	29
11	28	RNA processing	J. Ausio	29
12	30	Review	J. Ausio	
	<b>June 3</b>	<b>TEST 1 (33%)</b>	<b>J. Ausio</b>	
13	June 4	Transcription regulation	D. Briant	30
14	6	Regulation of gene expression in prokaryotes	D. Briant	31
15	10	Regulation of gene expression in eukaryotes	D. Briant	32
16	11	Protein synthesis (i)	D. Briant	30
17	13	Protein synthesis (ii)	D. Briant	30
18	17	Introduction to Metabolism	D. Briant	
19	18	Bioenergetics	D. Briant	15
20	20	Glycolysis	D. Briant	16
21	24	(continued)	D. Briant	16
22	25	Gluconeogenesis	D. Briant	16
23	27	Glycogen Metabolism	D. Briant	21
	<b>July 2</b>	<b>TEST 2 (30%)</b>	<b>D. Briant</b>	
24	4	Citric Acid Cycle	J. Lum	17
25	8	(continued)	J. Lum	17
26	9	(continued)	J. Lum	17
27	11	Chemiosmosis and ATP Synthesis	J. Lum	18
28	15	(continued)	J. Lum	18
29	16	(continued)	J. Lum	18
30	18	Fatty Acid Degradation and Synthesis	D. Briant	12, 22
31	22	(continued)	D. Briant	12, 22
32	23	(continued)	D. Briant	12, 22
33	25	Lipids, Cholesterol and Their Synthesis	D. Briant	12, 26
34	29	Protein and Amino Acid Catabolism (i)	D. Briant	23
35	30	Protein and Amino Acid Catabolism (ii)	D. Briant	23
36	August 1	Review	D. Briant	
	<b>TBD</b>	<b>FINAL EXAM (35%)</b>	<b>Briant/Lum</b>	