

**BCMB 301B Laboratory Schedule Summer 2016**  
(M 1-5, T 1-3, W 1-5, R 1-3 PM)

| Week | Date        | Lab(s)                                                                                      | Day 1                                                                                                                | Day 2                                                                                                   | Due Dates                                                               |
|------|-------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| 1    | July 4, 5   | Introduction<br>Lab 1: Irreversible Inhibition<br>Lab 2: Characterization of Salmonella LPS | Introduction<br>Lab 1: Irreversible Inhibition                                                                       | Lab 2: Extract LPS, Prepare SDS-PAGE                                                                    | Academic Integrity Quiz (due by 11:59 pm on Sun, July 10)               |
|      | July 6, 7   | Lab 2: Characterization of Salmonella LPS                                                   | Lab 2: SDS-PAGE , Serum Killing                                                                                      | Lab 2: Silver Stain, Analysis of Serum Killing Plates                                                   |                                                                         |
| 2    | July 11, 12 | Lab 3: Intracellular Invasion of Mammalian HEp-2 Cells by <i>E.coli</i>                     | Lab 3: Invasion Assay & Trypsinization                                                                               | Lab 3: Count Plates, Look at Cells                                                                      | Day 1: Lab 1 Summary                                                    |
|      | July 13, 14 | Lab 4: Recombinant DNA Technology                                                           | Lab 4: Isolation of Genomic DNA                                                                                      | Lab 4: Quantify DNA, Purity Determination, PCR                                                          | Day 2: Lab 2 Summary<br>Day 2: Lab 4 Pre-lab Assignment (p. 4-33, 4-38) |
| 3    | July 18, 19 | Lab 4: Recombinant DNA Technology                                                           | Lab 4: Analysis of PCR , Plasmid preps, Nanodrop, Restriction Digests, Prepare Agarose Gel                           | Lab 4: Agarose Gel Electrophoresis, Ligation                                                            | Day 1: Lab 3 Summary                                                    |
|      | July 20, 21 | Lab 4: Recombinant DNA Technology<br>Lab 5: Transposon Mutagenesis                          | Lab 4: Prepare Competent Cells, Transformation<br>Lab 5: Phage Titrating                                             | Lab 5: Analyze Phage Titre Plates                                                                       | Day 2: Lab 5 Result Tables                                              |
| 4    | July 25, 26 |                                                                                             | <b>Study Block</b>                                                                                                   | <b>Midterm (Labs 1- 3)</b>                                                                              |                                                                         |
|      | July 27, 28 | Lab 4: Recombinant DNA Technology<br>Lab 5: Transposon Mutagenesis                          | Lab 4: Examine Transformation Plates & Controls, Colony PCR, Prepare Agarose Gel<br>Lab 5: Transposition Mutagenesis | Lab 4: Analysis of PCR by Agarose Gel Electrophoresis<br>Lab 5: Transposition Mutagenesis Spread plates | Day 2: Lab 5 Result Tables                                              |
| 5    | Aug 1, 2    | Lab 5: Transposon Mutagenesis                                                               | BC Day- no labs                                                                                                      | Lab 5: Analyze Plates, Replica Plating                                                                  |                                                                         |
|      | Aug 3, 4    | Lab 5: Transposon Mutagenesis                                                               | Lab 5: Grid Plate, Streak Lac <sup>-</sup> mutants                                                                   | Lab 5: Amino Acid Pool Plates, Lac <sup>-</sup> Mutants onto Differential Media                         | Day 2: Lab 4 Summary<br>Day 2: Lab 5 Result Tables                      |
| 6    | Aug 8, 9    | Lab 5: Transposon Mutagenesis                                                               | Lab 5: Interpret Plates                                                                                              |                                                                                                         | Day 1: Lab 5 Result Tables                                              |
|      | Aug 10, 11  |                                                                                             |                                                                                                                      |                                                                                                         | Day 1: Lab 5 Discussion Questions 1, 2, 3                               |
| 7    | Aug 15, 16  |                                                                                             |                                                                                                                      |                                                                                                         | Day 1: Lab 5 Class Data Result Table & Discussion Questions 4, 5, 6     |
|      | 17, 18      |                                                                                             | <b>Study Block</b>                                                                                                   | <b>Final Exam (Labs 4 – 5)</b>                                                                          |                                                                         |

## Evaluation

The final mark will be based on:

|                      |     |
|----------------------|-----|
| lab summaries        | 30% |
| lab journal          | 10% |
| practical assessment | 10% |
| midterm exam         | 15% |
| final exam           | 35% |

Final course percentages and assignment of letter grades\*:

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

\*All percentages will be rounded to the nearest whole number. For example, a calculated percentage of 79.49% will be recorded as 79% whereas 79.50% will be recorded as 80%.

### \*\* N grades

Students who have completed the following elements will be considered to have completed the course and will be assigned a final grade: midterm, final examination, in-class laboratories, all assignments and lab summaries. 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.

## Attendance

Laboratory attendance and punctuality is compulsory. Failure to attend a lab or to arrive on time for a lab without prior arrangement or a written medical excuse may result in the forfeit of all marks associated with the lab. A change of lab section must be arranged with the lab instructor **prior** to the lab period.

Students who miss a lab are responsible for maintaining their lab journal and for obtaining the data in order to write up the lab report. This may involve a student performing the lab once they have recovered.

## 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 <http://ces.uvic.ca>. You will need to use your UVic NetLink ID to access the survey, which can be done on your laptop, tablet or mobile device.

## Course Accessibility

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.

## 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 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. 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.
5. 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.

6. Multiple choice scan sheets for machine scoring (bubble sheets) are considered the authentic exam answer paper and will be retained by the department for 1 year.
7. Professors may refuse to review/remark exams not written in indelible ink. In addition, requests for review/remark of a midterm exam must be made within one week of the exam being made available.
8. Examination papers that have pages removed, or are mutilated will not be marked.
9. Professors and instructors reserve the right to use plagiarism detection software or other platforms to assess the integrity of student work.