

BCMB489 Special Topics RN10295

Molecular Diagnostics

Course Outline: Fall 2020

Course Delivery

## Course Structure

### Module 1 Overview of Molecular Diagnostics (MDx)

- Week 1 (September-95)
  - what is the definition of molecular diagnostic?
  - what basic technologies are used in nucleic acid based MDx?
  - what testing strategies have been used in the covid pandemic?
  - what do you know and what do you need to learn about nucleic acid based MDx?
- Week 2 (September 122)
  - what are the key performance parameters used to determine testing quality?
  - how do these performance parameters affect the accuracy of the tests?
  - how many and what kinds of tests have been approved through the FDA "emergency use authorization" (EUA) process?
  - what went well and what didn't go well in the covid testing landscape?

### Module 2 Developing a covid test nucleic acid extraction

- Week 3 (September2229)
  - what are clinical sample types for covid testing?
  - how much virus is in these samples?
  - what are the challenges of trying to extract viral RNA from each sample?
- Week 4 (September 29October 6)
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Grading:

Category of Work

Due Dates

% of final grade



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.

7. 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.
8. Requests for review/remark of a midterm exam must be made within one week of the exam being returned.
9. The instructor reserves the right to use plagiarism detection software or other platforms to assess integrity of student work.
10. Supplemental exams or assignments will not be offered to students wishing to upgrade their final mark.
11. Anonymous participation in online classes is not permitted without permission of the instructor.

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

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 address 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, please contact the instructor.