3. All emails will be responded to within 48 hours during weekdays (not including weekends and holidays). Emails will usually be addressed during regular work hours (9:00 am to 5:00 pm). We may choose, at our discretion, to respond outside these hours, depending on availability.

# 3. Course Syllabus, Schedule, Delivery Mode

A laboratory course designed to promote understanding of the scientific method by acquainting students with selected technical and conceptual tools that will enable them to generate, analyze and communicate data from experimental investigations of their own design in the areas of cell biology, population biology and genetics

### **Learning Outcomes:**

- 1. Perform proper pipetting technique
- 2. Utilize and understand the operation of basic scientific instruments using proper technique
- 3. Understand the process of bacterial cloning and purpose of each step of the cloning process.
- 4. Explain downstream applications of bacterial cloning
- 5. Describe the purpose of different controls used in experiments
- 6. Analyze data derived from experiments
- 7. Create tables and figures appropriate for scientific communication
- 8. Design an experiment that uses ecological field methods, employing appropriate controls.
- 9. Describe and analyze the variation that exists within species and ecological communities.
- 10. Present the findings of an experiment as a poster.
- 11. Perform a literature review and summarize the findings.
- 12. Write a scientific review describing an evolutionary process.

### Lab Schedule and Delivery Mode:

Section	Day/Time	Mode of Delivery
200, 201, 202, 203	Tues2 re167.59 13.92 reW*	

### **Key Sessional Dates:**

Classes begin: September 5, 2024 (Official UWO date), Sept 10 (this course) Reading Week: October 1

### Molecular Biology/Instrumentation Unit Topics:

- Week 1: Pipetting and Bacterial Cloning
  - Lab book check (1%) due by start time of your lab section
- Week 2: Transformation, plating and miniprep OR pHing and Microscopy Lab book check (2%) due by start time of your lab section
- Week 3: Transformation, plating and mini prep OR pHing and Microscopy Lab book check (2%) due by start time of your lab section Quiz: covers OLMs from labs 1,2 and 3. Short answer, 30 min. (5%) Completed in lab
- Week 4: Restriction mapping OR Spectrophotometry, standard curve and plate reader 0 G[ )]TETQ EMC /Span /MCID 8/Lang (en-CA)>BDC q0.00000912 0 612 792 reW\*hBT/F3 12 Tf(r)-6(a)

#### **Essential Learning Requirements**

Even when Academic Considerations are granted for missed coursework, the following are deemed essential to earn a passing grade.

Field Work/Writing Poster Presentation Field Work/Writing Written Assignment Molecular Biology/Instrumentation Lab Report A minimum attendance of 3 labs per Unit out of the 5 labs per unit

#### **Coursework with Assessment Flexibility**

By policy, instructors may deny Academic Consideration requests for the following assessments with built-in flexibility:

### **Deadline with a No-Late-Penalty Period**

**Assignments.** Students are expected to submit each of the assignments by the deadline listed. Should extenuating circumstances arise, students <u>do not</u> need to request Academic Consideration and they are permitted to submit their assignment up to 72 hours past the deadline without a late penalty. Should students submit their assessment beyond (72 hours) past the deadline, a late penalty of 25% per day will be applied. Academic Consideration requests may be granted only for extenuating circumstances that <u>started before</u> the deadline and <u>lasted longer</u> than the No-Late-Penalty Period (48 or 72 hours).

## 6. Course Policies:

In Biology 2290F/G participation/attendance will be required for in-person activities.

Course material (i.e. lecture slides, videos, and other supplementary material posted on OWL), team projects, assignments, quizzes, tests, and exams are the intellectual property of your instructor (items bolded are shared with the student and the University) and are for your personal use only.

### Statement on Use of Generative AI (ie. ChatGPT):

Students are permitted to make use of available technological tools, including generative AI tools as supplementary resources in this course. When leveraging these technologies, students are encouraged to critically evaluate the generated content and to integrate it with their own understandings to produce original work. Students are responsible for all text they submitted, and are expected to be knowledgeable of all material in their assignments. In exceptional circumstances, students may be asked to demonstrate their knowledge of their work with an in-person meeting. Please note that large language models may make up incorrect facts and fake citations. Students should ensure that proper referencing of original sources are always included.

# 7. Student Absences

You are permitted to miss up to two labs per unit (Molecular Biology/Instrumentation and Field Work/Writing) without academic consideration.

Students missing more than 2 in-person labs per unit will receive a **grade of "F" for the entire course.** Students who miss the first two in-person sessions for the Fieldwork component are expected to attend the third session, but the grade value for the poster will be shifted to the final exam.

This "F" may be revised to "INC" (incomplete) only upon recommendation from the academic counsellors in your Dean's Office in cases of documented health or compassionate concerns. If an INC is granted by the academic counsellors, then the INC will be completed at the next offering of the course provided that the course is not full.

### **Absences from Final Examinations**

If you miss the Final Exam, please contact the Academic Counselling office of your Faculty of Registration as soon as you are able to do so. They will assess your eligibility to write the Special Examination (the name given by the University to a makeup Final Exam).

You may also be eligible to write the Special Exam if you are in a "Multiple Exam Situation" (e.g., more than 2 exams in 23-hour period, more than 3 exams in a 47-hour period).

If a student fails to write a scheduled Special Examination, the date of the next Special Examination (if granted) normally will be the scheduled date for the final exam the next time this course is offered. The maximum course load for that term will be reduced by the credit of the course(s) for which the final examination has been deferred. See the Academic Calendar for details (under Special Examinations).

# 8. Additional Statements

### **Religious Accommodation**

When conflicts with a religious holiday that requires an absence from the University or prohibits certain activities, students should request an accommodation for their absence in writing to the course instructor and/or the Academic Advising office of their Faculty of Registration. This notice should be made as early as possible but not later than two weeks prior to the writing or the examination (or one week prior to the writing of the test).

Please visit the Diversity Calendars posted on our university's EDID website for the recognized religious holidays:

https://www.edi.uwo.ca.

#### **Accommodation Policies**

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Students with disabilities are encouraged to contact Accessible Education, which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The policy on Academic Accommodation for Students with Disabilities can be f

the centrally administered e-mail account provided to students will

Additional student-run support services are offered by the USC,