

Biology 2290G Course Outline

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1. Course Information

Course Information

Biology 2290F/G is a teaching laboratory course in the UWO Biology program dedicated to enabling students to apply sound experimental investigation and analyses to biological questions. Selected technical, analytical, and communication skills are introduced.

- 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:

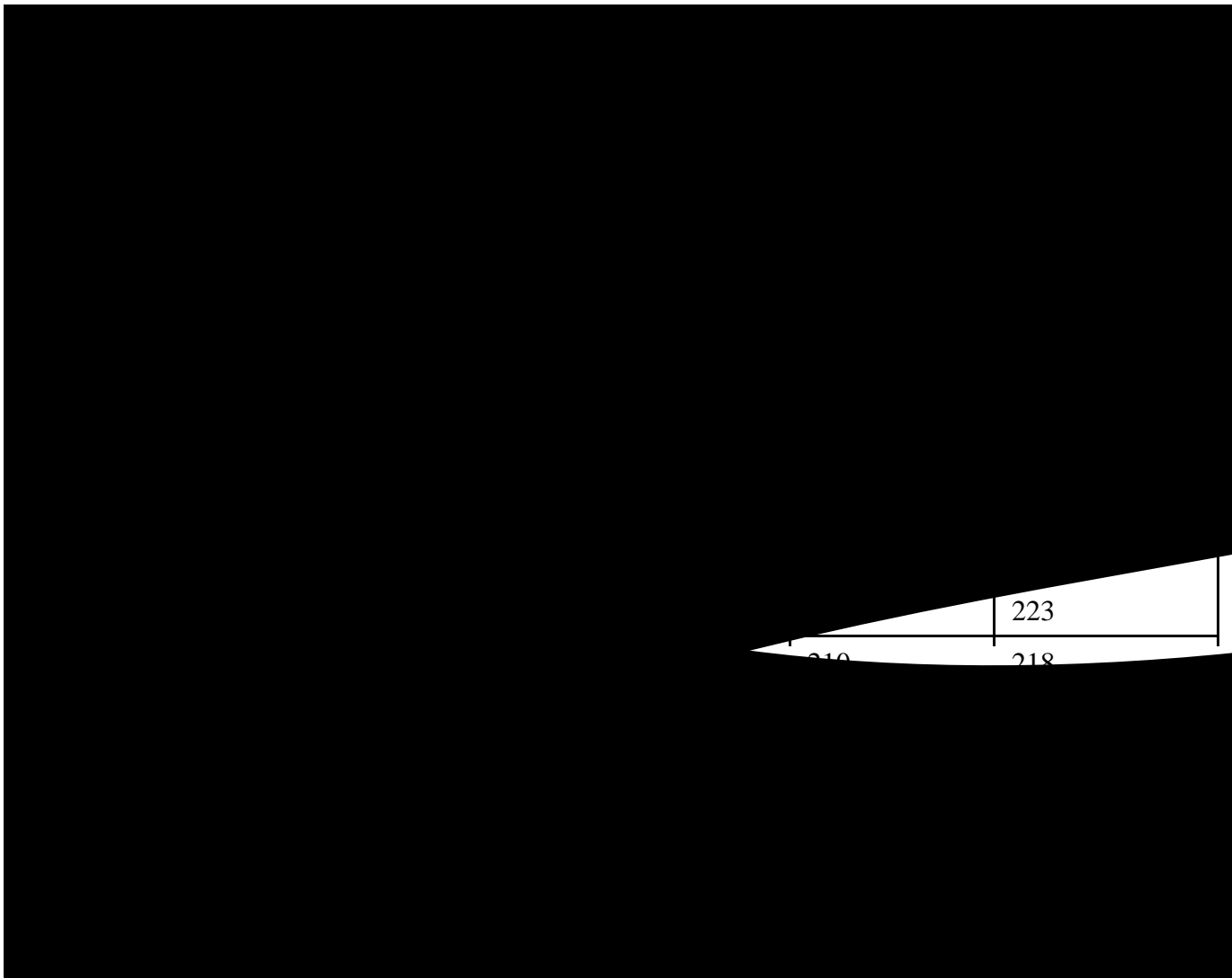
- Perform proper pipetting technique
- Utilize and understand the operation of basic scientific instruments using proper technique
- Understand the process of bacterial cloning and purpose of each step of the cloning process.
- Explain downstream applications of bacterial cloning
- Describe the purpose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

Lab Schedule and Delivery Mode:

Section	Day/Time	Mode of Delivery
200, 201, 202, 203		3 hours in-person lab
204, 205, 206, 207		
208, 209, 210, 211		
212, 213, 214, 215		3 hours asynchronous online learning
216, 217, 218, 219		
220, 221, 222, 223		

Rotation Schedule

All sections will begin the course with the intro week which is 100% online, asynchronous learning. Following the intro week, students will move through two rotations (Molecular Biology/Instrumentation or Field Work/Writing) which consist of in-person labs and online learning modules. Half of the sections will begin with Molecular Biology/Instrumentation and the other half will begin with Field Work/Writing. See rotation schedule below for more details.



Key Sessional Dates:

Classes begin: January 8, 2024

Reading Week: February 19-23, 2024

Classes end: April 8, 2024

Exam period: April 11 -30, 2024

Introductory Week:

Lab Safety quiz (-1% if not complete by Jan 15th, 11:55 pm)

Library Resources quiz (-1% if not complete by Jan 15th, 11:55 pm)

Communicating Research quiz (-1% if not complete by Jan 15th, 11:55 pm)

Academic Integrity and Plagiarism quiz (-1% if not complete by Jan 15th, 11:55 pm)

Molecular Biology/Instrumentation Unit Topics:

Week 1: Pipetting and Bacterial Cloning

Lab book check (1%)

Week 2: Transformation, plating and 00912 y

6. Course Policies:

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

https://uwo.ca/univsec/pdf/academic_policies/appeals/academic_consideration.pdf.

The Student Medical Certificate is available at

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf.

Students missing an assessment of 10% or more will be granted an extension on the assignment. The assignment will be submitted 1 week following the original deadline. Late penalty of 25%/day after that.

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).

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 willination

9. Academic Policies

The website for Registrarial Services is <http://www.registrar.uwo.ca>.

In accordance with policy,

https://www.uwo.ca/univsec/pdf/policies_procedures/section1/mapp113.pdf,

the centrally administered e-mail account provided to students will be the official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at their official university address is attended to in a timely manner.

The use of non-programmable scientific calculators at the final exam is permitted.

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf.

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (<http://www.turnitin.com>).

10. Support Services

Please visit the Science & Basic Medical Sciences Academic Counselling webpage for information on adding/dropping courses, academic considerations for absences, appeals, exam conflicts, and many other academic related matters: <https://www.uwo.ca/sci/counselling/>.

Students who are in emotional/mental distress should refer to Mental Health@Western (<https://uwo.ca/health/>) for a complete list of options about how to obtain help.

Western is committed to reducing incidents of gender-based and sexual violence and providing compassionate support to anyone who has gone through these traumatic events. If you have experienced sexual or gender-based violence (either recently or in the past), you will find information about support services for survivors, including emergency contacts at

https://www.uwo.ca/health/student_support/survivor_support/get-help.html.

To connect with a case manager or set up an appointment, please contact support@uwo.ca.

Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Accessible Education at

http://academicsupport.uwo.ca/accessible_education/index.html

if you have any questions regarding accommodations.

Learning-skills counsellors at the Student Development Centre (<https://learning.uwo.ca>) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.

Western University is committed to a thriving campus as we deliver our courses in the mixed model of both virtual and face-to-face formats. We encourage you to check out the Digital Student Experience website to manage your academics and well-being: <https://www.uwo.ca/se/digital/>.

Additional student-run support services are offered by the USC, <https://westernusc.ca/services/>.

This course is supported by the Science Student Donation Fund. If you are a BSc or BMSc student registered in the Faculty of Science or Schulich School of Medicine and Dentistry, you pay the Science Student Donation Fee. This fee contributes to the Science Student Donation Fund, which is used for the purchase of equipment integral to teaching this course. One or more grants from the Fund have allowed