Course Description: This course requires original biochemical research in the laboratory of a faculty member, and expects the equivalent of at least one day per week to be spent in the lab. A report is submitted at the end of the term. NOTE: This course is intended to be taken in conjunction with BIOC 4604.03, and no credit can be given for one course without the other. The work undertaken in BIOC 4605.03 should be a continuation of that initiated in BIOC 4604.03; hence the report submitted as part of BIOC 4605.03 may include data and analysis incorporated in the BIOC 4604.03 report. In exceptional cases, the research project can be done outside the Department of Biochemistry & Molecular Biology; prior approval must be obtained from the Course Coordinator.

Course Prerequisite: BIOC 4604.03

Course Objectives/Learning Outcomes
- Synthesize relevant background literature
- Design and carry out experiments
- Analyze experimental results
- Evaluate new observations
- Explain relevance of new findings
- Acquire effective oral presentation skills
- Deliver a 10 min research presentation and respond to questions
- Discover whether one has the interest and skills for a research-based career

Course Materials: A manual describing BIOC 4604.03 and 4605.03 in detail is provided.

Course Assessment:
- Final Report, due 5:00 PM April 6, 2020, 25% of final (4604.03 + 4605.03) grade
- Evaluation of lab performance, 30% of final (4604.03 + 4605.03) grade
- Research presentation to Department, week of March 25, 25% of final (4604.03 + 4605.03) grade

Conversion of numerical grades to Final Letter Grades follows the Dalhousie Common Grade Scale
A+ (90-100) B+ (77-79) C+ (65-69) D (50-54)
A (85-89) B (73-76) C (60-64) F (<50)
A- (80-84) B- (70-72) C- (55-59)

Other course requirements:
• attendance at departmental research seminars (Wednesdays, 4:00 PM)
• brief written summaries/evaluations of at least six research presentations

Course Policies:

Short-term absence: Extension of the Final Report due date is possible only in a case of medical illness; in this situation, the student should if possible notify the Course Coordinator or department office prior to or within 48 h of the Final Report due date. The student must also submit a Student Declaration of Absence Form to the Course Coordinator via e-mail within three (3) calendar days following the last day of absence. Other reasons, such as excessive workload, are not normally acceptable. Extension of the due date does not normally exceed 7 calendar days. The grade for a late Report is reduced by an absolute value of 10% for each day after the due date (including weekend and holiday days).

Extension for the research presentation is possible, upon notification of the Course Coordinator or departmental office within 48 h of the presentation date, only in a case of medical illness; in this situation, the student should if possible notify the Course Coordinator or department office prior to or within 48 h of the presentation date. The student must also submit a Student Declaration of Absence Form to the Course Coordinator via e-mail within three (3) calendar days following the last day of absence. The presentation is then normally scheduled within 7 calendar days of the original presentation date. Non-medical reasons are not normally acceptable unless prearranged with the Course Coordinator. A missed presentation for which no satisfactory arrangement is made is assigned a mark of 0%.

The Student Declaration of Absence form can be submitted no more than two (2) separate times per course during a term. A student who exceeds this limit must inform the course instructor(s) and will be required to register with an Advisor at Student Academic Success (SAS). If a student has recurring short-term absences and does not register with SAS, it is at the instructor(s)’ discretion to disallow any further Student Declarations and deny alternative coursework arrangements.

Long-term absence: Refer to the link below.

https://www.dal.ca/dept/university_secretariat/policies/academic/missed-or-late-academic-requirements-due-to-student-absence.html
University Policies and Statements

This course is governed by the academic rules and regulations set forth in the University Calendar and by Senate.

Academic Integrity
At Dalhousie University, we are guided in all of our work by the values of academic integrity: honesty, trust, fairness, responsibility and respect (The Center for Academic Integrity, Duke University, 1999). As a student, you are required to demonstrate these values in all of the work you do. The University provides policies and procedures that every member of the university community is required to follow to ensure academic integrity.

Information: [https://www.dal.ca/dept/university_secretariat/academic-integrity.html](https://www.dal.ca/dept/university_secretariat/academic-integrity.html)

Accessibility
The Advising and Access Services Centre is Dalhousie's centre of expertise for student accessibility and accommodation. The advising team works with students who request accommodation as a result of a disability, religious obligation, or any barrier related to any other characteristic protected under Human Rights legislation (Canada and Nova Scotia).

Information: [https://www.dal.ca/campus_life/academic-support/accessibility.html](https://www.dal.ca/campus_life/academic-support/accessibility.html)

Student Code of Conduct
Everyone at Dalhousie is expected to treat others with dignity and respect. The Code of Student Conduct allows Dalhousie to take disciplinary action if students don’t follow this community expectation. When appropriate, violations of the code can be resolved in a reasonable and informal manner—perhaps through a restorative justice process. If an informal resolution can’t be reached, or would be inappropriate, procedures exist for formal dispute resolution.


Diversity and Inclusion – Culture of Respect
Every person at Dalhousie has a right to be respected and safe. We believe inclusiveness is fundamental to education. We stand for equality. Dalhousie is strengthened in our diversity. We are a respectful and inclusive community. We are committed to being a place where everyone feels welcome and supported, which is why our Strategic Direction prioritizes fostering a culture of diversity and inclusiveness.

Statement: [http://www.dal.ca/cultureofrespect.html](http://www.dal.ca/cultureofrespect.html)

Recognition of Mi’kmaq Territory
Dalhousie University would like to acknowledge that the University is on Traditional Mi’kmaq Territory. The Elders in Residence program provides students with access to First Nations elders for guidance, counsel and support. Visit the office (Rm 3037, McCain Building), e-mail (elders@dal.ca) or leave message (902-494-6803).


Important Dates in the Academic Year (including add/drop dates)
[https://www.dal.ca/academics/important_dates.html](https://www.dal.ca/academics/important_dates.html)

University Grading Practices
[https://www.dal.ca/dept/university_secretariat/policies/academic/grading-practices-policy.html](https://www.dal.ca/dept/university_secretariat/policies/academic/grading-practices-policy.html)
Student Resources and Support

Advising

General Advising: https://www.dal.ca/campus_life/academic-support/advising.html
Science Program Advisors: https://www.dal.ca/faculty/science/current-students/academic-advising.html
Indigenous Student Centre: https://www.dal.ca/campus_life/communities/indigenous.html
Black Advising Centre: https://www.dal.ca/campus_life/communities/black-student-advising.html
International Centre: https://www.dal.ca/campus_life/international-centre/current-students.html

Academic supports

Library: https://libraries.dal.ca/
Writing Centre: https://www.dal.ca/campus_life/academic-support/writing-and-study-skills.html
Studying for Success: https://www.dal.ca/campus_life/academic-support/study-skills-and-tutoring.html
Copyright Office: https://libraries.dal.ca/services/copyright-office.html

Other supports and services

Student Health Services: https://www.dal.ca/campus_life/health-and-wellness/health-services/services.html
Counselling: https://www.dal.ca/campus_life/health-and-wellness/counselling.html
Student Advocacy: https://www.dsu.ca/dsas

Safety

Biosafety: https://www.dal.ca/dept/safety/programs-services/biosafety.html
Chemical Safety: https://www.dal.ca/dept/safety/programs-services/chemical-safety.html
Radiation Safety: https://www.dal.ca/dept/safety/programs-services/radiation-safety.html
Scent-Free Program: https://www.dal.ca/dept/safety/programs-services/occupational-safety/scent-free.html