

Research Project and Seminar Course
4480E/4483E/4500E/4970E

Course Syllabus for Fall 2024/Winter 2025



Western University is committed to a **thriving campus**; therefore, your health and wellness matter to us! The following link provides information about the resources available on and off campus to support students: <https://www.uwo.ca/health/> Your course coordinator can also **guide you** to resources and/or services should you need them.

1. Technical Requirements:



Stable internet connection



Laptop or computer

2. Important Dates:



Classes Begin	Reading Week	Classes End	Study day(s)	Exam Period
September 5	October 12–20	December 6	December 7–8	December 9–22

September 30, 2024, is National Day for Truth and Reconciliation and is a non-instructional day
December 2, 2024: Last day to withdraw from a full course without academic penalty

Classes Resume	Reading Week	Classes End	Study day(s)	Exam Period
January 6	February 15–23	April 4	April 5–6	April 7–30

3. Contact Information

Project Course Coordinators	Course	Contact Information
Dr. Brian Dempsey	4483E (Biochemistry) 4500E (Chemical Biology)	
Dr. Rodney DeKoter	4970E (Microbiology & Immunology)	
Dr. Paul Walton	4480E (Anatomy & Cell Biology)	

4. Course Description and Design

Delivery Mode: In-person

Course Description:

The project course is the core of our Honours Specialization modules. As a course, it is first and foremost a guided educational program in which students work on an independent research project under the mentorship of a faculty supervisor and other lab team members. The goal of the course is to give students the opportunity to participate in authentic scientific research.

Extra Information: 15 hours per week
Course Weight: 1.5 credits

Delivery mode:

This course will be in person. Virtual sessions, if required, will be a combination of synchronous (live) and asynchronous (recorded). Students will be expected to complete work prior to attending sessions. Timetabled sessions could be used for lectures, tutorials, discussions, groupwork, etc. Below are details about the sessions.

Requisites:

Access to the above thesis courses is restricted to students enrolled in one of the Honours Specialization modules offered by the participating departments. Each module has its own prerequisites and requirements. The eligibility of each student is therefore determined prior to enrolment. Nevertheless, meeting the prerequisites and requirements of the thesis course remains the responsibility of the student.

Senate regulation regarding the student’s responsibility for prerequisites:

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

Timetabled Sessions

DATE	TIME	ROOM	TOPIC
August 31, 2024	DEADLINE FOR RESEARCH PROJECT PRE-MATCHING		
September 6, 2024			General course information – Required for all students.
September 11-15, 2024	STUDENT/FACULTY INTERVIEWS		
September 15, 2024	DEADLINE TO SUBMIT PROJECT SUPERVISOR CHOICES by 3:00 PM		
September 16, 2024	Deadline to complete all Lab Safety Training courses on OWL		

September 16, 2024	RESEARCH PROJECTS START – Health & Safety training must be complete		
September 23, 2024	Deadline to complete Responsible Conduct of Research Training and submit certificates on OWL		
October 25, 2024			First Research Project Presentations (15 min/each; 10 minutes + 5 minutes for questions)
January 6, 2025	DEADLINE for first written report (Submit via OWL)		
February 7, 2025			Guidelines for final report writing
March 3, 2025	DEADLINE TO SUBMIT PROJECT OUTLINE TO SUPERVISOR		

March 28, 2025			FINAL PRESENTATIONS (20 min/each; 15 minutes + 5 minutes for questions)
April 2, 2025	DEADLINE TO SUBMIT PROJECT REPORTS ON OWL BRIGHTSPACE		

- Attendance at sessions is required
- An audio recording will be provided of lectures

All course material will be posted to OWL: <https://westernu.brightspace.com/d2l/login>. Any changes will be indicated on the OWL site and discussed with the class.

If students need assistance, they can seek support on the [OWL Brightspace Help](#). Alternatively, they can contact the [Western Technology Services Helpdesk](#). They can be contacted by phone at 519-661-3800 or ext. 83800.

Current versions of all popular browsers (e.g., Safari, Chrome, Edge, Firefox) are supported with OWL Brightspace; what is most important is that you update your browser frequently to ensure it is current. All JavaScript and cookies should be enabled.

5. Learning Outcomes



Upon successful completion of this course, students will be able to:

- Apply the scientific process to answer real research questions.
- Communicate science through oral presentations and written reports.

6. Course Content and Schedule

The course is jointly administered by the Departments of Microbiology & Immunology, Biochemistry, and Anatomy & Cell Biology. Together we organize the placements, scheduling, and seminars. Students in any of these programs can select a supervisor in any of these Departments.

Early September is devoted to required safety and other training courses that **must be completed before starting in the lab**. Project matching must also be completed during this time. Projects begin typically by the third week of September (see schedule).

Students will give their first oral presentation in October (see schedule). This is intended to give students the opportunity to introduce the background and rationale to their project and outline the methods that they will use to answer their research question(s). These presentations are graded by faculty, other members of the department, and peers.

Final written reports are typically due in late March/early April (see schedule). These will be graded by two faculty members that are not your supervisor, usually from the home department of the supervisor. Final oral presentations will occur in early April and will again be graded by faculty, other members of the department, and peers.

Required Online Courses:

There are several online courses that do not contribute to your grade in the project course but are absolutely required to receive a grade. Upload your certificates of completion for each module on the OWL assignment page by the required date. You will not be able to continue your project past this date until all certificates are uploaded. Any late certificates will affect your first term performance review marks.

i) Safety Courses:

Health & safety courses are available online: <https://www.uwo.ca/hr/learning/required/index.html>. Certificates showing completion for these courses must be submitted to your supervisor prior to starting any work in the lab.

Required for all students:

- Worker Health & Safety Awareness
- WHMIS - Workplace Hazardous Materials Information System
- Western Safe Campus Community
- Building Inclusivity through Anti-Racism
- Supporting Disclosures of Gender-Based and Sexual Violence at Western
- AODA - Accessibility in Service
- Cyber Safety Awareness

Required for most students:

- Mental Health Interactive Learning Module
- Laboratory Safety & Hazardous Waste Management
- Biosafety

Additional training may be required – please speak to your supervisor.

ii) Responsible Conduct of Research Modules:

The responsible conduct of research module may be completed through the N2 CITI Canada online education program. Please see full instructions posted on the Assignment.

Link: <https://uwo.ca/research/services/training.html>

Choosing your Project and Supervisor

The research projects undertaken by honours students can take different forms, depending on the lab and type of research. The guiding principle is that students must perform a project designed to address a specific research question or questions. The research question will be chosen in collaboration with your supervisor(s).

By the middle of the summer, you will be given access to a shared document with descriptions of available projects to help you with your search. New projects will be added throughout the summer. Keep in mind that it is not required that you find a supervisor prior to the beginning of the term and projects will still be available. Project pre-matching ends September 1.

Prior to September 1 you may approach faculty that you are interested in working with about potential projects in their research group. If you do find a supervisor prior to the beginning of the term, follow instructions on the OWL site for confirming the match.

For those students who did not arrange for a supervisor prior to September, the second week of the term (see schedule) will be dedicated to interviews to help you find a match. Expect to interview with no more than 3 potential supervisors, after which you will submit your ranked preferences. Faculty will do the same. The course coordinators will do our best to match students with their choice of project based on these rankings.

Expectations For Your Research Project

Projects begin during the third week of September (see schedule). Students are expected to devote a **minimum** of 15 hours per week on their project. You should discuss expectations with your supervisor. Most labs will have group meetings that you should plan to attend. The quality of your experience in this course is highly dependent on the effort that you put in.

NOTE: Safety regulations prohibit anyone from working alone in a research laboratory. Therefore, undergraduate research students are only permitted to work in the lab under the supervision of a senior lab member.

NOTE: Labs can be hazardous places. Ask what the hazards are and know how to handle them safely. Basics will be covered in the mandatory courses at the beginning of September, but you should also receive lab-specific training when you start your project.

7. Participation and Engagement

- Students are expected to participate and engage with content as much as possible

8. Assessment and Evaluation

Below is the evaluation breakdown for the course. Any deviations will be communicated.

Below is the evaluation breakdown for the course. Any deviations will be communicated.

Assessment	Weighting	Due Date	Flexibility
First Oral Presentation	8%	October 25, 2024	Designated
First Written Report	10%	January 6, 2025	72 hour, no late penalty
Second Oral Presentation	12%	March 28, 2025	Designated
Final Written Report	50%	April 2, 2025	72 hour, no late penalty
Final Performance Evaluation	20%	April 30, 2025	Not applicable

Designated Assessment: Instructors are permitted to designate one assessment per course per term as requiring supporting documentation to receive academic consideration. See below for information on academic consideration policy and missed course work. For this course the following assessments have been designated as requiring supporting documentation]:

- First Oral Presentation, October 25th, 2024
- Second Oral Presentation, March 28th, 2025

First Oral Presentation: 8% of final grade

The first oral presentation will occur early on in your project (see schedule). It should be no longer than 10 min, followed by 5 min for questions (15 minutes total). Presentations that go over this time may be cut off. Students should present the research question(s) that their proposal will address, background information and preliminary results, and outline the methods that will be used. Slides should be prepared in PowerPoint or similar. Students should discuss details of content and form with their supervisor prior to preparing their presentations. Oral presentations are expected to take place in person but may be moved to Zoom if required. Sessions will be held concurrently, grouped by field, attended by Faculty and other department members. Project students must attend the entire session. Attendees will grade presentations.



First Written Report: 10% of final grade (along with performance evaluation)

A written Introduction is due in early January (see Schedule) and will be submitted via OWL Brightspace. It should be up to 3 pages long (double spaced), plus references. It should provide an introduction to your project, state your research questions, and summarize your proposed experimental approach. This Introduction and your progress to date in the lab will contribute to your December evaluation by your supervisor.

Final Written Report: 50% of Final Grade

Final reports are due in early April (see schedule for date) and will be submitted via OWL Brightspace. Late reports will lose 10% per day up to 3 days. Reports will not be accepted if more than 3 days late.

Reports are to be written in the style of a research paper with an Abstract, Introduction, Methods, Results, and Discussion sections. Figures and legends should be prepared as if for publication and appended at the end. References should be handled appropriately. Specifics of content and style should be discussed with your supervisor.

Reports should not be longer than 20 pages, double-spaced, not including abstract, figures, and references.

An outline of your thesis is due to your supervisor after winter term reading week (see schedule). Your supervisor can give you general feedback and guidance at this time, but can't re-write your paper for you. It is also acceptable to get feedback from other colleagues in the lab.

After submission, your paper will be marked by at least two faculty that are not your supervisor, but that are familiar with the subject.

NOTE: A 1-page form (provided on OWL) stating the project start date and outlining your contribution to the presented research must be uploaded as a separate document to the OWL site.

NOTE: We will have a lecture specifically on writing your report early in the winter semester (see Schedule).

Final Oral Presentation: 12% final grade

The final oral presentation will typically occur the week after the written report is due (see schedule). It should be no longer than 15 min, followed by 5 min for questions (20 minutes total). Presentations that go over this time will be cut off. Students should present an introduction to their project, rationale, research question(s), and results from the year. Slides should be prepared in PowerPoint or similar. Students should discuss details of content and form with their supervisor prior to preparing their presentations. Sessions will be held concurrently, grouped by field, attended by Faculty and other department members. Project students must attend the entire session.

Final Performance Evaluation: 20% final grade

At the end of the course, your supervisor will evaluate your overall performance in the lab. This will be based on your commitment, effort, initiative, overall understanding of the project and intellectual contribution and performance. This will, in part, be based on the thesis outline that you submit to your supervisor after Reading Week.

Final Note on Evaluation:

Keep in mind that different projects can have very different types of outcomes. Negative experimental results are common, especially in short time frames such as this course. Sometimes experiments just don't work. The excitement of the projects that you are undertaking is that you and your supervisor don't know what the outcome will be, and therefore evaluations are not based necessarily on how much data is produced. All faculty are experienced in what kind of effort is required for any given type of project and this will be taken into consideration at all levels of evaluation.

If problems arise in your project or lab, discuss it first with your supervisor. If this does not resolve the issue, contact your course coordinator.

Information about flexibility in assessment

- Flexibility in assessment has been applied to this course; therefore, academic consideration requests may be denied on the assessments where flexibility is included
- This course employs flexible deadlines for the First and Final Written Reports. The assignment deadlines can be found above in the course outline. For each assignment, students are expected to submit the assignment by the deadline listed. Should illness or extenuating circumstances arise, students 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 grade of zero will be assigned.
- Requests for academic consideration supported by documentation must be submitted within 48 hours of the original deadline. The instructor reserves the right to deny such academic considerations, given the deadline flexibility provided. If you have a long-term academic consideration or an accommodation for disability that allows greater flexibility than provided here, please reach out to your instructor at least one week prior to the posted deadline.

General information about assessments

- All assignments are due at 11:59 pm ET unless otherwise specified
- Students are responsible for ensuring that the correct file version is uploaded; incorrect submissions including corrupt files could be subject to late penalties (see below) or a 0
- Written assignments will be submitted to Turnitin (statement in policies below)
- Students will have unlimited submissions to Turnitin
- Rubrics will be used to evaluate assessments and will be posted with the instructions
- After an assessment is returned, students should wait 24 hours to digest feedback before contacting their evaluator; to ensure a timely response, reach out within 7 days
- Any grade appeals on assignments, quizzes, or midterms must be received within 3 weeks of the grade being posted.

Click [here](#) for a detailed and comprehensive set of policies and regulations concerning examinations and grading. The table below outlines the University-wide grade descriptors.

A+	90-100	One could scarcely expect better from a student at this level
A	80-89	Superior work which is clearly above average
B	70-79	Good work, meeting all requirements, and eminently satisfactory
C	60-69	Competent work, meeting requirements
D	50-59	Fair work, minimally acceptable
F	below 50	Fail

Information about late or missed assessments:

- Assessments submitted after the 72 hour no late penalty period will receive a grade of zero
- All course components must be completed to pass the course.

INC (Incomplete Standing): If a student has been approved by the Academic Advising Office (in consultation with the instructor/department) to complete term work at a later date, an INC will be assigned. Students with INC will have their course load in subsequent terms reduced to allow them to complete outstanding course work. Students may request permission from Academic Advising to carry a full course load for the term the incomplete course work is scheduled.

SPC (Special examination): If a student has been approved by the Academic Advising Office to write a Special Examination and the final exam is the only outstanding course component, an SPC will be assigned. If the class has a makeup exam, the student is expected to write the makeup exam. If the class doesn't have a makeup exam or the student misses the makeup exam for reasons approved by the Academic Advising Office, the student will write the exam the next time the course is offered. Outstanding SPCs will reduce the course load for the term the exam is deferred as outlined in [Types of Examinations](#) policy.

9. Communication

- Students should check the OWL Brightspace site every 24–48 hours
- Students should email their instructor(s) using email.
- Emails will be monitored daily; students will receive a response in 24–48 hours
- Students should post all course-related queries on the discussion forum so that everyone can access the questions and responses

10. Office Hours

- Office hours with Course Coordinators are available upon request

11. Resources

- All resources will be posted in OWL Brightspace

12. Professionalism & Privacy

Western students are expected to follow the [Student Code of Conduct](#). Additionally, the following expectations and professional conduct apply to this course:

- All course materials created by the instructor(s) are copyrighted and cannot be sold/shared (e.g., Must Knows Facebook group, Course Hero, Chegg, etc.)
- Recordings are not permitted (audio or video) without explicit permission
- Permitted recordings are not to be distributed
- Students will be expected to take an academic integrity pledge before some assessments

Western is committed to providing a learning and working environment that is free of harassment and discrimination. All **students**, staff, and faculty have a role in this commitment and have a responsibility to ensure and promote a safe and respectful learning and working environment. Relevant policies include Western's [Non-Discrimination/Harassment Policy \(M.A.P.P. 1.35\)](#) and [Non-Discrimination/Harassment Policy – Administrative Procedures \(M.A.P.P. 1.35\)](#). Any **student**, staff, or faculty member who experiences or witnesses' behaviour that may be harassment or discrimination **must report the behaviour** to the Western's [Human Rights Office](#). Harassment and discrimination can be human rights-based, which is also known as EDI-based, (sexism, racism, transphobia, homophobia, islamophobia, xenophobia, antisemitism, and ableism) or non-human rights-based (personal harassment or workplace harassment).

13. How to Be Successful in this Class

Students enrolled in this class should understand the level of autonomy and self-discipline required to be successful.

1. Invest in a planner or application to keep track of your courses. Populate all your deadlines at the start of the term and schedule your time throughout the course.
2. Make it a daily habit to log onto OWL Brightspace to ensure you have seen everything posted to help you succeed in this class.
3. Follow checklists created on OWL Brightspace or create your own to help you stay on track.
4. Take notes as you go through the lesson material. Keeping handwritten notes or even notes on a regular Word document will help you learn more effectively than just reading or watching the videos.
5. Connect with others. Try forming an online study group and try meeting on a weekly basis for study and peer support.
6. Do not be afraid to ask questions. If you are struggling with a topic, check the online discussion boards or contact your instructor(s) and or teaching assistant(s).
7. Reward yourself for successes. It seems easier to motivate ourselves knowing that there is something waiting for us at the end of the task.

14. Western Academic Policies and Statements

A. Absence from Course Commitments

Students must familiarize themselves with the Policy on [Academic Consideration – Undergraduate Students in First Entry Programs](#)

Students missing course work for medical, compassionate, or extenuating circumstances can request academic consideration by completing a request at the central academic consideration portal. Students are permitted one academic consideration request per course per term **without** supporting documentation. Note that supporting documentation is **always** required for academic consideration requests for examinations scheduled by the office of the registrar (e.g., December and April exams) and for practical laboratory and performance tests (typically scheduled during the last week of the term).

Students should also note that the instructor may **designate** one assessment per course per term that requires supporting documentation. This designated assessment is described elsewhere in this document. Academic consideration requests may be denied when flexibility in assessment has already been included. Examples of flexibility in assessment include when there are assessments not required for calculation of the final grade (e.g. 8 out of 10 quizzes) or there is flexibility in the submission timeframe (e.g. 72 hour no late penalty period).

Please note that any academic considerations granted in this course will be determined by the instructor of this course, in consultation with the academic advisors in your Faculty of Registration, in accordance with information presented in this course syllabus. Supporting documentation for academic considerations for absences due to illness should use the [Student Medical Certificate](#) or, where that is not possible, equivalent documentation by a health care practitioner.

Accommodation for Religious Holidays

Students should review the policy for [Accommodation for Religious Holidays](#). Where a student will be unable to write examinations and term tests due to a conflicting religious holiday, they should inform their instructors as soon as possible but not later than two weeks prior to writing the examination/term test. In the case of conflict with a midterm test, students should inform their instructor as soon as possible but not later than one week prior to the midterm.

Special Examinations

A Special Examination is any examination other than the regular examination, and it may be offered only with the permission of the Dean of the Faculty in which the student is registered, in consultation with the instructor and Department Chair. Permission to write a Special Examination may be given on the basis of compassionate or medical grounds with appropriate supporting documents. To provide an opportunity for students to recover from the circumstances resulting in a Special Examination, the University has implemented Special Examinations dates. These dates as well as other important information about examinations and academic standing can be found [here](#).

B. Academic Offenses

Scholastic offences are taken seriously, and students are directed [here](#) to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence.

Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

C. Accessibility Statement

Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Accessible Education (AE) at 661-2111 x 82147 for any specific question regarding an accommodation or review [The policy on Accommodation for Students with Disabilities](#)

D. Correspondence Statement

The centrally administered **e-mail account** provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at his/her official university address is attended to in a timely manner. You can read about the privacy and security of the UWO email accounts [here](#).

E. Discovery Credit Statement

Students are permitted to designate up to 1.0 Discovery Credit course (or equivalent) for pass/fail grading that can be counted toward the overall course credits required for their degree program. The details of this policy and the deadlines can be found [here](#).

F. Essay Course Guidelines

The guidelines for the minimum written assignments refer to the cumulative amount of written work in a course but excludes written work in examinations. You can read about essay course guidelines [here](#).

An essay course must normally involve total written assignments (essays or other appropriate prose composition, excluding examinations) as follows:

- Full course (1000 to 1999): at least 3000 words
- Half course (1000 to 1999): at least 1500 words
- Full course (2000 and above): at least 5000 words
- Half course (2000 and above): at least 2500 words

The structure of the essay course must be such that in order to pass the course, the student must exhibit some minimal level of competence in essay writing and the appropriate level of knowledge of the content of the course.

G. Turnitin and other similarity review software

All assignments will be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. Students will be able to view their results before the final submission. 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 Western University and Turnitin.com.

15. BMSUE Academic Policies and Statements

Cell Phone and Electronic Device Policy (for in-person tests and exams)

The Schulich School of Medicine & Dentistry is committed to ensuring that testing and evaluation are undertaken fairly across all our departments and programs. For all tests and exams, it is the policy of the School that any electronic devices, e.g., cell phones, tablets, cameras, smart glasses, smart watch or iPod are strictly prohibited. These devices **MUST** be left either at home or with the student's bag/jacket at the front of the room and **MUST NOT** be at the test/exam desk or in the individual's pocket. Any student found with one of these prohibited devices will receive a grade of zero on the test or exam. Non-programmable calculators are only allowed when indicated by the instructor. The program is not responsible for stolen/lost or broken devices.

Copyright and Audio/Video Recording Statement

Course material produced by faculty is copyrighted and to reproduce this material for any purposes other than your own educational use contravenes Canadian Copyright Laws. You must always ask permission to record another individual and you should never share or distribute recordings.

Rounding of Marks Statement

Across the Basic Medical Sciences Undergraduate Education programs, we strive to maintain high standards that reflect the effort that both students and faculty put into the teaching and learning experience during this course. All students will be treated equally and evaluated based only on their actual achievement. **Final grades** on this course, irrespective of the number of decimal places used in marking individual assignments and tests, will be calculated to one decimal place and rounded to the nearest integer, e.g., 74.45 becomes 74, and 74.50 becomes 75. Marks WILL NOT be bumped to the next grade or GPA, e.g., a 79 will NOT be bumped up to an 80, an 84 WILL NOT be bumped up to an 85, etc. The mark attained is the mark you achieved, and the mark assigned; requests for mark “bumping” will be denied.

Statement on the use of Generative Artificial Intelligence (AI) Platforms

Within this course, students are permitted to use AI tools exclusively for information gathering and preliminary research purposes. These tools are intended to enhance the learning experience by providing access to diverse information sources. However, it is essential that students critically evaluate the obtained information, exercise independent thinking, and engage in original research to synthesize and develop their own ideas, arguments, and perspectives. The use of AI tools can serve as a starting point for exploration, with students expected to uphold academic integrity by appropriately attributing all sources and avoiding plagiarism. Assignments and/or lab reports should reflect the students' own thoughts and independent written work. By adhering to these guidelines, students contribute to a responsible and ethical learning environment that promotes critical thinking, independent inquiry and allows them to produce original written contributions.

Support Services

- Students who are in emotional/mental distress should refer to Mental Health @Western Health <https://www.uwo.ca/health/> for a complete list of options about how to obtain help.
- To connect with a case manager or set up an appointment, please contact support@uwo.ca.
- Other important links:
 - [Academic Advising \(Science and Basic Medical Sciences\)](#)
 - [Appeal Procedures](#)
 - [Registrarial Services](#)
 - [Student Development Services](#)
 - [Student Health Services](#)

Statement on Gender-Based and Sexual Violence

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.