Schulich MEDICINE & DENTISTRY | Western Science

Bachelor of Medical Sciences (BMSc) Program

Department of Biochemistry

Student-Directed Research Projects – Biochemistry 4484E

Course Syllabus for Fall 2025/Winter 2026

This course takes place at Western University, which is located on the traditional territories of the Anishinaabek, Haudenosaunee, Lūnaapéewak, and Chonnonton Nations, on lands connected with the London Township and Sombra Treaties of 1796 and the Dish with One Spoon Covenant Wampum.

Students who are in emotional and/or mental distress should refer to https://www.uwo.ca/health/ for a complete list of options about how to obtain help.

The Department of Biochemistry recognizes diversity of identity and experience as a source of strength that promotes excellence, innovation, flexibility and adaptability in our discipline. We embrace, nurture, value and celebrate this diversity.

1. Technical Requirements:

 Stable internet connection  Laptop or computer

2. Important Dates:

Classes Begin	Reading Week	Classes End	Study day(s)	Exam Period
September 4	November 3–9	December 9	December 10	December 11–22

September 30, 2025, is National Day for Truth and Reconciliation and is a non-instructional day
September 12, 2025: Last day to add or drop a Fall/Winter 24-week course

Classes Resume	Reading Week	Classes End	Study day(s)	Exam Period
January 5	February 14–22	April 9	April 10,11	April 12–30

January 30, 2026: Last day to withdraw from a Fall/Winter 24-week course without academic penalty

3. Contact Information

Course Coordinator/Instructor	Contact Information
Dr. Brian Dempsey, he/him	brian.dempsey@uwo.ca
Instructor	
Dr. Trevor Hunter, he/him	thunter6@uwo.ca

Teaching Assistant	Term	Contact Information
Amani Jaafar	Winter	ajaafar2@uwo.ca
Ben Greene	Winter	bgreene@uwo.ca
Mairwyn Hall	Winter	mhall243@uwo.ca
Yasaman Yousefi	Winter	yyousef6@uwo.ca

4. Course Description and Design

Delivery Mode: blended; in-person and online meetings as scheduled

Extra Information: 15 hours per week project work (lecture/independent study/lab work)
Course Weight: 1.5 credits

With faculty mentorship, student-teams will design, build, test, and defend a Synthetic Biology lab-research project. The objective of this course is for students to develop their problem-solving and research abilities. The projects that student-teams propose and develop will be based on a research goal of their choice. In the first term, teams will learn marketing and financial analytical tools with which they will demonstrate the practicality and feasibility of their project, which will be presented and assessed much like they would do if they were submitting a research grant proposal or working for a bio-tech company. In the second term the teams will implement their proposed project in the lab by building and testing their planned design. The projects will require interdisciplinary work that demonstrates how the biotechnology in their project will integrate into society through deliverables that include websites, presentations, and written reports.

Prerequisites: Access to the course is restricted to students enrolled in one of the Honours Modules offered by the participating departments (Biochemistry, Microbiology and Immunology, and Anatomy and Cell Biology). 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. Adjudication into one of the associated HSP modules is required for enrollment in this course.

Timetabled Sessions

Component	Frequency	Date(s) Fall/Winter	Time
In person class meetings	selected dates	1. Lecture sessions T/Th 2. Lab project work (see details below)	1:30 – 3:30 pm and variable
In person lab work*	Daily**	M/T/W/Th/F (Winter Term)	~3 hr/day avg.
Progress meetings	~weekly	Scheduled in-person or online	~15-60 minutes
Biochemisty Seminars	Variable	As recommended	50 minutes

*Lab work may include activities not conducted in the wet-lab space. Including searching databases, reviewing literature, designing constructs and protocols, and processing data.
**Time in the wet lab will begin in the Winter term and be scheduled in collaboration between student groups, TAs, and Dr. Dempsey so that appropriate supervision is available.

- Asynchronous pre-work, such as preparation for progress meetings, must be completed prior to sessions.
- Attendance at all sessions is required.

All course material will be posted to OWL Brightspace: https://westernu.brightspace.com/d2l/login. Any changes will be indicated on the OWL Brightspace 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:

- Utilize Synthetic Biology engineering principles to design, build, and test a research question in the laboratory.
- Be able to present, explain, and defend scientific information, to experts and lay-people, in a variety of formats including websites, presentations, and writing.
- Evaluate the impact, acceptance and entrepreneurial aspects of a proposed project in the existing biotechnology landscape.
- Select and apply appropriate advanced laboratory techniques for the assembly and evaluation of complex biological parts as well as in the use of molecular, biochemical, and cellular biology techniques.
- Apply basic principles of budgeting and feasibility (i.e. financial and market potential) analysis with respect to their idea
- Synthesize all relevant information to create a written analysis of the market and scientific feasibility of their idea
- Give an impactful and persuasive oral presentation analyzing the merits and limitations of their idea
- Be able to conduct self-evaluation and introspection in the context of team-based projects.
- Demonstrate initiative and collaboration on a team project

6. Course Content and Schedule

Fall Schedule*

Week	Dates	Topic	Instructor
1	Sept 4 – 7	Introductory class meeting & Idea Generation	Hunter & Dempsey Th
2	Sept 8 – 14	Identifying opportunities/innovations (T) Screening and Market Analysis (Th)	Hunter T/Th
3	Sept 15 – 21	4Ps of marketing (T) Project development discussion (Th)	Hunter T, Dempsey Th
4	Sept 22 – 28	Marketing Math and Doing Cases (T) Case Study – RDX (Th)	Hunter T/Th
5	Sept 29 – Oct 5	NDTR – no instruction (T) Budgeting (Th)	Hunter Th
6	Oct 6 – 12	Project refinement - meetings (T,Th)	Dempsey T/Th
7	Oct 13 – 19	Project refinement - meetings (T,Th)	Dempsey T/Th
8	Oct 20 – 26	Presentation of ideas to class (T) Project development meetings (Th)	Hunter & Dempsey T Dempsey Th
9	Oct 27 – Nov 2	Case Study – Blue Water (T) Independent group meetings Zoom/virtual (Th)	Hunter T/Th
10	Nov 3 – 9	Reading Week (starts Nov. 3 12:01 AM)	N/A
11	Nov 10 – 16	Independent group meetings Zoom/virtual (T,Th)	Hunter T/Th
12	Nov 17 – 23	Presentation tips in class (T) Conducting project research (Th)	Hunter T, Dempsey Th
13	Nov 24 – 30	Conducting project research (T) Independent group project work (Th)	Dempsey T, Group Th
14	Dec 1 – 7	Conducting project research (T) Independent group project work (Th)	Dempsey T, Group Th
15	Dec 8 – 9	Conducting project research (T) Independent group project work (Th)	Dempsey T, Group Th

Winter Schedule*

Week	Dates	Topic	Instructor
1	Jan 5 – 11	Group Project Research – in lab	Dempsey + TAs
2	Jan 12 – 18	Financial/Marketing analysis - Group Presentations (T) Group Project Research – in lab (Th)	Hunter T, Dempsey + TAs
3	Jan 19 – 25	Group Project Research – in lab	Dempsey + TAs
4	Jan 26 – Feb 1	Group Project Research – in lab	Dempsey + TAs
5	Feb 2 – 8	Group Project Research – in lab	Dempsey + TAs
6	Feb 9 – 15	Group Project Research – in lab	Dempsey + TAs
7	Feb 16 – 22	Reading Week (starts Feb 14th 12:01 AM)	N/A
8	Feb 23 – Mar 1	Group Project Research – in lab	Dempsey + TAs
9	Mar 2 – 8	Group Project Research – in lab	Dempsey + TAs
10	Mar 9 – 15	Group Project Research – in lab	Dempsey + TAs
11	Mar 16 – 22	Group Project Research – in lab	Dempsey + TAs
12	Mar 23 – 29	Group Project Research – in lab	Dempsey + TAs
13	Mar 30 – Apr 5	Group Project Research – in lab	Dempsey + TAs
14	Apr 6 – 9	Group Project Research – in lab	Dempsey + TAs

*The schedules above are tentative and may be subject to change, students will be notified in advance of any alterations to the schedule/content.

In December/January required safety and other training courses that must be completed before starting in the lab. Students will also begin initial project research during this time.

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 Dropbox 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.

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

Additional training may be required depending on the project that is selected

Upon completion of a training module students should upload each completion certificate to the appropriate 4484E OWL-Brightspace assignment. The uploaded certificate (PDF) should have a clear title, for example: *BrianDempsey_WHMIS_Dec25*

Choosing your Project

The student-teams in 4484E will develop their research projects with guidance from Dr. Dempsey and Dr. Hunter. The projects that students develop will be Synthetic Biology based and similar in nature to the type of projects seen in the iGEM competition. Students will be able to explore iGEM projects from teams in previous competitions to help guide them develop their project ideas.

Expectations in the Lab:
In the Winter term students are expected to devote ~10-12 hours per week on their project. The actual hours spent in the wet-lab will vary every week depending on what point the project is at in development. You should discuss expectations with Dr. Dempsey. Typically, there will be weekly group meetings (progress reports and project planning) that you should plan to attend. The quality of your experience in this course is highly dependent on the efforts 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 Dr. Dempsey or a TA. Labs can be hazardous places. Ask what the hazards are and know how to handle them safely. Basics will be covered in the mandatory safety courses you take but you will also receive lab-specific training when you start the in-lab part of your project.

7. Participation and Engagement

- Students are expected to participate and engage with course content as much as possible
- Students should engage during class meeting sessions by contributing to discussions
- Students should interact with Dr. Dempsey and Dr. Hunter to develop their projects and seek feedback and assistance.
- Students should engage with their teams/peers in the course by volunteering assistance with all aspects of the project.
- Students should communicate with the TAs to seek guidance in the lab and to schedule sessions.
- Students should attend recommended seminars in the Biochemistry department. Dr. Dempsey will provide information about these events: either visiting speakers (usually Friday morning) or graduate student seminars/lectures (usually Tuesday afternoon)

8. Assessment and Evaluation

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

Assessment	Format	Weighting	Dates	Flexibility
Project Selection & Plan	Individual	5%	Tues. Oct. 21 + meetings	N/A
Wiki Fall term	Group	5%	Fri. Dec. 5	72 hour no penalty period
Hunter Final Report	Group	10%	Thurs. Jan. 8	72 hour no penalty period
Hunter Jan Presentation	Group	20%	Tues. Jan. 13	Designated
Hunter Class contribution	Individual	10%	End of Fall term	N/A
Dempsey Final Presentation	Group	10%	Tues. Apr. 7	Designated
Wiki Winter term	Group	10%	Tues. Mar. 31	72 hour no penalty period
Dempsey Final Report	Individual	20%	Thur. Apr. 9	72 hour no penalty period
Final Performance Eval.	Individual	10%	End of Course	N/A

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 assessment has been designated as requiring supporting documentation:

- January Presentation – Hunter
- Final Presentation – Dempsey

Project Selection and Design: 5% (Dempsey)
Students will research project ideas and provide a research plan. Students will initially pursue and develop several different project ideas, which will be assessed for feasibility by Dr. Dempsey and student peers. A final project will be selected for each group based on the projects initially selected and designed. Additional instructions will be provided in a separate document.

Early in the course as individuals and as a class students will meet with Dr. Dempsey to discuss how to design an appropriate project based on Synthetic Biology principles. Students will narrow their project options to one idea and then present that idea to the class. At this point one project will be selected for each group to proceed with.

Wiki Website: 5% (Dempsey/Hunter - Fall) + 10% (Dempsey – Winter)
Student groups will need to maintain a wiki website to detail all aspects of their project. This wiki will take the form of an OWL project site (or similar host site). Dr. Dempsey, Dr. Hunter, and the course TAs will be added as members of the site to observe the content. The project should be clearly described on the wiki with content that is logically displayed and easy to find. Additional instructions will be provided in a separate document. The Wiki will be evaluated at the end of each term.

First Oral Presentation: 20% (Hunter)
The first group oral presentation will occur at the start of the Winter term. It should be no longer than 15 min, followed by 5 min for questions (20 minutes total). Presentations that go over this time may be cut off. Students should present justification for their project and conduct a financial/market analysis, based on instruction from Dr. Hunter. Slides should be prepared in PowerPoint or similar. Students should discuss details of content with Dr. Hunter prior to preparing their presentations. Oral presentations are expected to take place in-person during our scheduled class meeting time (see schedule). Students must attend the entire presentation session. Dr. Hunter will grade presentations and Dr. Dempsey will provide feedback. Note: students must submit a copy of their draft slides to Dr. Hunter by 9 am on the the day before the presentations are scheduled.

First Written Report: 10% (Hunter)
A written report about the project is due in early January and will be submitted via the 4484E OWL-Brightspace site. Instructions for the report will be provided separately by Dr. Hunter. The report should provide an introduction to your project as well as a financial/market analysis of your proposed project based on instruction from Dr. Hunter.

Fall Performance Evaluation: 10% (Hunter)
At the end of the Fall term Dr. Hunter will evaluate your contribution to the class sessions and meetings. Around the middle of the Fall term Dr. Hunter will provide you with some an initial evaluation of your performance to allow you to adjust if required. Dr. Hunter will provide separate instruction regarding how this marking will be conducted.

Final Written Report: 20% (Dempsey)
Final reports are due in early April and will be submitted via the 4484E OWL project site. 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 in the style of a research report. Specifics of content and style should be discussed with Dr. Dempsey. Reports should not be longer than 15 pages, double-

spaced, not including abstract, figures, and references. Each student in the group will write and submit a separate report about the group project.

An outline of your planned final report should be provided after winter term reading week. Dr. Dempsey and the TAs 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 your peers in the lab. After submission, your report will be marked by Dr. Dempsey.

Final Oral Presentation: 10% (Dempsey)
The final group oral presentation will typically occur close to the time the written report is due. 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, rational, research question(s), and results from lab research. Slides should be prepared in PowerPoint or similar. Oral presentations are expected to take place in-person during our scheduled class meeting time. Students must attend the entire presentation session. Dr. Hunter (if available), Dr. Dempsey, and the course TAs will grade presentations.

Final Performance Evaluation: 10% final grade
At the end of the course, Dr. Dempsey will evaluate your overall performance in the lab and on the project over the Winter. This will be based on your commitment, effort, initiative, overall understanding of the project and intellectual contribution and performance. Your course TAs will also be consulted to get their feedback on your performance.

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, your group, (and Dr. Dempsey) don't know what the outcome will be, and therefore evaluations are not based necessarily on how much data is produced. Dr. Dempsey and the TAs 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.

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 assignments. 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 late penalty of 50% per day will be subtracted from the assessed grade. 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 EST/EDT 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/Brightspace (unlimited submission)
- Rubrics will be used to evaluate assessments and will be posted with the instructions

- A student might not receive the same grade as their group members if it is determined that the distribution of work was not equal
- 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 request for relief on the marking of assessments must be received by the course instructor within 2 weeks of feedback being posted.
- Assessment re-grading could result in the mark increasing, decreasing, or remaining the same
- Prior to the filing of a written request for relief, students must attempt to resolve the concern regarding a mark or grade through informal consultation with the instructor. If the student is dissatisfied with the decision of the instructor or does not receive a decision from the instructor, a written request for relief must be submitted to the Department Chair or their designate within three (3) weeks from the date that the mark was issued.

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:

- Late assessments without academic consideration will be subject to a late penalty 50 %/day
- Students must complete all assessment items in this course in order to receive a final grade. If a student is unable to complete all assessments with appropriate approved documentation a grade of INC will be applied, and the student will complete the assessment(s) the next time the course is offered.
- Individual students who miss their group's oral presentation will be required to give a presentation on a later date. They may still contribute to their group's report writing if possible.

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, which could impact program progression. 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 for the final exam or the student misses the makeup for the final exam for reasons approved by the Academic Advising Office, the student will write the exam the next time the course is offered, which could impact program progression. Outstanding SPCs will reduce the course load for the term the exam is deferred as outlined in Definitions of Types of Examinations policy.

9. Communication

- Students should check the OWL Brightspace site every 24–48 hours
- Students should contact their instructor(s) and teaching assistant(s) using either email or MS Teams.

- Emails and messaging will be monitored daily; students will typically receive a response in 24–48 hours (or less when using Teams direct messaging).
- This course will use Brightspace, MS Teams, and email for communication
- Students should post all course-related queries on MS Teams to the appropriate group for fast responses and to allow everyone to access the information.

10. Office Hours

Students can schedule meetings with course instructors by email or messaging or knocking.

11. Course Materials

- All resources will be posted in OWL Brightspace
- Relevant Scientific literature (journal articles) are available through Western Libraries
- Dr. Hunter's section of the course will require purchase of case studies that are available for a minimal cost, approximately $15: https://www.iveypublishing.ca/s/ivey-coursepack/a1ROF000004m90H2AQ

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

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. Communicate frequently with your course instructors and TAs about what plans need to be made for lab work and project planning. Plan ahead and prepare for lab activities the following day or week.
2. When planning remember that multitasking is key to a successful and productive project.
3. Keep a well-organized lab book and keep it up to date every day.
4. 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.
5. Read lots of background material for your project. This includes papers with background information on your project, as well as papers related to the protocols you are conducting. It is important to read throughout both terms so that you are knowledgeable and ready to write your final reports.

6. Take notes as you read scientific literature. Keeping handwritten notes or even notes on a regular Word document will help you learn more effectively than just reading.
7. Do not be afraid to ask questions. If you are struggling with an experiment or concept, your lab mentor and supervisor can help you if you come to them with clearly worded questions.
8. 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

Medical, Compassionate, or Extenuating Circumstances

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.

Policy: Academic Consideration – Undergraduate Students in First Entry Programs
Procedures: Student Medical Certificate

Religious Holidays

Students should review the policy for Accommodation for Religious Holidays (Appendix 1). 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.

Policy: Accommodation for Religious Holidays

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.

Policy: Definitions of Types of Examinations

B. Academic Appeals and Scholastic Offenses

Students can file a **request for relief from academic decisions** if the request is based on one or more grounds listed in the policy. Requests for relief generally fall into three categories, which are also listed in the policy. All requests for relief must be supported by evidence. A request for relief from academic decisions process was formally referred to as an appeal. Refer to the policy and procedures about further details and timelines.

Policy: Requests for Relief from Academic Decisions
Procedures: Undergraduate Student Academic Requests for Relief

Scholastic offences are taken seriously, and students are directed to read the appropriate policy, specifically, the definition of what constitutes a scholastic offence.

Policy: Scholastic Offences
Procedures: Undergraduate Scholastic Offences

Students may **appeal** some academic and scholastic disciplinary decisions by a Dean or their designate, to the Senate Review Board Academic (SRBA).

Policy: Senate Review Board Academic Appeals
Procedures: Senate Review Board Academic Appeals

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.

Policy: Academic 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.

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.

Policy: Undergraduate Course Credit
Procedures: Discovery Credits

F. Essay Course Guidelines

The guidelines for the minimum written assignments refer to the cumulative amount of written work, including examinations. An essay course must normally involve total written assignments (essays or other appropriate prose composition) 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

and must be so structured that the student is required to demonstrate competence in essay writing to pass the course. 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.

Policy: Course Numbering Policy, Essay Courses, and Hours of Instruction

G. Statement on the Use of Generative Artificial Intelligence (AI)

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.

NOTE: Students must indicate if and how generative AI was used for any work that they submit in this course. If AI is used for preparation of an assessment it must be clearly and comprehensively stated how the AI resource was used. For the final reports this AI statement should be made at the beginning of the References section so that all faculty who are reading and marking the report are aware. For any other assessments students should indicate AI use in a references (or similar) section.

H. Turnitin and other similarity review software

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 Western University and Turnitin.com.

15. BMSUE Academic Policies and Statements

A. 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 and this will be documented as a Scholastic Offence. Non-programmable calculators are only allowed when indicated by the instructor. The program is not responsible for stolen/lost or broken devices.

B. Copyright and Audio/Video Recording Statement

Course materials produced by faculty are 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.

C. 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*** in this course are rounded to the nearest whole number based on the first decimal place. For example, a grade of 74.49 or lower will be rounded to 74, whereas 74.50 or higher will be rounded to 75.

Marks WILL NOT be arbitrarily increased to the next grade or GPA, e.g., a 79 will NOT be increased to an 80, and 84 WILL NOT be increased to an 85, etc. The mark attained is the mark you achieved, and the mark assigned; requests for arbitrary mark increasing will be denied. Marks will be assigned based on assessments in the syllabus and no extra work or tasks will be assigned to increase a mark.

Course grade rounding provisions, as described above, differ from cumulative and term averages. Cumulative and term averages will be calculated to two decimal places and rounded to the nearest whole number with .45 rounded up, for the purposes of admission to and progression in modules, scholarship retention, and Dean's Honour List.

Policy: Marks/Grades; Definitions of Grades; Grading Scale for Undergraduate Students.

16. Support Services

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

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 the following website:

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.

Other important links:

- Academic Advising (Science and Basic Medical Sciences)
- Learning Development and Success
- Office of the Registrar
- Wellness & Wellbeing
- Western USC Services

Appendix 1: Western University Academic Policies and Procedures

The policies and procedures listed in this syllabus are outlined in the table below. In some cases, a policy does not include an accompanied procedures document.

Academic Policy	Name of Policy/Procedure	Links
General Policy	Marks/Grades; Definitions of Grades; Grading Scale for Undergraduate Students	Policy
General Policy	Structure of the Academic Year	Policy
Registration, Progression, Graduation	Course Numbering Policy, Essay Courses, and Hours of Instruction	Policy
Registration, Progression, Graduation	Undergraduate Course Credit	Policy • Procedures
Examinations	Definitions of Types of Examinations	Policy
Examinations	Evaluation of Academic Performance	Policy
Examinations	Examination Conflicts	Policy
Rights and Responsibilities	Academic Accommodation for Students with Disabilities	Policy
Rights and Responsibilities	Accommodation for Religious Holidays	Policy
Rights and Responsibilities	Policy on Academic Consideration – Undergraduate Students in First Entry Programs	Policy • Procedures
Rights and Responsibilities	Requests for Relief from Academic Decisions (Undergraduate)	Policy • Procedures
Rights and Responsibilities	Requests for Relief from Academic Decisions (Graduate)	Policy • Procedures
Rights and Responsibilities	Scholastic Offences (Undergraduate)	Policy • Procedures
Rights and Responsibilities	Senate Review Board Academic Appeals	Policy • Procedures