

Department of Physiology and Pharmacology
Physiology and Pharmacology Laboratory-PhysPharm 3000E

Course Outline for Fall 2026/Winter 2027

This course takes place at Western University, which is located on the traditional lands of the Anishinaabek, Haudenosaunee and the Lūnaapéewak, on lands connected with the Dish with One Spoon Covenant Wampum between the Anishinaabeg and Haudenosaunee and the London Township and Sombra Treaties of 1796. As you go through this course, I encourage you to reflect on how colonialism has impacted how and what we teach, how and what we learn, how we interact with each other and how we acknowledge past injustices. As you are working within your groups in this course, I also encourage you to give a voice to those who do not feel like they have one, encourage and support participation from your peers.

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.

1. Technical Requirements:



Stable internet
connection



Laptop or
computer



Lab book
(hard cover recommended;
any Dollar store will have it)

2. Important Dates:

Classes Begin	Reading Week	Classes End	Study day(s)	Exam Period
September 9	October 10-18	December 9	December 10	December 11–22

September 30, 2026: National Day for Truth and Reconciliation; non-instructional day; see schedule below for lab options)
September 17, 2026: Last day to add or drop a Fall/Winter 24-week course

Classes Begin	Reading Week	Classes End	Study day(s)	Exam Period
January 4	February 13–21	April 9	April 10, 11	April 12–30

February 1, 2027: Last day to withdraw from a Fall/Winter 24-week course without academic penalty

3. Contact Information

Course Coordinator	Contact Information
Dr. Oana Birceanu	obircean@uwo.ca or Microsoft Teams (faster response)

4. Course Description and Design

A laboratory course that introduces students to research techniques, methodologies, data analysis and scientific communication. Students will select different experiments covering the major systems in the human body and examine them from a physiological or pharmacological perspective. This course is intended for students interested in physiology and/or pharmacology.

Delivery Mode: in person

Almost all our knowledge of physiology and pharmacology is based on the results of laboratory experiments. It was through carefully designed experiments that most of the information presented in lecture (Physiology 3120, 3140A, and Pharmacology 3620) was obtained. The same experimental approach is being used to solve the many remaining mysteries about how the body works and how diseases are treated with medications. We believe that to thoroughly understand the science of physiology and pharmacology, one must understand the experimental basis. This course is targeted at learning the scientific method along with data analysis, which is applied in both disciplines of physiology and pharmacology. Therefore, the laboratory exercises are a fundamental part of the study of physiology and/or pharmacology.

Overall Objectives: These laboratory exercises will

1. illustrate the use of the scientific method, and the nature, complex and endless variability in scientific research.
2. demonstrate the physiological/pharmacological processes studied in class as they apply to a living organism or cell.
3. emphasize the limitations that exist in the methods used in scientific investigation and appreciate as science students, that one must continue to critically evaluate the material presented in lectures and textbooks.

Prerequisite(s): Biochemistry 2280A; either Chemistry 2213A/B or Chemistry 2273A; one of Physics 1201A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B; and 1.0 course from: Applied Mathematics 1201A/B, Calculus 1000A/B, Calculus 1301A/B, Calculus 1500A/B, Calculus 1501A/B, Mathematics 1600A/B. Integrated Science 1001X can be used as a prerequisite in place of Calculus 1301A/B. A minimum average of 75% in the Fall/Winter of the most recent academic year is required. Open only to students who are registered in Years 3 or 4.

Pre-or Corequisite(s): Either Physiology 3120 or Pharmacology 3620 (Physiology 3120 is strongly recommended).

Corequisite(s): N/A

Antirequisites: The former Physiology 3130z or Pharmacology 3580z.

Extra Information: 3 laboratory hours, 1.0 course.

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

Component	Date(s)	Time
Laboratory	Section 001: Tuesday AM	9:30 a.m. – 12:20 p.m.
	Section 002: Tuesday PM	1:30 p.m. – 4:20 p.m.
	Section 003: Wednesday PM	1:30 p.m. – 4:20 p.m.

- ☒ **WHMIS certification is required from every student attending the laboratory. If you do not have the certification by week 3 of the course, you will not be permitted to continue with the experiments.**
- ☒ Asynchronous pre-work must be completed prior to the laboratory sessions. You are expected to come to the laboratory having already read the requirements for that day.
- ☒ Attendance at sessions is required. This course has 4 rotations, each with its own deliverables. The sessions are 6-7 weeks long. If you miss 2 or more laboratory sessions within a rotation, you will not be permitted to submit the final deliverable for that session. The weight may be shifted to a future similar component of the course, if one such exists. Arrangements should be made with the course coordinator (obircean@uwo.ca) in the event that a laboratory week is missed.
- ☒ We do not have make-up sessions for this course. In the event that you miss your laboratory session unexpectedly, in case of illness or a family situation, you may attend a different session within the same week. If this is your situation, you need to reach out to Dr. B. as soon as possible. If you miss a laboratory session without making arrangements with Dr. B., you will need to provide an accommodation for the missed laboratory. If no accommodation is provided, the missed laboratory will count towards your missed class for that Rotation, which will be handled as described above.
- ☒ A recording may be provided of the introductory sessions through Microsoft Teams.
- ☒ Closed captioning will be provided on audio or video recordings.

All course material will be posted to OWL Brightspace: <https://westernu.brightspace.com/d2l/login>. Experimental data and communication pertaining to specific experiments will be communicated through Microsoft Teams, in your group's respective experimental channel. Each rotation will have its own Microsoft Teams channel. Any changes to the grading 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:

- develop a hypothesis and design an experiment with appropriate controls to test the hypothesis
- organize, analyze and interpret scientific data, using appropriate experimental and mathematical tools
- select the correct statistical test and apply it to a given data set
- communicate experimental findings, data and concepts effectively to a diverse audience while utilizing a range of formats such as laboratory reports, scientific posters and oral presentations
- work and learn in both individual and collaborative ways, with others of diverse abilities
- demonstrate an ethical approach to physiological and pharmacological research
- familiarize themselves with various experimental techniques (real-time quantitative PCR, enzymatic assays (end point and kinetic), western blots, cell culture, etc.)
- demonstrate basic bench skills necessary for a research laboratory

6. Course Content and Schedule

Fall Schedule

Week	Dates	Topic	Instructor
1	Sept 9–13	No class	
2	Sept 14–20	R1-W1: Welcome and intro lecture; Q&A; Practicum info; Pipetting activity	Dr. Birceanu Hailey Drury Baur Negmetzhanov
3	Sept 21–27	R1-W2: Ethics in animal research talk; Intro talk about experimental design; Serial dilution practice	“
4	Sept 28–Oct 4	Truth and Reconciliation Day - No class BUT will have OPTIONAL in-class practicum on Tuesday Sept 29	Dr. B. and TAs for practicum
5	Oct 5–11	R1-W3 – Intro talk to experiment and Standard curve week	
6	Oct 12-18	Reading week - No class	N/A
7	Oct 19–25	R1-W4: Experimental week	“
8	Oct 26–Nov 1	R1-W5: Data analysis week	“
9	Nov 2–8	R1-W6: Writing time in lab	“
10	Nov 9–15	R2-W1: Experiment background and hypothesis generation	Various instructors
11	Nov 16–22	R2-W2: Experimental data collection	“
12	Nov 23–29	R2-W3: Experimental data collection	“
13	Nov 30–Dec 6	R2-W4: Data analysis week	“
14	Dec 7–9	R2-W5: In class poster presentation	“

Winter Schedule

Week	Dates	Topic	Instructor
1	Jan 4–10	R3-W1: Experiment background and hypothesis generation	Various instructors
2	Jan 11–17	R3-W2: Experimental data collection	“
3	Jan 18–24	R3-W3: Experimental data collection	“
4	Jan 25–31	R3-W4: Experimental data collection	“
5	Feb 1–7	R3-W5: Data analysis	“
6	Feb 8–14	R3-W6: Writing time in lab	“
7	Feb 15–21	Reading Week	N/A
8	Feb 22–28	R4-W1: Experiment background and hypothesis generation	Various instructors
9	Mar 1–7	R4-W2: Experimental data collection	“
10	Mar 8–14	R4-W3: Experimental data collection	“
11	Mar 15–21	R4-W4: Experimental data collection	“
12	Mar 22–28	R4-W5: Data analysis	“
13	Mar 29–Apr 4	R4-W6: Oral presentation preparation	“
14	Apr 5–11	R4-W7: Oral presentations	“

7. Participation and Engagement

- ☒ Students are expected to participate and engage with content. Students are expected to actively participate in the designing of the experiment, in its implementation and data collection.
- ☒ Students are expected to come prepared to the laboratory. This means that you will have your book with you, your PPE and the appropriate clothing (no open-toe shoes; must have long pants and hair tied back). Students are also expected to have the protocol in their books, either printed or written. Printers will be provided if you need to print your protocol.
- ☒ It is ok to ask questions if you do not know, but you must have the protocol ready in your book and know what is being done that day in the laboratory **before** you come to the laboratory session. Therefore, all the necessary protocols should be printed for next week the week prior, when you are in the laboratory.
- ☒ Students are expected to participate during laboratory sessions, during meetings with their group members and on Microsoft Teams, as we will be working with shared data sets during lab time. Part of your grade for each deliverable is your participation. Each deliverable has 10 marks that are assigned individually, by the TAs, based on their observations during each rotation. A rubric will be provided for you on Brightspace. Your TAs will check your preparedness and knowledge throughout the rotation.
- ☒ Students are expected to have their laboratory book with them for every laboratory session and to make notes on experiments and data collections. Please note that your lab book is being graded at the end of each rotation. It is your responsibility to upload the appropriate images, showing that your lab book is being updated and complete for each rotation.

8. Assessment and Evaluation

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

Assessment	Format	Weighting	Due Date	Flexibility
Toolboxes Quiz from Toolbox 1, 2 and 3	Multiple choice	2.5%	Sept 25 th at 6:00 p.m.	72 hour no late penalty.
Statistics module quiz	Multiple choice	5%	Oct 2 nd at 6:00 p.m.	
Serial dilution quiz	Fill in the table	5%	Oct 9 th at 6:00 p.m.	
Short report intro & methods	Written assignment	Completion [#]	End of lab section R1-W4	72 hour no late penalty
Short report results	Written assignment	Completion [#]	End of lab section R1-W5	
Lab book	Written	1.25%	Nov 6 th at 6:00 p.m.	
Rotation 1: short report	Written assignment	10%	Nov 6 th at 6:00 p.m.	
[#] Completion	Written	1.25%	All components must be submitted as a good draft for full marks. This is an all or nothing grade.	
Total Rotation 1		25.00%		
ASSIGNMENT 1	Written	10%	Opens Nov 20 th at 8:00 a.m. Due Nov 27 th at 6:00 p.m.	Take-home – one week to complete 72 hour no late penalty
Lab book	Written	1.25%	Dec 4 th at 6:00 p.m.	72 hour no late penalty
Poster presentations	Poster group presentation	10%	Dec 8 th /9 th in lab	Not applicable; designated assignment
PRACTICUM TIME in lab	In person	Weighted when you complete it 2.5%	Must be completed by December 9 th 2026	Flexible – you schedule your own time during the course; you have 2 attempts
Total Rotation 2		23.75%		
Long report intro+references	Written	Completion [#]	End of lab session on R3-W3	72 hour no late penalty
Long report methods	Written	Completion [#]	End of lab session on R3-W4	
Long report results	Written	Completion [#]	End of lab session on R3-W5	
Rotation 3 long report	Written report	25%	Feb 12 th at 6:00 p.m.	
Lab book	Written report	1.25%	Feb 12 th at 6:00 p.m.	
[#] Completion	Written	1.25%	All components must be submitted as a good draft for full marks. This is an all or nothing grade.	
Total Rotation 3		27.50%		
ASSIGNMENT 2	Written	10%	Opens Mar 12 th at 8:00 a.m. Due Mar 19 th at 6:00 p.m.	Take-home – one week to complete 72 hour no late penalty
Lab book	Written	1.25%	Apr 2 nd at 6:00 p.m.	72 hour no late penalty
Oral presentations	Seminar style presentation	12.5%	Apr 6 th – 7 th in lab	Not applicable; designated assignment
Total Rotation 4		23.75%		
COURSE TOTAL		100%		

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:

- Poster presentation – Due Dec 8th and 9th in lab
- Oral presentation – Due April 6th and 7th in lab

Information about flexibility in assessment

- ✓ Any deviations from the above deadlines will be communicated directly to the students.
- ✓ 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 listed with a 72h no late penalty, students are expected to submit the assignment by the original 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 **10% per 24hr** will be subtracted from the assessed grade. The 24h late penalty starts at +1 minute passed the 72h mark from the deadline of the assessment. **Where a submission is accompanied by academic consideration, 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. Note that weekend days and holidays are counted as regular days. Therefore, for a Friday deadline of 6:00 p.m., the 72 hour no late penalty will take you to a Monday deadline at 6:00 p.m.
- ✓ This course gives you an essay credit. While flexibility in assessments is given throughout the course, the **Short Report in Rotation 1 and the Long Report in Rotation 3 (highlighted in yellow in the table above) must be submitted and a passing grade must be achieved in each for you to pass this course.**
- ✓ The practicum must be completed by all students. You have the Fall term, and two attempts to complete it. **All students must complete the practicum or a mark of 0 will be assigned. There will be no re-weighing of the practicum to another assessment in the course.**

General information about assessments

- ✓ **All work marked “Completion” needs to be completed to get the full completion mark. There will be no exceptions. If one of the items listed as Completion for each rotation is missed or the submission draft is incomplete, then the completion grade will be a 0.**
- ✓ All assignments are due at 6:00 p.m. EST 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 assignments 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 must wait 24 hours to digest feedback before contacting their course instructor; to ensure a timely response, reach out within 7 days.

- ✓ Assessment re-grading could result in the mark increasing, decreasing, or remaining the same. **All regrade requests must be sent to Dr. Birceanu. All regrading will be performed by Dr. Birceanu and NOT by the teaching assistants.**
- ✓ 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 Undergraduate Chair within three (3) weeks from the date that the mark was issued.
- ✓ 15% of your course grade will be evaluated and returned 3 days prior to the drop deadline (see Evaluation of Academic Performance policy below).

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 **10%/24hr** late. The 24 count starts at 1 minute passed the 72h no late penalty from the original deadline.
- ✓ An assessment cannot be submitted after it has been returned to the class; the weight may be transferred to a different assessment of similar weight and format, if the missed assessment is supported by academic considerations office. If a student does not submit the short report in Rotation 1 and the long report in Rotation 3, they will receive a failing grade in the course. Both report must be submitted and passed to receive a passing grade in this course. See below for information on how INC will be handled.
- ✓ Attendance is mandatory in this course. If you miss 2 or more weeks of one rotation of the course without approved academic consideration, you will not be permitted to submit the major **individual** evaluation for that rotation (e.g. report, assignments, etc.). The student will receive a mark of 0 on that deliverable. Please note the requirements regarding the short report in Rotation 1 and the long report in Rotation 3.
- ✓ Make-up assessments may be a different format than the original assessment
- ✓ If either Assignment 1 or Assignment 2 are missed and academic consideration has been provided, the weight of the missed assignment will be transferred to the other. If a student with academic consideration misses a group presentation, they must make arrangements with the course instructor for an alternate evaluation.
- ✓ The short report and the long report must be completed and passed to receive credit in this course. If either one or both of these two reports are missed or if the student received a failing grade on either of these components, the student will receive a failing grade in the course.
- ✓ The weight of the practicum cannot be shifted to another assessment. If the practicum is not completed, a mark of 0 will be assigned to this assessment.
- ✓ Only one special examination (see below) will be offered in January

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.

9. Communication

- ☒ Students should check the OWL Brightspace site every 24–48 hours
- ☒ Students can email the instructor(s) & teaching assistant(s) using MS Teams (preferred) or email
- ☒ Emails/MS Teams will be monitored daily; students will receive a response in 24–48 hours
- ☒ This course will use Brightspace and MS Teams
- ☒ Students should post all course-related queries on Teams

10. Office Hours

- ☒ Office hours will be held remotely on Mondays from 2:00 p.m. – 3:00 p.m., on MS Teams
- ☒ Office hours will be group office hours.
- ☒ For individual office hours, please contact the instructor directly.

11. Course Materials

- ☒ **Students are responsible for buying their own lab books and bringing them to the laboratory for note taking and evaluations. Any Dollar store, hard cover lab book will do (\$1-10/lab book is the expected additional cost).**
- ☒ All resources will be posted in OWL Brightspace.
- ☒ Additional resources will be posted in your respective MS Teams for your specific experiment.

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/upload (e.g., Must Knows Facebook group, Course Hero, Chegg, ChatGPT, 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 and check MS Teams announcements to ensure you have seen everything posted to help you succeed in this class.
3. Follow checklists created on OWL Brightspace (if applicable) or create your own to help you stay on track.
4. Take notes as you go through the lesson material. Your lab book should be your go-to for what

you did in this course. Use it to take any notes during class, as you are talking to your teaching assistants and peers, and for recording your experiments, changes to experiments (if applicable) and data collection.

5. Connect with others. Try forming an online study group and try meeting on a weekly basis for study and peer support.
6. I cannot emphasize enough how important it is to communicate with your teaching assistants effectively. They are there as a resource for you in this course, so please take advantage of their knowledge and skills. Reach out to them if you have questions, connect with them during class, ask them about your experiment and about their journey into graduate school. They each have unique perspectives and experiences, and you can learn so much from them.
7. 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). We are here to support you.
8. Do not be afraid to make a mistake in this course. We are here to support you and guide you. We fully expect you to make mistakes, so go for it! We got you!
9. Please attend office hours. These give me a chance to learn about mishaps in the course, or where mistakes can happen or where you need support, so that I can make sure that you do not fall behind. It is easy to do so in this course, so reach out if you need to talk to your instructor.
10. 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/Procedures 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 [Student Absence 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 Electronic Devices

Electronic devices cannot be used during the active data collection of wet bench laboratory experiments. We will be working with drugs, pesticides and other chemicals in the laboratory, as well as buffers, alcohols and various other solutions. If there is a spill and your device is on the table and affected, we are not responsible for the damage. Please keep your devices off the working bench unless we are doing data analysis or your experiment does NOT use solutions.

H. 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. GenAI may be used by your instructors in this course to guide you through your hypothesis generation, outline presentations and make written language more concise.

I. 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](https://turnitin.com).

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.

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