

**Medical Biophysics**  
**Cancer Therapy: MEDBIO 3467B**

Course Syllabus for 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	Classes End
Monday, January 6, 2025	Monday, April 7, 2025

\* March 7, 2025: Last day to drop a second-term half course without penalty

Reading Week	Study day(s)	Exam Period
February 15–23	April 7-8	April 9-30

**3. Contact Information**



Course Coordinator	Contact Information

Instructor(s) or Teaching Assistant(s)	Contact Information

## 4. Course Description and Design

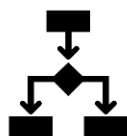
**Delivery Mode:** in-person

### Description:

This course aims to provide students with a breadth of knowledge about cancer therapy and its heterogeneity. The course follows fictional patients to demonstrate the screening and diagnosis of their cancer, and 3 of their potential treatment options (surgery, radiation therapy, and systemic therapy). The course dives into how many of these treatments work for the proposed fictional patients and why these patients may or may not choose these treatments.

**Pre- or corequisite(s):** Medical Biophysics 3501A or Medical Biophysics 3720A. Open only to students who are registered in Years 3 or 4.

### Timetabled Sessions



Component	Date(s)	Time
Lectures	M/W/F	

- If there is asynchronous pre-work, it must be completed 1 day prior to sessions
- Attendance at sessions is required
- Missed work should be completed within 24 hours

All course material will be posted to OWL: <http://owl.uwo.ca>. 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 Help page](#). Alternatively, they can contact the [Western Technology Services Helpdesk](#). They can be contacted by phone at 519-661-3800 or ext. 83800.

[Google Chrome](#) or [Mozilla Firefox](#) are the preferred browsers to optimally use OWL; update your browsers frequently. Students interested in evaluating their internet speed, please click [here](#).

## 5. Learning Outcomes



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

1. Describe the heterogeneity of cancer processes.
2. Describe what cancer is and how it differs from normal cells.
3. Describe how cancer is screened and diagnosed.
4. Describe how surgery, radiation, chemotherapy and immunotherapy are used to treat cancer.
5. Compare and contrast local therapy vs systemic therapy and give the advantages and disadvantages of both approaches.

6. Explain why not all treatment modalities and therapies may not be suitable to treat all cancers. Give examples of each case.
7. Create a simulated, simple cancer therapy plan for a specific type of cancer.
8. Work collaboratively with peers to plan a fictional cancer patient's treatment plan using the information provided about the patient.
9. Discuss the common concerns cancer patients may have about their cancer therapy and how these concerns may affect the patient's willingness to undergo one therapy over another.
10. Critique scientific writing and create a high-quality scientific report and presentation.

## 6. Course Content and Schedule



Week	Dates	Topic	Instructor
1	Jan 6–12	Introduction to Cancer and Breast/Prostate Cancer Screening	
2	Jan 13–19	H&N/Leukemia Screening and Breast/Prostate Diagnosis	
3	Jan 20–26	H&N/Leukemia Diagnosis and Intro to Prostate Surgery	
4	Jan 27–Feb 2	<b>Intro to Cancer Quiz</b> and H&N/Breast Surgery	<b>Quiz on the 27th</b>
5	Feb 3–9	Surgery Guest Speaker and Intro to Radiation Treatment	Surgery Guest Speaker:
6	Feb 10–16	<b>Surgery Quiz</b> and Breast/Prostate Radiation	<b>Quiz on the 10th</b>
7	Feb 17–23	Reading Week	N/A
8	Feb 24–Mar 2	Radiation Guest Speaker and H&N/Leukemia Radiation and Intro to Systemic Therapies	Radiation Therapy Guest Speaker:
9	Mar 3–9	<b>Radiation Quiz</b> and Leukemia/H&N Chemotherapy	<b>Quiz on the 3rd</b>
10	Mar 10–16	Prostate Hormone Therapy, Immunotherapy, Breast Chemotherapy, and Systemic Therapy Guest Speaker	Systemic Therapy Guest Speaker:
11	Mar 17–23	Pathologist Guest Speaker, <b>Chemotherapy/Hormone therapy Quiz</b> , and Presentation Prep	<b>Quiz on the 19th</b> Pathology Guest Speaker:
12	Mar 24–30	Summarizing Case Studies and Start of Project Presentations	
13	Mar 31–Apr 6	Project Presentations and <b>Immunotherapy /Project Quiz</b>	<b>Quiz on the 4th</b>

### Notes:

H&N = head and neck cancer

\*\*some variation may occur in dates to accommodate speaker schedules

## 8. Participation and Engagement



- Students are expected to participate and engage with content as much as possible
- Students can also participate by interacting in the discussion posts with their peers and instructors

## 9. Evaluation

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

Assessment	Format	Weighting	Due Date
5 roughly bi-weekly quizzes	In class	5 x 10% = 50%	In schedule
Guest speaker reflective pieces	Take-home	4 x 2.5% = 10%	1 week after speaker
Final Project 1st Draft	Short form project outline	2%	January 27
Final Project 2nd Draft	Short form topic outline with one written paragraph	5%	February 19
Final Project Written Component	Long form report	18%	March 10
Final Project Oral Presentation	Small group presentation	15%	Apr 4-9



- All assignments are due at 11:55 PM 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 prior to the assignment deadline
- 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 grade appeals on assignments, tests, or discussion posts must be received within 3 weeks of the grade being posted.
- At least 15% of your course grade will be evaluated and returned 3 days prior to the drop deadline (statement in policies below).

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.

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

### Information about late or missed evaluations:

- Late assessments without accommodation will be subject to a late penalty 10 %/day
- Any missed work that is less than 10% of the students final grade will follow the same late penalty described above, until days after the due date, in which students will receive a mark of 0% for that work.
- An assessment cannot be submitted after it has been returned to the class.
- The weight of a missed test will be transferred equally to the weight of the remaining tests if a valid reason is provided to academic counseling. If the last test is missed with valid reasoning, a makeup will be scheduled with the professor as soon as possible afterwards.
- At least 3 tests, and the final assignment must be completed (with an average grade of at least 50%) to pass the course. If these elements are missed, the student receives an INC and student completes it the next time course is offered

**INC (Incomplete Standing):** If a student has been approved by the Academic Counselling 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 Counselling to carry a full course load for the term the incomplete course work is scheduled.

### 10. Communication:



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

### 11. Office Hours:



- Office hours will be held remotely using zoom
- Office hours will be posted in the first week of class
- Office hours will be drop in
- Office hours will be individual or group based on the students preference

### 12. Resources



- All resources will be posted in OWL
- No required textbook

### 13. 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).

### 14. 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 to ensure you have seen everything posted to help you succeed in this class.
3. Follow weekly checklists created on OWL 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.

### 15. Western Academic Policies and Statements

#### Absence from Course Commitments

A. Absence for medical illness:

Students must familiarize themselves with the [Accommodation for Illness Policy](#).

A student seeking academic accommodation for any **work worth less than 10%** must contact the instructor or follow the appropriate Department or course specific instructions provided on the course outline. Instructors will use good judgment and ensure fair treatment for all students when considering these requests. You are not required to disclose details about your situation to your instructor; documentation is not required in this situation, and you should not send any pictures to your instructor.

If you are unable to meet a course requirement for any **work worth 10% or greater** due to illness or other serious circumstances, you must provide valid medical or other supporting documentation to the Academic Counselling as soon as possible and contact your instructor immediately. It is the student's responsibility to make alternative arrangements with their instructor once the accommodation has been approved and the instructor has been informed. Please note that the format of a make-up test, exam, or assignment is at the discretion of the course coordinator.

A student requiring academic accommodation due to illness should use the Student Medical Certificate when visiting an off-campus medical facility or request a Record's Release Form (located in the Dean's Office) for visits to Student Health Services. The form can be found at: [http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/medicalform.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf)

#### B. Absence for non-medical reasons:

Student absences might also be approved for non-medical reasons such as religious holidays and compassionate situations. Please review the policy on [Accommodation for Religious Holidays](#). All non-medical requests must be processed by Academic Counselling. Not all absences will be approved; pay attention to the academic calendar and final exam period when booking any trips.

#### C. 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](#).

#### 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.

#### 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](#)

#### 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](#).

#### 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](#).

#### 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](https://www.turnitin.com).

### **15% Rule**

According to the [Evaluation of Academic Performance](#) policy, at least three days prior to the deadline for withdrawal from a 1000- or 2000-level course without academic penalty, students will receive assessment of work accounting for at least 15% of their final grade. Generally, students can expect some form of feedback on their performance in a course before the drop date. In rare instances, at the Dean's discretion, an exemption can be issued, which also must be noted in the course syllabus. Deans should review exemptions on a course-by-course basis each time an exempted course is offered.

## **16. 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, i.e., cell phones, tablets, cameras, 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., 74.4 becomes 74, and 74.5 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.

## **17. Support Services**

The following links provide information about support services at Western University.

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](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](mailto:support@uwo.ca).

[Academic Counselling \(Science and Basic Medical Sciences\)](#)

[Appeal Procedures](#)

[Registrarial Services](#)

[Student Development Services](#)

[Student Health Services](#)