

Department of Surgery
Surgery 9000 – Advanced Principles of Surgical Research
COURSE INFORMATION
September 2025

Course Coordinator: Dr. Brent Lanting

Course Time: Fall/Winter

Course Weight: 1.0 credit

Course Description:

The purpose of this course is to provide the basic skills and resources in evidence-based medicine, grant writing, research ethics, research methodology and design, and principles of clinical trials.

Learning Objectives:

By the end of this course students will be able to:

1. Select the appropriate study design based on your research question.
2. Develop an understanding of surgical research principles.
3. Critically appraise surgical scientific research.
4. Effectively communicate your research results through both written and oral communication.
5. Understand the importance of ethical guidelines when designing research studies.
6. Build your knowledge and understanding of surgical research principles.

Course Administration:

The course begins on September 22, 2025, and is scheduled to end on March, 9, 2026. Class material is all posted in OWL Brightspace. There will be synchronous sessions on zoom for this course. The zoom class session meeting notices are on the OWL site for the course.

This course is a mandatory requirement of the MSc in Surgery Program. You will be required to sign and acknowledge that you are aware that the synchronous class sessions begin at either 4 or 5 PM. Being late is not acceptable unless a valid reason is provided in advance.

Course Material/Resources:

All course material will be posted to OWL Brightspace: <https://westernu.brightspace.com/d2l/login>

Technical Requirements:

You will need a stable internet connection, laptop or computer, working microphone, and working webcam.

Course Evaluation:

For this course students will be graded as Pass/Fail. **In order to pass the course, you must attend at least 80% of the Zoom sessions and successfully pass the three assignments.** Attendance will be taken for all Zoom sessions. Participation at all sessions is expected and advanced notice must be given, supported by valid reason, if you cannot attend a Zoom session. Please note these sessions are not recorded.

Assignment 1 - Prepare a Grant Summary

Assignment 2 - Written Communications – Research Paper Development

Assignment 3 - Prepare and Present a 6-minute Research Lecture

Late Policy:

Please note unless supported by valid reason any assignment that is more than one week late will not be accepted and will receive a failing grade.

Course Material & Course Notes:

Instructors will select relevant material to be read for each of the topic areas. The material for each lesson **will be available in OWL Brightspace prior to the lecture**. If any additional material is provided it will be posted after the class on the OWL site for the course. All assignments will be posted in OWL.

Lecture Topics 2025-26:

Date	Lecture	Topic	Topic Description	Instructor
Sep. 22	1	Welcome & Introduction	Overview of MSc in Surgery Program	Dr. B. Lanting
Sep. 29	2	Evidence Based Medicine – A Primer	Research Methodology vs. Evidence Based Medicine	Dr. K. Vogt
		Western Libraries	Overview of Resources	Ms. M. Goodman
Oct. 6	3	Grant Writing	Identifying sources of funding, hypothesis development, reviewing grant summaries (Assignment 1 – Due Oct. 14)	Dr. A. Sener
Oct. 13		THANKSGIVING – NO CLASS		
Oct. 20	4	Big Data/ICES	Benefits of and How to Access Large Databases	Dr. Blayne Welk
Dec. 8	5	Quality Assurance	Exploring quality assurance research	Dr. T. Zwiap
Dec. 15	6	Principles of Qualitative & Education Research	Mixed methods research methodologies & Qualitative Research	Dr. S. Cristancho
Dec. 23		Winter Term is Finished – NO CLASS		
Dec. 30		HOLIDAY BREAK – NO CLASS		
Jan. 5	7	Written Communications	How to write all the parts of a research paper (Assignment 2 – Due Jan. 19)	Dr. R. Grewal
Jan. 12	8	Extra date for Make-up Class // Cancelled Classes		
Jan. 19	9	Health Economics	Health Economics in Surgical Research	Dr. J. Marsh
Jan. 26	10	Oral Communication	Tips & Techniques to Develop an Effective Presentation (Assignment 3 – Due in-class Feb. 2)	Dr. S. Smith
Feb. 2	11	Student 6 Minute Presentations (will be done by zoom)	Assignment 3 Zoom class presentations	Dr. S. Smith
Feb. 9	12	Research Knowledge Translation	Learn about knowledge transfer activities	Dr. J. MacDermid
Feb. 16		Family Day Holiday – NO CLASS		
Feb. 23	13	Clinical Trials	Overview of the types of clinical trials.	Dr. M. Brackstone
Mar. 2	14	Commercialization & Patents	Overview of the patent process and commercialization	Dr. A. Parekh
Mar. 9	15	Statistics Recap	Review of the statistical concepts explored in the program	Dr. L. Dubois

Course Instructors:

Instructor	Phone Extension	Email Address
Dr. Brent Lanting	33335	Brent.Lanting@lhsc.on.ca
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Ms. Victoria Almeida (Administrative Contact)	64357	Victoria.Almeida@sjhc.london.on.ca

Statement on Academic Offences

Scholastic Offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site: https://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_grad.pdf

Graduate Course Health and Wellness

As part of a successful graduate student experience at Western, we encourage students to make their health and wellness a priority. Western provides several on campus health-related services to help you achieve optimum health and engage in healthy living while pursuing your graduate degree. For example, to support physical activity, all students, as part of their registration, receive membership in Western's Campus Recreation Centre. Numerous cultural events are offered throughout the year. Please check out the Faculty of Music web page <https://music.uwo.ca/>, and Western University's own McIntosh Gallery <https://mcintoshgallery.ca/>. Information regarding health- and wellness-related services available to students may be found at <https://uwo.ca/health/>.

Students seeking help regarding mental health concerns are advised to speak to someone they feel comfortable confiding in, such as their faculty supervisor, their program director (graduate chair), or other relevant administrators in their unit. Campus mental health resources may be found at: <https://uwo.ca/health/psych/index.html>.

To help you learn more about mental health, Western has developed the Mental Health e-Learning Module on OWL: <https://owl.uwo.ca/portal/directtool/91d607ca-3f5d-4b17-9c83-f8ae54b2a529/>. This 15-minute module provides participants with a basic understanding of Mental Health issues and of available campus and community resources.

More self-help resources can be found here: <https://uwo.ca/health/psych/index.html>

Accessible Education Western (AEW):

Western is committed to achieving barrier-free accessibility for all its members, including graduate students. As part of this commitment, Western provides a variety of services devoted to promoting, advocating, and accommodating persons with disabilities in their respective graduate program.

Graduate students with disabilities (for example, chronic illnesses, mental health conditions, mobility impairments) are strongly encouraged to register with Accessible Education Western (AEW), a confidential service designed to support graduate and undergraduate students through their academic program. With the appropriate documentation, the student will work with both AEW and their graduate programs (normally their Graduate Chair and/or Course instructor) to ensure that appropriate academic accommodations to program requirements are arranged. These accommodations include individual counselling, alternative formatted literature, accessible campus transportation, learning strategy instruction, writing exams and assistive technology instruction. More information is on the Academic Support & Engagement website at: https://academicsupport.uwo.ca/accessible_education/index.html