

Microbiology and Immunology
Microlmm 3610 – Microbiology Laboratory

Course outline for Fall 2020



Although this academic year might be different, Western University is committed to a **thriving campus**. We encourage you to check out the [Digital Student Experience](#) website to manage your academics and well-being. Additionally, the following link provides available resources to support students on and off campus: <https://www.uwo.ca/health/>.

1. A Personal Note From Dr. Heit

COVID-19 has created an unprecedented challenge to providing university education. This is especially true of a course such as Microlmm 3610, which is heavily dependent on lab-generated data. Despite this, I have decided to operate this course entirely on-line for three reasons: **1)** we do not know if there will be additional university closures caused by new waves of SARS-CoV-2, **2)** some of you may have decided to not come to London for the fall term, and will be joining us remotely, and **3)** it was unclear if we'd be able to sufficiently protect you while working in-lab.

I realize that this loss of hands-on experience is not ideal, however, it should not impact the primary goals of this course – which is to train you to collect, analyze, interpret and communicate real-world scientific data. We have a vast library of data generated over the previous years of this course, allowing us to provide you with the same data-based experience as prior students.

I have also made efforts to ensure that this course is as interactive as possible through synchronous (live video feeds) sessions, while maintaining flexibility by ensuring all materials are also available in an asynchronous (recorded videos + on-line interactives) format. While I encourage you to join the live sessions, there is no penalty for engaging in the course entirely asynchronously. Note that you will need an internet connection and a laptop or computer to engage in synchronous sessions. You may also use your microphone and webcam during synchronous sessions, but this is not mandatory.

I understand that learning remotely creates additional stresses above those normal for university students, and that you may have additional responsibilities or stressors due to life changes brought about by COVID-19. As such, we have tried to make this course as flexible as possible, to ensure that you can manage the workload alongside your other courses, responsibilities, and while taking care of your mental health:

Availability: I will maintain an “open door policy” throughout the term, meaning you can email me at any time (bheit@uwo.ca) to arrange a virtual meeting to discuss course materials and issues. These meetings are private and recordings of them will not be released to the class.

Privacy: While I will appear on-camera during synchronous sessions, you are under no obligation to turn on your camera or microphone.

Due Dates: While there are due dates for all assignments, you will be granted an automatic 48-hour extension if you submit a self-reported absence before the assignment deadline. Should you need a longer extension, please email me immediately after submitting the self-reported absence form.

Accommodations: If you need accommodations beyond those offered above, please contact me and we will make alternative arrangements. All archived videos will contain automatically generated captions, to improve accessibility.

2. Technical Requirements:



Internet connection



Laptop or computer



Optional: Microphone



Optional: Webcam

3. Course Overview and Important Dates:



Delivery Mode	Dates	Time
On-line lectures – live streaming video, with option to view recorded lecture afterwards. Note: attendance of the live lecture is not mandatory.	Tuesdays	1:30 PM – 2:20 PM
Virtual Labs: Asynchronous portion (Virtual experiments)	Any time. Materials will be available on OWL a week prior to the lab.	
Virtual Labs: Synchronous portion (Small group discussions with TAs)	Tuesdays or Wednesdays	2:30 PM – 5:30 PM

*Details about design and delivery of the course are listed below in Section 4

Classes Start	Reading Week	Classes End	Study day(s)	Exam Period
September 9	November 2 - 8	December 9	December 10	December 11 - 22

* November 12, 2020: Last day to drop a first-term half course or a first-term full course without penalty

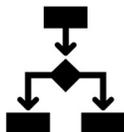
4. Contact Information



Course Coordinator	Contact Information
Dr. Bryan Heit	Email: bheit@uwo.ca Virtual Student Hours: As required, book by email.

You will be provided with your TA's name and contact information after the start of the course.

5. Course Description and Design



Laboratory techniques used in the broad discipline of microbiology, including bacteriology and virology. Laboratory exercises include the staining, biochemical characteristics and identification of live bacteria, plus genetic techniques used to study microorganisms. This course runs parallel to, and applies basic principles acquired in, Microbiology and Immunology 3100A.

Prerequisites: Biology 2581B; Microbiology and Immunology 2500A/B.

Pre- or Co-requisites: Biochemistry 3381A; Microbiology and Immunology 3100A

Mode	Dates	Time	Frequency
Virtual synchronous or asynchronous	T/W	3-4 hours	weekly
Virtual asynchronous	N/A	2 hours	weekly

- Asynchronous pre-work must be completed for the synchronous lab sessions
- Attendance at synchronous sessions is strongly encouraged, but is not required
- Missed work must be completed and submitted within 48 hours
- Recording of synchronous sessions will be provided within 24 hours
- Closed captioning will be provided for video recordings

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](#).

6. Learning Outcomes & Student Expectations

The primary purpose of this course is to familiarize students with basic scientific writing skills, and with the proper design, data collection, analysis, and data presentation of scientific experiments. Students will also become familiar with common laboratory methods used for microbiology research, clinical testing, and for industrial use.

- Students are expected to attend all lectures and labs, either synchronously or asynchronously.
- Students will need to complete some on-line assignments prior to some lectures and to actively participate during in-lecture activities and assignments.
- Prior to each lab, student must read the corresponding section of the lab manual and watch the videos associated with the lab.
- Over the course, students will develop a working knowledge of the microbiological techniques taught in lab, an ability to properly prepare a written scientific document, and learn the proper methods for data collection, analysis and presentation.

7. Course Content and Schedule



A full calendar with all lecture and lab topics, assignment due dates, and other scheduling information can be found as a link in the "Syllabus" tab on the MicroImm 3610 OWL site.

8. Online Participation and Engagement



- Students are expected to participate and engage with content as much as possible
- Students can participate during live sessions and/or post on the course forum after watching the recording
- Students can also participate by interacting in the forums 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
Lab Write-Ups	Short write-ups (1-2 pages)	30%	Multiple (see calendar)
Mid-Term Report	Partial Scientific Paper	15%	October 27 or 28
Final Report	Full Scientific Paper	30%	December 15 or 16
Peer Writing Assessment	Reviews of 2 peers introductions for final report using ComPair	15%	Your introduction: November 10 or 11. Reviews: November 24 or 25
"In Lecture" Assignments	On-line quizzes and short-answer questions	10%	Friday after each lecture.

- All assignments are due at 11:55 pm EST unless otherwise specified
- Written assignments will be submitted to Turnitin (statement in policies below)
- Students will have unlimited submissions to Turnitin
- 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



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 evaluations:

- Late assessments without illness self-reports will be subject to a late penalty 25% if less than 24 hours late, 50% if 24 to 48 hours late, and a grade of 0% if more than 48 hours late.
- Late assessments with illness self-reports should be submitted within 48 hours of submission of the illness self-report. If you require more time, contact Dr. Heit after submitting your self-report.
- There are no mid-term or final exams for this course.

10. Communication:

- Students should check the OWL site every 24 – 48 hours
- Emails will be monitored daily; students will receive a response in 24 – 48 hours
- Collaborate UE will be used for all synchronous session
- This course will use the OWL forum for discussions
- Students should post all course-related content on the discussion forum so that everyone can access answers to questions
- The discussion forums will be monitored daily by instructors or teaching assistants



11. Student (Office) Hours:



- Student hours will be held remotely using Zoom, with these meetings booked via email.

12. Resources



- All lecture slides, videos and other lecture materials will be posted in OWL.
- All lab videos, lab manual chapters, data sets and writeup instructions will be posted in OWL.
- All materials are provided free-of-cost. There is no textbook to purchase for this course.

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:



- Students are expected to follow online etiquette expectations provided on OWL
- All course materials created by the instructor(s) are copyrighted and cannot be sold/shared
- 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 the first lecture
- All recorded sessions will remain within the course site or unlisted if streamed

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 time at the start of each week to get organized and manage your time.
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. Treat this course as you would a face-to-face course. 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

[Policy on Academic Consideration for Student Absences](#)

In the interest of the health and safety of students and health care providers, you are no longer required to seek a medical note for absences this term. If you are unable to meet a course requirement due to illness you should use the [Illness Reporting Tool](#). This tool takes the place of the need to submit a medical note and the Self-Reported Absence System formally used by undergraduate students.

You are required to self-report every day that you are ill and unable to complete course commitments. Details about when you should submit missed work, the format of the missed work can be found in the Section 7. Evaluation above. Students should communicate promptly with their instructor and use this tool with integrity.

Accommodation for Religious Holidays

The policy on Accommodation for Religious Holidays can be viewed [here](#).

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](#).

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).

16. BMSUE Academic Policies and Statements

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.

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

[Appeal Procedures](#)

[Registrarial Services](#)

[Student Development Services](#)

[Student Health Services](#)