Course Coordinator
Dr. Liliana Clemenza liliana.clemenza@utoronto.ca
Office Hours: Monday, 2pm-3pm Online via Teams (drop-in)

Lecturers	Email
L. Clemenza	liliana.clemenza@utoronto.ca
P. Barbulescu	philip.barbulescu@mail.utoronto.ca
T. Mallevaey	thierry.mallevaey@utoronto.ca

Delivery Mode:
In-person lectures will take place on Thursdays from 9 am to 11 am. The lectures will be recorded and uploaded to Quercus one week before the date of each test and final exam.
Tutorials:
On Mondays from 3-4pm, there will be in-person tutorials for planning and discussing group video presentations. Each Monday, groups of seven self-assigned students will meet as per the schedule posted on Quercus to discuss a draft of their project and receive feedback from the instructor/TAs. **Each group will attend only one tutorial, but tutorial attendance is mandatory for all group members. If a group member does not attend their scheduled tutorial, they will be removed from the group and must submit an individual video assignment on the same topic assigned to their original group.** Please see the Course Assessment section 2 below for more important information about tutorials.

Term Tests: Term tests will be delivered **online** during regular class time.

Final Exam: **In person**, date TBA.

Arts & Science Calendar Course Overview (20L/7T)

IMM340H 'Fundamental Immunology' introduces the basic principles and key players of the immune system: differences and interplay between innate and adaptive immunity, how immune cells develop and function, how immune cells recognize threats and danger and mount an appropriate and measured response.

Prerequisite: BIO230H1
Required Textbook: Janeway's Immunobiology, 10th Edition by Murphy, Weaver, Berg; Norton.

Evaluation Scheme & Course Assessments

Assessment	% of Grade	Due Date
Readings & InQuizitive	10%	Ongoing
Group Video Presentations	10%	Two weeks after tutorial meeting
Test 1	20%	September 25, 9:30 am-11am ET
Test 2	20%	October 23, 9:30 am-11am ET
Final Exam (in person)	40%	TBA

1. Readings and InQuizitive (10%)

Janeway's textbook and companion site, InQuizitive, are mandatory resources for this course and can be purchased for CAD 72.25. You will need a student Set ID and an access code that will be posted on Quercus. Purchase instructions and student help notes are available here.
Readings related to the weekly lecture will be assigned every Wednesday evening, along with their associated InQuizitive quiz. In InQuizitive, students must answer a minimum number of questions in each activity before receiving a grade and reaching a 100% Target Score. Each quiz must be completed by 11:59pm on Thursday of the following week (one-week window).
Please note that the readings might contain content not covered in the lecture that, although not testable on tests or the final exam, can be tested on InQuizitive.
An activity called "How to use InQuizitive" will be available during the first week of class.

There are no make-ups for missed InQuizitive homework, given the nature of the assessment and since there is a one-week period for completion.

2. Tutorial Group Presentations: (10%)

Tutorial Attendance & Collaboration Sessions:
Tutorials are designed to facilitate group discussions, planning, and project development. The use of generative AI during tutorial sessions is allowed to enhance your initial brainstorming and structuring process. Here is how the sessions will unfold:
Designated Space: Each Monday, student groups will attend the tutorial as scheduled (see List of Topics & Groups in the Tutorial Presentations Quercus Module). Each group will be assigned a spot in the tutorial room to discuss their respective projects without disturbances. *Each group will attend only their scheduled tutorial.*
Objective: These sessions are dedicated to helping group members convene, brainstorm, and develop their presentations. **The focus will be on using generative AI to create an initial outline for your presentation**, which will serve as a starting point for further discussion, refinement, and development.
However, the final submitted work, including newly created images and script, must be original (i.e. not AI-generated) and reflect the group's collective input.

AI Tool Integration:
- **Step 1:** At the beginning of the session, each group will upload their assigned paper to an AI tool of your choice.
- **Step 2:** The AI tool will generate a suggested outline for a 10-minute presentation. This outline will include key points and potential sub-sections.
- **Step 3:** Groups will then critically evaluate the AI-generated outline. Discuss what works, what needs to be adjusted, and how to best align the outline with your project goals.
- **Step 4:** Modify the outline based on your discussion, ensuring the final structure reflects the group's understanding and approach to the topic.

Suggested Initial Prompt:

You could provide a basic prompt like the following:

"Generate an outline for a 10-minute video presentation based on the key findings and main arguments of [Title of the Assigned Paper]. The outline should include an introduction, 3-5 main sections covering significant points or experiments, and a conclusion that ties the findings back to the broader field of immunology."

Groups can then adjust this prompt by adding specifics from their assigned paper or case study, such as emphasizing specific aspects, focusing on implications for EDIIA themes, or addressing controversial points within the research.

Instructor/TA's Role: During these sessions, the instructor/TA will move around the room, visiting each group. This time is a chance for groups to ask questions, seek feedback on the AI-generated outline, and ensure they are on the right track. By the end of the tutorial, each group should present a draft plan detailing their presentation's direction, content, and design. **This plan, including the AI-generated outline and your modifications, should be uploaded to the Quercus Group Page as a work in progress.**
Opting Out of AI Use: Groups that prefer not to use the AI tool can opt-out. In this case, the group should start by manually brainstorming and creating an outline. These groups must document their process and how they arrived at their final outline without AI assistance.

Using AI for Contrasting Perspectives Throughout the Project

Video Production Phase:

- Creative Decisions: If your group has different opinions on creative elements, such as which information to include, how many speakers to feature, or the overall style of the presentation, use the AI tool to explore various options. For example, you could ask the AI tool to generate alternative styles - one formal, one informal - for presenting the key findings of your project paper."

Final Decision-Making:

- After reviewing the AI-generated options, the group should discuss and decide on the final approach.

If AI tools are used, the group must:
Document AI Use:

1. Outline: Briefly explain how the AI tool was used, what aspects were retained or modified, and how the final outline was developed.
2. Use of AI throughout the project to solve within-group disagreements must also be documented.

When you submit your video, the AI-use document should be uploaded as an attachment to the comment space. The group's effectiveness in using and modifying the AI output will also be assessed (See rubric).

Groups opting out of AI use must also document their brainstorming process and outline development, ensuring that the same level of rigor is applied. The points allocated to AI use, will be distributed to other rubric criteria.

Microsoft Copilot:
The recommended AI tool is the protected version of Microsoft Copilot available to faculty, staff, and UofT students. "Copilot is an enterprise version of an AI-powered chatbot and search engine that better protects users' privacy and security (when users are signed into their U of T account).

Copilot, like other generative AI tools, may provide information that is not correct ("hallucinations"), and it is up to each individual user to determine if the results are acceptable. For information and instructions on accessing the enterprise edition, please read and adhere to the Microsoft Copilot guidelines for use. "

Please note that any uses of generative AI beyond those listed above are not permitted and will be considered unauthorized aid, which is an academic offence. Submissions will be assessed at the discretion of the course coordinator, and students will be asked to show evidence of their work if a case of Academic Integrity and the inappropriate use of Generative AI tools is suspected.

Group Formation:

- Assigning: Once the instructor populates Quercus with groups and topics, you can select a group number and its associated topic.
- Size: Groups must consist of up to 7 students (might be increased to 8, depending on final enrolment).
- Diversity: Forming groups with a mix of skills is beneficial for a richer collaborative experience.
- Roles: Assign specific roles. Remember, each member can assume multiple roles, and roles can overlap among members:
    - Researcher: Everyone participates in this role
    - Writer: Drafts the presentation's primary content or a complete script, if preferred.
    - Presenter: Delivers the presentation. If possible/desired, all members should be involved as presenters.
    - Editor: Refines clarity, coherence, and grammar.
    - Coordinator: Manages meetings and acts as the group's representative.
    - Visual Designer: Designs slides or visual aids.

Guidance for Group Choice:
This assignment offers students flexibility regarding their learning styles, interests, and scheduling availability. When selecting a group, consider:

1. Interest in the topic.
2. Personal schedule.
3. Interest in acquiring digital skills.
4. Commitment to EDIIA themes.

Format: Submit a 10-minute video or voice-over PowerPoint presentation.

Submission: It is due by 11:59 p.m. on Sunday, two weeks after the group's tutorial week. (For example, groups meeting on Monday, Sept. 15, have a submission deadline on Sunday, Sept. 28).

The list of papers will be posted on Quercus under the Tutorial Presentations Module.

Presentation Crafting Tips:

- Slide Design: Prioritize visuals over text. Use graphs, images, or charts.
- Script: Either script your narration or create bullet points to maintain focus.

Software Recommendations:

- PowerPoint: Use the "Record Slide Show" feature for voice narrations.

- Online Tools: Platforms like Quercus, Zoom, and MyMedia offer screen and voice recording.
- Advanced Editing: Adobe Premiere Pro, iMovie, or Filmora

As indicated in the "Missed Assessment Policy" section below, there are no extensions nor accommodations for the Group Assignment due to the nature of the assessment (i.e. it is a group assignment).

Note: The complete rubric for this assignment will be posted on Quercus. A summary of evaluation criteria is provided below.

Criteria	Weight (Points)	Description
Presentation Structure/Audience	20	Evaluates the coherence, engagement, and appropriateness of the presentation for the intended audience.
Content/Research	25	Assesses the accuracy, relevance, and depth of the content presented.
Script/Narrative	20	Looks at the clarity, organization, and citation of references in the script.
Use of Digital Media/Creativity and Editing	20	Measures the originality, quality, and integration of digital media, as well as the overall flow and engagement of the video.
AI and documentation of AI Use	15	Evaluates how effectively AI tools were used, including the critical evaluation and modification of AI-generated content.

3. Tests and Final Assessment

Term Tests 1 and 2 will take place online via Quercus Quizzes. **The Final Exam will be in person.** Test dates and coverage/format are highlighted below:

Test 1 (20%): Test 1 will be online on **September 25, 2025, from 9:30 am to 11 am**. It will cover Lectures 1-3 of the course, with 10 questions per lecture in a multiple-choice format.

Test 2 (20%): Term Test 2 will be online on **October 23, 2025, from 9:30 to 11 a.m**. It will cover Lectures 4-6 of the course, with 10 questions per lecture in a multiple-choice format.

Final Exam (40%): The Faculty of Arts & Science will schedule the date of the final assessment. The final exam will cover lectures 7-10 of the course, with 10 questions per lecture in a multiple-choice format. The exam duration is two hours.

Please refer to the "Missed Assessment Policy" section below for information on how to request accommodation for a missed test or final assessment and what accommodations may be possible.

Missed Assessment Policy

- This course follows the University of Toronto's Policies on missed tests and assignments and requires students to complete an Absence Declaration on ACORN for illness-related circumstances.
- Other reasons for missing course assessments will require prior approval by the course coordinator. If approval is not granted in advance for non-medical reasons, then 0% will be recorded for the missed assessment.
- Note: If you submit an assessment, it will be assumed that you deemed yourself fit enough to do so and your grade will stand as calculated. No accommodations will be made based on claims of medical, physical or emotional distress after the fact.
- InQuizitive Homework – There are no make-ups for missed InQuizitive homework, given the nature of the assessment and since there is a one-week period to complete it.
- Missed Tests– Missed tests/final assessments will be accommodated at the course coordinator's discretion. Make-up tests will be composed of a mix of short-answer and multiple-choice questions.
- Group Assignment—Due to the nature of this assessment, there are no accommodations for individuals or groups for the group assignment under any circumstances. Late videos will not be accepted, and there are no accommodations available for individuals' missed contributions to their group's video.

Course Schedule

Lecture Date	Lecture	Lecturer
Sept 4	Overview of the Immune System	L. Clemenza
Sept 11	Innate immunity	L. Clemenza
Sept 18	The inflammatory response and the Complement System	L. Clemenza
Sept 25	Test 1	
Oct 2	Antibody structure and diversity	P. Barbulescu
Oct 9	B cell development	P. Barbulescu
Oct 16	The MHC complex & antigen presentation	T. Mallevaey
Oct 23	Test 2	
Oct 30	No Class. Reading week	
Nov 6	T cell development	T. Mallevaey
Nov 13	T cell activation, differentiation and functions	L. Clemenza
Nov 20	B cell differentiation and functions of Ig classes	L. Clemenza

Nov 27	Lymphocyte Signaling	L. Clemenza

Tutorial Date	Groups	Submission Date (by 11:59pm)
Sept 15	Groups Lectures 1 & 2	September 28
Sept 22	Groups Lectures 3	October 5
Sept 29	No Tutorial	
Oct 6	Groups L. 4 Antibody structure and diversity	October 19
Oct 13	No Tutorial - Thanksgiving	
Oct 20	Groups L. 5 B cell development and L. 6 The MHC complex	November 9
Oct 27	No tutorial - Reading week	
Nov 4	No Tutorial	
Nov 10	Groups L. 7 T cell development	November 23
Nov 17	Groups L. 8 T cell activation, differentiation and functions	November 30
Nov 24	No tutorial	
Dec 1	No Tutorial	

Accessibility Needs:
The University of Toronto is committed to accessibility. If you require accommodations for a disability, or have any accessibility concerns about the course, the classroom or course materials, please contact Accessibility Services as soon as possible: http://studentlife.utoronto.ca/accessibility.