

Course Instructor

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Teaching Assistant

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Office Hours

Tuesdays 11-1pm

Lectures and Tutorials

Lectures: Wednesdays 1:00-3:00pm

Class attendance is critical in IMM221 for achieving the course learning outcomes – under no circumstances are students permitted to enroll in this course if they have course conflicts

Tutorials: Tuesdays 2:00-3:00pm

The tutorials will consist of feedback sessions and group presentations. Details can be found under “Tutorial Schedule.”

*Note: Lectures and tutorials will be delivered in-person

Course Description

This course will examine the milestones in the field of immunology from ancient to current times, with specific emphasis on 1880 to 1980. It will observe how the concept of immunity has changed over time and examine the major events and discoveries that shaped how immunology is viewed today. The pioneering work of Edward Jenner, Louis Pasteur, Robert Koch, Paul Ehrlich and Brigitte Askonas will be discussed and analyzed in light of its lasting historical, social and scientific impact. Assignments are staggered for students to build upon instructor’s feedback.

Course Learning Outcomes

By the end of the course, the students will have a greater understanding of immunology through historical and scientific perspectives by learning about the key immunological theories developed between 1880 to 1980 and how they have evolved to what they are today.

Students will have also:

- Developed knowledge translational skills through written assignments, presentations and instructor’s individualized feedback
- Learned basic immunological concepts, both old and new
- Developed a deeper appreciation of historical events related to immunology
- Sharpened their ability to critically analyze scientific theories
- Gained insights on the importance of realizing scientific theories as an ever-changing concept

Recommended Preparations:

BIO120H1, BIO130H1

Evaluation Scheme & Course Assessments

Assessment	% of Grade	Date
Mid-term	25%	February 11
Infographic	15%	March 4
Feedback session – prep/participation	5%	Refer to tutorial schedule
Group project		
Layperson summary	10%	March 30
Presentation	15%	
Final exam	30%	Final assessment period

Mid-term (25%)

The in-person mid-term test will be held during in-class time **(1pm-3pm) on February 11**. Having a conflict with another class is **NOT a valid reason** to miss the midterm. The length of the mid-term will be announced closer to the date.

The mid-term will cover lectures 1-5 and may consist of multiple choice, select all correct answers, true and false, and short answer questions.

Infographic (15%)

The goal is to design an infographic based on a pioneer of your choice. Students are encouraged to use different computer software to aid them in designing the infographic. More information and a rubric will be posted on Quercus.

Due: March 4, 11:59pm on Quercus

Feedback sessions – prep / participation (5%)

The goal of feedback sessions is to provide an opportunity for you to engage with the class and to receive feedback on your assignments. You will be assessed on the following: tutorial attendance, engagement and preparedness. More details to follow in the lecture.

Group project: Layperson summary (10%) & presentation (15%)

Topics for the group project will be given in Lecture 5. The group will consist of 4 students. Each group will be responsible for a layperson summary (500 words) of their chosen topic and a 15-minute presentation. The summary will be evaluated as a group while the presentation will have both individual and group components.

The group must sign up for at least one 20-minute timeslot between Tutorial #3-5 to receive feedback from the instructor and/or the TA. All group members must be present. Both the layperson summary and the presentation slides must be submitted on Quercus by March 30, 11:59pm.

Due: March 30, 11:59pm (Note that this is a Monday)

Final exam (30%)

The in-person final exam will be scheduled by the Faculty of Arts & Science during the final assessment period. The duration of the final exam will be 2 hours and may consist of multiple choice, select all correct answers, true and false, and short answer questions.

The final exam will cover lectures 6-11.

Tentative Class Schedule

Some adjustments may be made as the course progresses.

Timeline	Class Topic
Jan 7	Lecture 1 Introduction and basic concepts in immunology
Jan 14	Lecture 2 The concept of immunity before the 19 th Century
Jan 21	Lecture 3 Smallpox: the virus that started it all
Jan 28	Lecture 4 Two schools of thought: cellular vs humoral immunity
Feb 4	Lecture 5 Antibody formation, diversity and specificity Group project topics assigned
Feb 11	Midterm
Feb 18	Reading week
Feb 25	Lecture 6 Autoimmunity
Mar 4	Lecture 7 Thymus: the game changer
	Due: Infographic
Mar 11	Lecture 8 Transplantation and blood groups
Mar 18	Lecture 9 Women of immunology
Mar 25	Lecture 10 Group presentations
Mar 30	Due: All components of group project/presentation
Apr 1	Lecture 11 Undergraduate professional development

Tutorial schedule

Some adjustments may be made as the course progresses.

Timeline	Class Topic
Feb 3	Tutorial 3 (optional) Infographic feedback session and midterm questions
Feb 10	Tutorial 4 (optional) Infographic feedback session and midterm questions
Feb 17	Reading week
Feb 24	Tutorial 5 (mandatory) Sign-ups for layperson summary & presentation feedback
Mar 3	Tutorial 6 (mandatory) Sign-ups for layperson summary & presentation feedback
Mar 10	Tutorial 7 (mandatory) Sign-ups for layperson summary & presentation feedback
Mar 17	Tutorial 8 (mandatory) Sign-ups for layperson summary & presentation feedback
Mar 24	Tutorial 9 (mandatory) Group presentations

Accommodations for Missed or Late Assessment Policy

Advance conflict: If you know in advance that you cannot write the midterm at the scheduled time because it conflicts with some other valid activity, please notify the course instructor as soon as possible so that we can try and make arrangements for you to write the midterm. If an arrangement cannot be made, it will count as a missed midterm.

This course follows the University of Toronto's Policies on missed tests and assignments and requires students to provide one of the following documentations:

- [Absence Declaration on ACORN](#)
- U of T Verification of Illness Form (VOI)
- College Registrar's Letter
- Letter of Academic Accommodation from Accessibility Services

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.

Missed Midterm – There will be one single make-up midterm only for those who have **missed with a valid reason**. The make-up midterm may differ in format than the original midterm. Missing the make-up midterm will result in transfer of all midterm exam grades onto the final exam weighting (ex. final exam worth 55% of your grade).

Missed Feedback sessions – There are no make-ups for missed assignment or feedback sessions (tutorials). If accommodation is requested for a missed assignment or feedback sessions as above and is granted by the instructors, the weighting for that assignment/tutorial will be shifted to your tests; otherwise, 0% will be recorded for your missed lab assignment/tutorial.

Late submissions of ALL assignments are subject to a late penalty of 10% per day unless an extension has been granted by the course instructor, with no late assignments allowed after **7 calendar days**. For example, if your essay receives a grade of 85, and it was two days late, with a 10% late penalty per day, your final grade is 65.

**Disclaimer: The above schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances.

Submission of Assignments

All written assignments should be submitted **electronically** via Quercus by the due date. Please note that your electronic submission will undergo a review of textual similarity. **“Normally, students will be required to submit their course essays to the University’s plagiarism detection tool for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the tool’s reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University’s use of this tool are described on the Centre for Teaching Support & Innovation web site (<https://uoft.me/pdt-faq>).”**

Marking Concerns with Assignments

Any requests to have an assignment re-graded must be made in writing directly to Dr. Sheikh-Mohamed **within one week** of the date the marks were posted on Quercus. To be considered, your message **must** clearly identify your concern, contain a detailed justification for your concern and make specific references to the relevant course material. Keep in mind that it is possible for your assignment grade to go down if the re-graded mark is lower than your original assignment grade.

Statement on Academic Integrity

All students, faculty and staff are expected to follow the University's guidelines and policies on academic integrity. For students, this means following the standards of academic honesty when writing assignments, collaborating with fellow students, and writing tests and exams. Ensure that the work you submit for grading represents your own honest efforts. Plagiarism—representing someone else's work as your own or submitting work that you have previously submitted for marks in another class or program—is a serious offence that can result in sanctions. Speak to your course instructor for advice on anything that you find unclear. To learn more about how to cite and use source material appropriately and for other writing support, see the U of T writing support website at <http://www.writing.utoronto.ca>. Consult the Code of Behavior on Academic Matters for a complete outline of the University's policy and expectations. For more information, please see <http://www.artsci.utoronto.ca/osai> and <http://academicintegrity.utoronto.ca>.

The University of Toronto treats cases of academic misconduct very seriously. Academic integrity is a fundamental value of learning and scholarship at the UofT. Participating honestly, respectfully, responsibly, and fairly in this academic community ensures that your UofT degree is valued and respected as a true signifier of your individual academic achievement.

The University of Toronto's Code of Behaviour on Academic Matters outlines the behaviours that constitute academic misconduct, the processes for addressing academic offences, and the penalties that may be imposed. You are expected to be familiar with the contents of this document. Potential offences include, but are not limited to:

In papers and assignments:

- Using someone else's ideas or words without appropriate acknowledgement.
- Submitting your own work in more than one course.
- Making up sources or facts.
- Obtaining or providing unauthorized assistance on any assignment (this includes working in groups on assignments that are supposed to be individual work).

Any instance of suspected academic dishonesty will be reported to the Office of Student Academic Integrity. For further information on you may wish to visit <http://www.artsci.utoronto.ca/osai/resources> and <http://www.writing.utoronto.ca/advice>.

Intellectual Property Statement

Students are reminded that IMM221H1 course materials are the intellectual property of Dr. Sheikh-Mohamed. Absolutely no recording is permitted. Sharing, posting, selling or using this material outside of this course is **not** permitted under any circumstances and is considered an infringement of intellectual property rights. According to intellectual property laws, not asking

permission constitutes stealing. Students are further reminded that the Academic Handbook states: “It is absolutely forbidden for a student to publish an instructor’s notes to a website or sell them” (section 4.5)” Any student found violating this rule will be brought into the Office of Student Academic Integrity.

There may be guest lecturers in this course, and if the topics they cover include medical record/confidential/un-published information, recordings will **not** be permitted, and Chatham House Rules (free to use the information received, but neither the identity nor the affiliation of the speaker(s) may be revealed) will be in effect.

Accessibility Needs & Accommodations

Students with diverse learning styles and needs are welcome in this course. If you have an acute or ongoing disability issue or accommodation need, please feel free to approach Dr. Sheikh-Mohamed, as well as register with Accessibility Services (AS) at the beginning of the academic year by calling (416) 978 8060 or visiting <http://accessibility.utoronto.ca>.

Required Readings

There is no textbook for this course. All required readings/content will be posted on the Quercus course website (information below), and should be read **prior** to attending the lectures as we will critically analyze these readings in lecture.

Quercus Course Website

We will be using the new learning management software implemented at the University of Toronto, called Quercus, to post information about the course. To access the course website, go to the U of T Quercus log-in page at <https://q.utoronto.ca>. Once you have logged in to Quercus using your UTORid and password, you should see the link or “card” for **IMM221, Origins of Immunology**. All questions about the course can be posted on the Discussions area of our Quercus course site. It is your responsibility to check this Quercus site, including the announcements section, regularly, and to monitor your @mail.utoronto.ca email inbox for messages about the course. Here, you will find announcements about assessments, help (via the Quercus Discussions), your grades, etc. Course assessments will also need to be submitted through Quercus and outline lecture slides will be posted there in .pdf format. Alternative file formats will not be available. **Note that complete slides/lecture material used in class will not be posted or distributed in any form under any circumstance.**

Questions & Additional Course Help

All course content or course administration questions must be posted to the online Discussion Board on Quercus or brought to office hours. Any messages of a more personal nature (e.g., medical documentation for a missed class/assignment) should be emailed to the instructor. You can expect a response within 48 hours (Monday-Friday) to a discussion board posting or to an email. To email your instructor, click on the inbox section of your Quercus page, click on the feather (i.e. quill) icon on the top right of the page to compose your message, select “Teachers” within IMM221 as the recipients and use an informative subject line.

Health & Wellness

The university experience can be a challenging one, there is no need to go about it alone. If you or anyone you know could use someone to talk to (or text with), here are some resources in addition to your instructors, program coordinators, and TAs:

- Your **college registrar** and **office of residence of student life (ORSL)**
- **MySSP** [24/7, talk in 146 languages & text in 35 languages]: available on Apple App Store and Google Play Store.
- **Good 2 Talk Student Helpline** [24/7]: 1-866-925-5454
- **Gerstein Centre** [24/7]: 416-929-5200

Academic Support

- Writing Centre for all writing-related help (<https://writing.utoronto.ca/writing-centres/arts-and-science/>)
- Study Hubs for weekly goal-oriented study sessions (<https://studentlife.utoronto.ca/program/study-hubs/>)
- Recognized Study Groups to connect with fellow students in the same class (<https://sidneysmithcommons.artsci.utoronto.ca/recognized-study-groups/>)
- Learning Strategist for one-on-one help to improve learning strategies (<https://studentlife.utoronto.ca/service/learning-strategist-connections/>)