

Course & Instructor Information

Course Coordinators

Dr. Dana Philpott, PhD (dana.philpott@utoronto.ca)

Dr. Matthew Buechler, PhD (matthew.buechler@utoronto.ca)

Office Hours: *Please email for appointment*

Course Overview

Using a combination of lectures and seminars, this course will give students an in-depth knowledge of recent key advances in various Immunological topics.

Course Prerequisites:

The prerequisite for this course is a basic background in Immunology obtained from at least one recent full-year undergraduate course. The course will be taught at a fairly advanced level. Students who are missing background knowledge in some areas should fill the gaps from textbook, discussions with colleagues, or advice from faculty members. Don't hesitate to reach out.

Please note that students who are *not* in the graduate program in Immunology need to obtain prior permission from the course coordinators to register for this course.

Course organization:

The course will follow a lecture/seminar format. Each session will include an overview of the topic followed by an in-depth analysis of recent key advances. At least one student will be assigned to each session and will present a paper in class. Depending on the course enrollment, it is anticipated that each student will give one presentation.

The faculty member selects 2-3 papers, including a review, for the class to read and an additional paper to be presented in class by a student.

The student assigned to each session will be responsible for contacting the professor two weeks in advance of the lecture to request citations for the papers for the class to read, and to remind the speaker of the date, time, and link of the lecture.

The student will arrange to send the papers to the course coordinator at least one week before class, who will post it on Quercus for the rest of the class.

After reading the paper for presentation, the student should feel free to discuss it with the professor in advance of the session (through a scheduled phone call or online meeting). The student will succinctly summarize the background, methods and key findings of the paper and point out any pitfalls or problems. Plan for the presentation to take no more than **twenty minutes**, to have enough time for a discussion with the class.

Course location and time:

IMM1000H (Recent Advances in Immunology) Syllabus

The lecture will take place on the dates depicted in the *Lecture Schedule* below.

Lectures and seminars will be held in-person*. (*the format of the lecture *may be subject to changes*)

TIME: start at 1:30 PM until 4:30 PM

Recommended textbook:

Primer to The Immune Response, 2nd Edition. Tak W. Mak, Mary Saunders, and Bradley Jett. 2014 (Academic Press).

Evaluation Scheme & Course Assessments

Assessment	% of Grade	Due Date
Midterm Exam	40%	07 December 2024 (5:00pm)
Presentation	20%	Throughout term
Final Exam	40%	12 April 2025 (5:00pm)

**All grading will be done by the professor/s who submitted the question or assigned the paper for presentation. The course coordinator will assemble the marks and administer the final mark.*

The grade for the course will be based on one mid-term “take-home” exam and one final “take-home” exam. Three faculty members will provide questions for the midterm and the final exam. Students have a maximum of two pages to answer the questions of each faculty member. The exams will be marked by the faculty member that provided each question. Details on the format will be posted on Quercus ahead of the exams.

MID-TERM EXAM (40%): Questions will be distributed on **02 December 2024 (Monday) at 9AM** through Quercus. Students are to upload their responses to Quercus on **07 December 2024 (Saturday) by 5PM**.

FINAL EXAM (40%): Questions will be distributed on **07 April 2025 (Monday) at 9AM** through Quercus, and will be due on **12 April 2025 (Saturday) by 5PM** via a Quercus submission.

Lecture schedule (Speaker/class times may be subject to change)

23 SEPT 2024		INTRODUCTION	Philpott / Buechler
23 SEPT 2024		Stromal Cells and Immunity	Buechler
30 SEPT 2024		T cell development	Zúñiga-Pflücker
07 OCT 2024		B cell development	Paige
14 OCT 2024		THANKSGIVING DAY	
21 OCT 2024		Apoptosis and immunity	Berger
28 OCT 2024		Myeloid cell development and diversity	Mortha
04 NOV 2024		Innate Immunity	Philpott
11 NOV 2024		T cell tolerance and autoimmunity	Dunn
18 NOV 2024		B cell activation	Treanor
25 NOV 2024		T cell activation	Rottapel
02 DEC 2024		Mid Term Exam available on Quercus at 9AM	
07 DEC 2024		Mid Term Exam due via Quercus by 5PM	
		WINTER HOLIDAYS	
06 JAN 2025		Antibody diversity	Martin
13 JAN 2025		Evolution of the adaptive immune system	Ehrhardt
21 JAN 2025 (Tues) MSB 7231		NKT cells and MAIT cells	Mallevaey
27 JAN 2025		GALT and immunity	Mortha
03 FEB 2025		NK cells and ILCs	Crome
10 FEB 2025		Gene–Environment interactions in Autoimmune Disease	Danska
17 FEB 2025		FAMILY DAY (University Closed)	
24 FEB 2025		Germinal Center	Gommerman
03 MAR 2025		Genes and Immunology	Mak
10 MAR 2025		Allergy and hypersensitivity	Eiwegger
17 MAR 2025		Autoimmunity	Wither
24 MAR 2025		Neuroimmunology	Rojas
31 MAR 2025		HIV	Ostrowski
07 APR 2025		Final Exam available on Quercus at 9AM	
12 APR 2025		Final Exam due via Quercus by 5PM	

E-mail contacts:

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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 Behaviour 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>.

Note: Upon submission on Quercus, student term papers will be automatically submitted to Turnitin.com for review of textual similarity and detection of possible plagiarism. In doing so, students will allow their assignments to be included as source documents in the Turnitin.com reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of the Turnitin.com service are described on the Turnitin.com website.

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: disability.services@utoronto.ca or <http://studentlife.utoronto.ca/accessibility>.

Drop Date

The final date to drop full-year courses without academic penalty is 28 February 2025 (Friday).