

# IMM1450Y – MAJOR RESEARCH PROJECT IN IMMUNOLOGY I

## 2019 - 2020 Academic Year

<http://www.immunology.utoronto.ca/courses/graduate/1450>

### COURSE CONTACTS:

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### COURSE DESCRIPTION:

IMM1450Y is one of four courses, along with IMM1550Y, IMM1650Y, and IMM1651H which are an essential requirement for successful completion of the Master's in Applied Immunology graduate program. This course is worth 1.0 total credits.

IMM1450Y is a course in which the student takes part in an original research project in the laboratory of a faculty member associated with the Immunology Department. The course is designed to provide an opportunity for the student to familiarize themselves with the laboratory through active participation in their independent research. The research projects being undertaken in this course set the ground work for the major research project in IMM1550Y and IMM1650Y.

#### Key dates and deadlines:

A hard copy of your final report should be delivered to the program coordinator no later than **Friday April 3rd, 2020** at 10:00 am. Reports received after this deadline will be penalized - 20% will be deducted per day.

### COURSE MARK BREAKDOWN:

• Lab work (graded by supervisor)	- 60%
• Final Report	- 15%
• Presentation of Work at Seminar Series	- 15%
• Participation	- 10%
• Digital Visual Abstract of Findings - not graded, but mandatory	
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	100%

Any disputes or issues with your mark **must** be brought to the attention of the Course Coordinator or Program Coordinator **no later than 2 weeks** after receiving the mark. After this time, your mark shall be considered final.

### TIME COMMITMENT:

The student is expected to devote a minimum of 20-25 hours per week to the course from the week the fall term lectures begin to the last week of the spring term in which lectures are given. This time is to be spent in the laboratory carrying out experiments, data evaluation, and literature reading.

### WRITTEN REPORT:

The main objective of this report is to give students an opportunity to learn how to write a manuscript. The students are encouraged to seek help from their supervisors to write (and re-write) the report before submission to the course coordinator. The focus is on the learning process, not necessarily on how much result that you have generated. Thus, it is recommended that the students start drafting the reports a month ahead of the deadline. Additional results acquired after finishing the report may be presented in the oral presentations.

Failure to adhere to these guidelines will result in deductions.

**Format:** Typed, 12 point font, double-spaced; should not exceed 8 pages (excluding references, tables and figures). References shall be in the format of the *Journal of Immunology*.

**Abstract:** Not more than 200 words. A summary of your objective and key accomplishment

**Introduction:** Background of your project and the objective(s). Any hypothesis?

**Methods:** Use sub-headings to describe the different techniques used in your project.

**Results:** Use sub-headings to describe your findings. If possible, organize your data in Tables, and show your results in good quality figures. Assemble all the figures at the end of the report. All Figures must be accompanied by clear and concise legends.

**Discussions:** Organize them in the points that you would like to make (use sub-headings):

1. The interpretation of your results;
2. How your results might have advanced the current knowledge in your area of interest;
3. Can you build a model based on the results that you've got?

## PRESENTATION

**Starting on March 2, 2020** students will present their work / progress to-date as part of the Immunology Graduate Student Seminar Series. Your presentation day can be found on the departmental website ([www.immunology.utoronto.ca](http://www.immunology.utoronto.ca)).

## PARTICIPATION

Your participation mark is obtained by attending at least 3 student seminars throughout the year. Attendance will be taken. If you do not attend at least 3 seminars, you will be assigned a mark of 0 for participation.

## DIGITAL VISUAL ABSTRACT

You will create a digital, visual abstract of your findings. Details on how to create the abstract will be emailed at the beginning of the winter term. As noted below, if your supervisor approves, this poster will be showcased on the Department of Immunology website:

<https://adjuvant.utoronto.ca/imm1450y/abstracts.html>

**Important notice:** The research being conducted by you, the undergraduate student, is part of an overall research program of the principal investigator and undergraduate projects are frequently connected with data produced by other lab members and collaborators. Hence, results and methodologies of your research project is the property of the principal investigator. If you wish to present your work in any manner to the general public or to your peers (e.g. at meetings, posting it on the internet), you must first get permission from the principal investigator to do so.

If there are any questions, please email Dr. Kianizad.

## ACADEMIC INTEGRITY:

Academic integrity is fundamental to learning and scholarship at the University of Toronto. Participating honestly, respectfully, responsibly, and fairly in this academic community ensures that the U of T degree that you earn will be valued as a true indication of your individual academic achievement, and will continue to receive the respect and recognition it deserves.

Familiarize yourself with the policies and guidelines listed in the School of Graduate Studies Policies and Guidelines website (<http://www.sgs.utoronto.ca/facultyandstaff/Pages/Policies-and-Guidelines.aspx>) and the University of Toronto's Code of Behaviour on Academic Matters (<http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>). This code is the rulebook for academic behaviour at the U of T, and you are expected to know the rules. Potential offences include, but are not limited to:

### *In papers and assignments:*

- Using someone else's ideas or words without appropriate acknowledgement.
- Copying material word-for-word from a source (including lecture and study group notes) and not placing the words within quotation marks.
- Submitting your own work in more than one course without the permission of the instructor.
- Making up sources or facts.
- Including references to sources that you did not use.
- Obtaining or providing unauthorized assistance on any assignment including:
  - working in groups on assignments that are supposed to be individual work,
  - having someone rewrite or add material to your work while "editing".
- Lending your work to a classmate who submits it as his/her own without your permission.

### *On tests and exams:*

- Using or possessing any unauthorized aid, including a cell phone.
- Looking at someone else's answers
- Letting someone else look at your answers.
- Misrepresenting your identity.
- Submitting an altered test for re-grading.

### *Misrepresentation:*

- Falsifying or altering any documentation required by the University, including doctor's notes.
- Falsifying institutional documents or grades.

The University of Toronto treats cases of academic misconduct very seriously. All suspected cases of academic dishonesty will be investigated following the procedures outlined in the Code. The consequences for academic misconduct can be severe, including a failure in the course and a notation on your transcript. If you have any questions about what is or is not permitted in this course, please do not hesitate to contact your instructor. If you have questions about appropriate research and citation methods, seek out additional information from your instructor, or from other available campus resources like the U of T Writing Website (<http://www.writing.utoronto.ca>). If you are experiencing personal challenges that are having an impact on your academic work, please speak to your instructor or seek the advice of the School of Graduate Studies.