

MICR334: Advanced Immunology

Semester Two 18 points

Course overview

Studying the immune system will enable you to understand how our bodies respond to infections, allergens, transplantation and cancer. Central to this is our understanding of how immune systems function and the application of this knowledge in these fields. A course in immunology opens up career possibilities in such fields as diverse as vaccine development, cancer immunology and autoimmunity.

This course in the fundamental aspects of immunology will build on your knowledge of immunology and introduce you to the applied and clinical aspects. This paper is ideal if you want to explore and develop your understanding of the immune system, and investigate the application of immunology knowledge at the interface between disease and the host response to disease.



Course objectives

- Build on fundamental knowledge of immunology.
- Investigate the application of immunology knowledge at the interface between disease and the host response to disease

Lecture course overview

- Comparative Immunity and Innate Immune Responses
- Antigen Recognition and Presentation
- Lab Preparation
- T Cell Immunology
- Immune Regulation
- B Cell Immunology
- Vaccines

Lab course overview

In these labs, you will work in groups to design and carry out experiments to test T cell plasticity. Several protocols will be provided to help you.

Assessment

1. Laboratory skills quiz (10%)
2. Laboratory assessment – poster (20%)
3. Final written exam (70%)

Textbook

Recommended text:

Either:

- *Kuby Immunology* by Thomas J. Kindt, Barbara A. Osborne, Richard A. Goldsby, 8th Edition (2019)

Or:

- *Immunobiology: the immune system in health and disease* by Janeway C. and Travers P, Blackwell Scientific Publications (8th or 9th Edition)

Teaching staff

- [Associate Professor Roslyn Kemp \(Convenor\)](#)
- [Associate Professor Alexander McLellan](#)
- [Associate Professor Joanna Kirman](#)
- [Megan Hall](#)

Workload expectations:

An 18 point paper has a minimum expectation of 14 hours per week per paper (180 per semester). This is made up of formal contact times (lectures, tutorials, laboratories etc.) and independent study (studying, revision, assignments, reading etc.).

Responsibilities of students

- Students are responsible for making themselves aware of all University rules and regulations pertaining to their rights and responsibilities as students and to the degree in which they are enrolled.
- Students shall be deemed to have received any information:
 - provided in scheduled classes, regardless of attendance;
 - sent to their student email address;
 - made available via Blackboard or other University-approved learning management systems.
- Students are expected to be aware of all information related to a paper that is made available to them, and, in a timely manner, to raise with staff any questions or concerns relating to this information.
- Students are expected to be aware of, and to act in accordance with, the University's [Academic Integrity Policy](#).

Academic integrity and academic misconduct

Academic integrity means being honest in your studying and assessments. It is the basis for ethical decision-making and behaviour in an academic context. Academic integrity is informed by the values of honesty, trust, responsibility, fairness, respect and courage. Students are expected to be aware of, and act in accordance with, the University's Academic Integrity Policy.

Academic Misconduct, such as plagiarism or cheating, is a breach of Academic Integrity and is taken very seriously by the University. Types of misconduct include plagiarism, copying, unauthorised collaboration, taking unauthorised material into a test or exam, impersonation, and assisting someone else's misconduct. A more extensive list of the types of academic misconduct and associated processes and penalties is available in the University's Student Academic Misconduct Procedures.

It is your responsibility to be aware of and use acceptable academic practices when completing your assessments. To access the information in the Academic Integrity Policy and learn more, please visit the University's Academic Integrity website at www.otago.ac.nz/study/academicintegrity or ask at the Student Learning Centre or Library. If you have any questions, ask your lecturer.

- Academic Integrity Policy (www.otago.ac.nz/administration/policies/otago116838.html)
- Student Academic Misconduct Procedures (<http://www.otago.ac.nz/administration/policies/otago116850.html>)