# NATS 7023 FORENSIC IMMUNOLOGY

**Credit Points 10** 

Legacy Code 301146

Coordinator Chris Lennard (https://directory.westernsydney.edu.au/search/name/Chris Lennard/)

**Description** This unit will introduce students to the principles of immunology, immunological techniques, and their application to forensic analyses. This unit is taught by the University of Florida as part of a collaborative venture between the University of Florida and Western Sydney University. Note: Further information on this unit is available from the University of Florida.

School Science

Discipline Forensic Science

Student Contribution Band HECS Band 2 10cp

Level Postgraduate Coursework Level 7 subject

#### Restrictions

Students must be enrolled in 3741 Master of Forensic Science, 3742 Graduate Diploma in Forensic Science or 3743 Graduate Certificate in Forensic Science.

# **Learning Outcomes**

On successful completion of this subject, students should be able to:

- 1. To understand the cellular basis of immunity, including innate and adaptive immunity
- 2. To understand the principles of antibody-antigen interactions
- 3. To know the functional and structural properties of antibodies
- 4. To know to the details of the immune system for capturing and displaying antigens to lymphocytes
- To know the details of cell-mediated immune responses and the effector mechanisms of cell mediated immunity
- 6. To know the details of the humoral immune response
- 7. To understand the process resulting in antibody diversity
- 8. To understand the processes of complement mediated reactions
- 9. To understand the processes of hypersensitivity
- To know examples of diseases caused by defective immune responses, congenital and acquired immunodeficiencies
- To know the principles and processes of Immunology and serology laboratory methods

# **Subject Content**

Module 1 The Basics of Immunology

Module 2 Antibodies

Module 3 Antigen Capture, Presentation and Recognition

Module 4 Cell Mediated and Humoral Immune Responses

Module 5 Diversity, Assembly, Switching and Maturation

Module 6 Complement System, Activation and Regulation

Module 7 Immune Response Disorders

Module 8 Immunology and Serology Laboratory Methods

### **Assessment**

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Item	Length	Percent	Threshold	Individual/ Group Task
Final Exam	Not specified	100	N	Individual

**Teaching Periods** 

## **Uni of Florida/Canberra-Term 1**

#### Online

#### **Online**

**Subject Contact** Chris Lennard (https://directory.westernsydney.edu.au/search/name/Chris Lennard/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject\_code=NATS7023\_22-FT1\_ON\_0#subjects)

## **Uni of Florida/Canberra-Term 3**

#### **Online**

#### **Online**

Subject Contact Chris Lennard (https://directory.westernsydney.edu.au/search/name/Chris Lennard/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject\_code=NATS7023\_22-FT3\_ON\_O#subjects)