

MODULE DESCRIPTOR

Module Title

Clinical Immunology

Reference	PL3901	Version	3
Created	January 2024	SCQF Level	SCQF 9
Approved	June 2023	SCQF Points	15
Amended	April 2024	ECTS Points	7.5

Aims of Module

To provide students with the ability to discuss the molecular and cellular basis of diseases affecting the immune system, and the applications of immunological techniques designed to diagnose and monitor them.

Learning Outcomes for Module

On completion of this module, students are expected to be able to:

- 1 Discuss lymphocyte activation and control, and the interaction of the immune system with antigen.
- 2 Explain the immunology of hypersensitivity, autoimmunity, immunodeficiency, transplantation and cancer.
- 3 Demonstrate knowledge and understanding of the features and applications of immunoassays in the diagnosis and monitoring of diseases affecting the immune system.

Indicative Module Content

Innate and adaptive immunity. Innate sensing of infection and tissue damage. Acute inflammation. Lymphocyte Activation & Control: first and second signals, accessory molecules, soluble immunoregulators (cytokines, interleukins, chemokines. Defence against Infection: vaccination, subversion by pathogens. Immune regulation: regulatory T cells, central and peripheral tolerance. Hypersensitivity: IgE mediated allergy. Autoimmunity: pathogenic mechanisms, organ specific and systemic. Immunodeficiency: primary and secondary. Cancer : tumour antigens, evasion, immunotherapy. Immunoassays: ELISA, functional assays, flow cytometry.

Module Delivery

This is a lecture based module supplemented by tutorials and group discussions.

Indicative Student Workload

	Full Time	Part Time
Contact Hours	40	N/A
Non-Contact Hours	110	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	N/A
<i>Actual Placement hours for professional, statutory or regulatory body</i>		

ASSESSMENT PLAN

If a major/minor model is used and box is ticked, % weightings below are indicative only.

Component 1

Type:	Coursework	Weighting:	100%	Outcomes Assessed:	1, 2, 3
Description:	Case Studies with data interpretation.				

MODULE PERFORMANCE DESCRIPTOR**Explanatory Text**

Component 1 (CW1) comprises 100% of the module grade. A minimum of a Grade D is required to pass the module.

Module Grade	Minimum Requirements to achieve Module Grade:
A	A
B	B
C	C
D	D
E	E
F	F
NS	Non-submission of work by published deadline or non-attendance for examination

Module Requirements

Prerequisites for Module	Successful completion of Stage 2 of the course, or equivalent.
Corequisites for module	None.
Precluded Modules	None.

ADDITIONAL NOTES

In accordance with the BSc (Hons) Biomedical Science/BSc (Hons) Applied Biomedical Science Course Specification and IBMS Criteria and Requirements for Degree Accreditation Criteria 4.2 (v), students must achieve a pass mark in all assessment components for modules that cover the clinical laboratory sciences subject areas.

INDICATIVE BIBLIOGRAPHY

- 1 Murphy, K, Weaver, C, Berg, L.J. *Janeway's Immunobiology Tenth International Student Edition, 2022, Norton and Company*
- 2 DELVES, P.J., MARTIN, S.J., BURTON, D.R and ROITT, I.M. *Roitt's Essential Immunology. 13th Edition, 2017: Wiley-Blackwell Publishing.*