Module Title **Clinical Immunology** **Keywords** Lymphocyte Activation and Control, Infection, Hypersensitivity, Autoimmunity, Immunodeficiency, Transplantation, Cancer, Immunoassays.	Reference AS3901 SCQF SCQF Level 9 SCQF Points 15 ECTS Points 7.5 Created May 2002 Approved May 2011 Amended May 2008 Version No. 1

This Version is No Longer Current

The latest version of this module is available here

Prerequisites for Module

AS1901 Biology for Life Sciences, AS2901 and AS2902 Human Anatomy and Physiology or equivalents.

Corequisite Modules

None.

Precluded Modules

None.

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

Transplantation: rejection, solid organs, bone marrow.
Cancer : tumour antigens, evasion.
Immunoassays: haemagglutination, RIA, ELISA, tissue typing, functional assays.

Indicative Student Workload

Contact Hours	Full Time
Lectures	32
Supervised Assessments	2
Tutorials/Seminars	6
Directed Study	
Directed Study	40
Private Study	
Private Study	70

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. Explain the features and applications of immunoassays in the diagnosis and monitoring of diseases affecting the immune system.

Indicative Module Content

Lymphocyte Activation & Control: first and second signals, accessory molecules, soluble immunoregulators (cytokines, interleukins, chemokines).Defence against Infection: vaccination, subversion by pathogens, superantigens. Hypersensitivity : types I to V. Autoimmunity: MHC, rheumatological (SLE, RA, autoantibodies) and kidney(Goodpastures) and

Mode of Delivery

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

Assessment Plan

	Learning Outcomes Assessed
Component 1	2,3
Component 2	1

Component 2 is assessed by a problem solving exercise.

Component 1 is assessed by an examination that will consist of extended response questions.

Indicative Bibliography

1. HALL, A., SCOTT, C.,and BUCKLAND, M. *Clinical Immunology.* Current edition. Oxford University Press.
2. DELVES, P.J., MARTIN, S.J., BURTON, D.R and ROITT, I.M. *Roitt's Essential Immunology.* Current Edition. Wiley-Blackwell Publishing.

organ-specific (thyroid, coeliac, pernicious anaemia, diabetes) diseases. Immunodeficiency: Complement, primary (T & B & NK cell) and secondary (HIV).