MODULE SPECIFICATION

Academic Year (student cohort covered by specification)	2025-26
Module Code	IDM213
Module Title	Immunology of Infection and Vaccines
Module Organiser(s)	Prof Martin Holland and Dr Sarah Burl, Deputy MO Dr Anja Saso
Contact email	The LSHTM distance learning programmes and modules are run in collaboration with University of London Worldwide. Enquiries may be made via the Student Advice Centre. (Enquiries from face-to-face i.e. London-based the LSHTM MSc or research students regarding study of DL modules should be emailed to distance@lshtm.ac.uk.)
Faculty	Infectious & Tropical Diseases: The London School of Hygiene & Tropical Medicine https://www.lshtm.ac.uk/research/faculties/itd
FHEQ Level	Level 7
Credit Value	**CATS:** 15 **ECTS:** 7.5
HECoS Code	100265:100345 (1:1)
Mode of Delivery	Distance Learning
Mode of Study	Directed self-study, through provided and online materials
Language of Study	English
Pre-Requisites	This elective module is designed for students on the Infectious Diseases Programme who will have studied immunology as part of the IDM Core Modules. Those who wish to study this module as an individual module or as part of another programme should have a prior knowledge of biochemistry, cell biology, genetics, immunology and microbiology in order to be able to work through and benefit fully from this module.
Accreditation by Professional Statutory and Regulatory Body	None
Module Cap (Maximum number of students)	None
Target Audience	This module is intended for those who wish to understand the immune response to infection and vaccines.

Module Description	This module will cover how various components of the immune system protect us from infection. This will be achieved by introducing how different classes of pathogens evade immune responses and the types of response that are crucial in protection. This forms the basis of discussion of the types of responses vaccinations need to induce protection. Although not all aspects of immunology can be covered in depth, more detailed insight will be provided into selected aspects of current research of particular relevance to vaccine design.
Duration	Distance learning module studies begin in early October. Students may start their studies at any time from receipt of study materials and work through the material until the start of the June assessments (although assessment submission deadlines which are earlier than this must be observed).
Last Revised (e.g. year changes approved)	March 2025

Programme(s) This module is linked to the following programme(s)	**Status**
PGDip/MSc Infectious Diseases (Distance Learning - University of London Worldwide)	Elective option
PGDip/MSc Clinical Trials (Distance Learning - University of London Worldwide)	Elective option
PGDip/MSc Epidemiology (Distance Learning - University of London Worldwide)	Elective option
PGDip/MSc Global Health Policy (Distance Learning - University of London Worldwide)	Elective option
PGDip Public Health (Distance Learning - University of London Worldwide)	Elective Option
MSc Public Health (General Stream) (Distance Learning - University of London Worldwide)	Elective Option
MSc Public Health: Environment and Health (Distance Learning - University of London Worldwide)	Elective Option
MSc Public Health: Health and Promotion (Distance Learning - University of London Worldwide)	Elective Option
MSc Public Health: Health Services Management (Distance Learning - University of London Worldwide)	Elective Option

Module Aim and Intended Learning Outcomes

Overall aim of the module
The overall module aim is to: • provide an overview of immunity to infections and developments in vaccines for infectious diseases.

Module Intended Learning Outcomes
Upon successful completion of the module a student will be able to: 1. Have a critical awareness of the main immunological responses to selected pathogens and their influence on immunity and vaccine design; 2. Critically analyse and compare the evasion strategies of pathogens and the implications for vaccine design; 3. review and analyse current literature using evidence to support or contradict a hypothesis, for example, the application of immunological techniques, data interpretation etc.

Indicative Syllabus

Session Content
The module is expected to cover the following topics: • **Section 1** The immune system and vaccine design This section aims to provide a basic understanding of immunology. The sessions cover innate immunity, acquired immunity, the various forms of immunodeficiency that affect these immune systems and then a consideration of vaccines and how they work. • **Section 2** Immunity to infection and vaccines These sessions are arranged in four blocks each deal with the immunology of particular bacterial, fungal, viral, and parasitic infections. • **Section 3** Methodology This section contains sessions on methods which are central to the investigation of immune responses. • **Section 4** Journal Club A research paper has been chosen that is relevant to the module for students to learn how to interpret and critique. Section 2 is the core component of the programme with section 1 providing an introduction where needed to the immune response. Sections 3 and 4 are then additional components that provide more insight into the practical aspects of immunology research.

Teaching and Learning

Notional Learning Hours

Type of Learning Time	Number of Hours	Expressed as Percentage (%)
Directed self-study	80	53.3
Self-directed learning	20	13.3
Assessment, review and revision	50	33.3
Total	**150**	**100**

Teaching and Learning Strategy
Learning is self-directed against a detailed set of learning objectives using the materials provided including recorded lectures and any online interactive sessions provided. Students are strongly encouraged to participate in the module-specific discussion forums available on Moodle to obtain tutor support, and to make use of the LSHTM online library resources. In addition, written feedback is provided on submitted assignments.

Assessment

Assessment Strategy
Formal assessment of this module includes a Time-Limited Assessment (70%) and an Assessed Assignment comprising a 2500-word essay (30%).

Assessment submission deadlines

Assessed Assignment submission deadline **31st March**

Time-Limited Assessments take place in **June**

Summative assessment

Assessment Type	Assessment Length	Weighting (%)	Intended Module Learning Outcomes Tested
Assessed Assignment	2500 words	30	1 and 2
Time-Limited Assessment	3600 words	70	1, 2 and 3

Assignments for this module can be submitted only once annually, no later than **31st March** and must be submitted via the online Assignment Management System.

Time-Limited Assessment for DL modules are held once a year, mostly in June (including resits).

Time-Limited Assessment are held in accordance with University of London's annual guidance.

Please note that a separate assessment fee may be payable in addition to the module fee.

Resitting assessment
Resits will accord with the LSHTM's Resits Policy. The Resit assessment will be the same assessment type as the first attempt (see previous table). (Note that for those resitting module assessments, a fee will be payable.)

Resources

Indicative reading list

- Playfair, J., & Bancroft, G., (2013). *Infection & Immunity*. 4th Ed. Oxford University Press. ISBN: 9780199609505.
- Goering, R.V., Dockrell, H.M., Zuckerman, M. and Chiodini, P.L., (2024) *Mims' Medical Microbiology and Immunology.* 7th Ed. ISBN: 9780702071546.

Textbooks will be made available in e-format to registered students in early autumn.

Other resources

Study Guide: Available online, and to download, via the virtual learning environment.

Reader: On-line reading list via Virtual Learning Environment

In addition to the materials above, students are given access to the **LSHTM Virtual Learning Environment, Moodle** where they can access the study guide, reading list, web-based discussion forums, assignments, supplementary materials and the **LSHTM online library resources**.

Teaching for Disabilities and Learning Differences

The module-specific site on Moodle provides students with access to the module learning materials, including a study guide (with accessible printable versions of sessions) and online reading list (containing essential readings, and textbooks, if available), and additional resources including supplementary exercises.

All materials posted up on Moodle areas, including computer-based sessions, have been made accessible where possible. The LSHTM Moodle has been made accessible to the widest possible audience, using a VLE that allows for up to 300% zoom, permits navigation via keyboard and use of speech recognition software, and that allows listening through a screen reader. All students have access to "SensusAccess" software which allows conversion of files into alternative formats.

If you have specific, access requirements please contact the Inclusive Practice Manager via special.arrangements@london.ac.uk to request an alternative format of the study guide and for special exam arrangements.