



<h1>Module Specification</h1>	 <p>UNIVERSITY OF LONDON INTERNATIONAL PROGRAMMES</p>	<p>LONDON SCHOOL of HYGIENE & TROPICAL MEDICINE</p> 
<h2>GENERAL INFORMATION</h2>		
Module name	Biology of Infectious Diseases	
Module code	IDM103	
Module Organiser(s)	Anita Skinner & Kevin Tetteh	
Contact email	<p>The LSHTM distance learning courses and modules are run in collaboration with the University of London International Programmes. Enquiries may be made via their Student Advice Centre at: http://www.londoninternational.ac.uk/contact-us. (Enquiries from face-to-face i.e. London-based LSHTM MSc or research students regarding study of DL modules should be emailed to distance@lshtm.ac.uk.)</p>	
Home Faculty	Faculty of Infectious & Tropical Diseases London School of Hygiene & Tropical Medicine http://www.lshtm.ac.uk/itd/	
Level	This module is at Level 7 (postgraduate Masters 'M' level) of the QAA Framework for Higher Education Qualifications in England, Wales & Northern Ireland (FHEQ)	
Credit	LSHTM award 15 credits on successful completion of this module	
Accreditation	Not currently accredited by any other body	
Keywords	Viruses, bacteria, protozoa, helminths, arthropods, vectors, host-parasite relationships, immune evasion.	
<h2>AIMS, OBJECTIVES AND AUDIENCE</h2>		
Overall aim	This module introduces students to the way pathogens (viruses, bacteria, fungi, protozoa, helminths) invade, establish, cause disease and evade the immune response in the vertebrate host.	
Intended learning outcomes	<p>By the end of this module, students should be able to:</p> <ul style="list-style-type: none"> • Distinguish between the different relationships that exist between pathogens and their human hosts. • Give examples of pathogens (viruses, bacteria, fungi, protozoa and helminths) that cause the most important communicable diseases in humans. Explaining how the host responds to infections and how pathogens cause disease. • Discuss the concept of vectors with particular reference to insects and acarines, including examples of transmitted pathogens. • Assess how knowledge of the relationship between pathogens, vectors and their hosts can be used to reduce the global burden of communicable diseases. 	
Target audience	This module is intended for all those with an interest in infectious diseases particularly scientists wishing to expand their knowledge of infectious diseases	

and clinicians and other health workers wishing to expand their knowledge of the biological aspects of infectious diseases.

CONTENT

Session content

The module includes sections addressing the following topics:

Section 1

The first section consists of a single introductory session that sets the scene for what is to come and describes some of the important concepts that students will need to know about such as the nature of parasitism.

Section 2

Section 2 is a large one consisting of seven sessions, six of which are divided into two parts and one into three parts, which first introduce students to the major groups of pathogens and describe what infectious diseases are and then considers in a bit more detail the viruses, bacteria, fungi, protozoa, helminth worms and arthropods responsible for the most important infectious diseases.

Section 3

The third section describes how infectious organisms enter their hosts, locate their final position within the host and spread throughout the body.

Section 4

Section 4 is concerned with the relationships that exist between pathogens and their hosts, the ways in which infectious organisms evade the host's immune responses and the pathology and immunopathology of infectious diseases.

Section 5

The fifth section takes the form of a number of case studies that take students from the theoretical aspects of the earlier material into the real world of clinical disease.

Section 6

The sixth and final section will give students an opportunity to revise everything they have learned in a comprehensive and structured way.

TEACHING, LEARNING AND ASSESSMENT

Study resources provided or required

The following materials are provided to students after registration for this module once a year in September:

Study Guide: Paper version.

Reader: Reprints of associated journal articles.

Textbooks:

- Goering, R.V., Dockrell, H.M., Zuckerman, M., Roitt, I.M. and Chiodini, P.L., (2012) *Mims' Medical Microbiology*, 5th Ed. ISBN: 978-0723436010.
- Service, M., (2012) *Medical Entomology for Students*. 5th Ed. Cambridge University Press. ISBN: 978-1107668188.
- Cheesbrough, M., (2014) *Tropical Medicine Microscopy*, Tropical Health Technology.

In addition to the materials above, students are given access to the LSHTM **Virtual Learning Environment, Moodle** (for web-based discussion forums etc.) and the LSHTM **online library resources**.

Audio-recordings of on-campus lectures are not available for this module.

Teaching and learning methods	Learning is self-directed against a detailed set of learning objectives using the materials 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 tutor feedback is provided on submitted formative assignments.
Assessment details	Optional formative assignments are available to help students practice some of the principles discussed, and obtain tutor feedback. Formal assessment of this module includes a two-hour unseen written paper examination with 15 minutes' additional reading/planning time (100%). If students fail the module overall, they are allowed one further attempt at the examination.
Assessment dates	Assignments for this module can be submitted once annually, no later than 31 st March and must be submitted via the online Assignment Management System. Unseen written examinations for DL modules are held once a year, in June (including resits). Examinations are normally held in a student's country of residence, in one of over 650 examination centres worldwide. They are arranged mainly through Ministries of Education or the British Council. A list of examination centres can be found at http://www.londoninternational.ac.uk/community-support-resources/current-students/examinations/examination-centres . A local fee will be payable direct to the examination centre. This fee is in addition to the course/module fee and is set by, and paid directly to, the individual examination centres. The level of local examination centre fees varies across the world and neither the University of London International Programmes nor the LSHTM have any control over the fee amount.
Language of study and assessment	English (please see 'English language requirements' below regarding the standard required for entry).
TIMING AND MODE OF STUDY	
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 examinations (although assessment submission deadlines which are earlier than this must be observed).
Dates	Tutorial support for distance learning modules is available from the beginning of October through to the end of May.
Mode of Study	By distance learning.
Learning time	The notional learning time for the module totals 150 hours, consisting of: <ul style="list-style-type: none"> • Directed self-study (reading and working through the provided module material) ≈ 75 hours • Self-directed learning (general reading around the subject, library, Moodle discussion forums) ≈ 50 hours • Assessment, review and revision ≈ 25 hours
APPLICATION, ADMISSION AND FEES	
Pre-requisites	Those wishing to study this module must have regular access to the internet to participate in module-specific discussions on Moodle, benefit from online library facilities and submit assignments.

English language requirements	A strong command of the English language is necessary to benefit from studying the module. Applicants whose first language is not English or whose prior university studies have not been conducted wholly in English must fulfil LSHTM's English language requirements , with an acceptable score in an approved test taken in the two years prior to entry. Applicants may be asked to take a test even if the standard conditions have been met.
Student numbers	There is no cap on the number of students who can register for this distance learning module. The number of students actively studying this module varies, but typically approximately 110 students register for the module per year.
Student selection	This module is available to be studied by students on the following distance learning courses: MSc, Postgraduate Diploma or Postgraduate Certificate Infectious Diseases course. Alternatively, students may register for this as an "individual module". This module is also open to LSHTM research degree students.
Fees	The current schedule of fees can be viewed at http://www.londoninternational.ac.uk/fees (click on the LSHTM course link)
Scholarships	Scholarships are not available for individual modules. Some potential sources of funding are detailed on the LSHTM website.
Admission deadlines	Applications for LSHTM distance learning courses and modules are managed by the University of London International Programmes. To apply to take either a formal award (i.e. PG Certificate, PG Diploma or MSc) or an individual module, click on the relevant link on the right hand side of the page at http://www.londoninternational.ac.uk/courses/postgraduate/lshmt/infectious-diseases-msc-postgraduate-diploma-postgraduate-certificate . Key deadlines are as follows: <ul style="list-style-type: none"> • If taken as part of a formal award (i.e. PG Certificate, PG Diploma or MSc): <ul style="list-style-type: none"> ➢ Application deadline: 31 August each year ➢ Registration deadline 30 September each year (<i>continuing students may register until 31 October but are strongly recommended to register before this deadline because the study year starts beginning of October</i>) • If taken as an individual module: <ul style="list-style-type: none"> ➢ Application deadline: 31 August each year ➢ Registration deadline: 30 October each year (LSHTM research students wishing to study this module should note information given in the mixed mode study option links at http://intra.lshtm.ac.uk/edu/researchdegrees/rdsupportframework/profdev/rd_mixedmodeinformation.pdf .)
ABOUT THIS DOCUMENT	
This module specification applies for the academic year 2017/18.	
Last revised/approved, by M Bridge 2/2/16	
Further revisions revised by	
London School of Hygiene & Tropical Medicine, Keppel St., London WC1E 7HT. www.lshtm.ac.uk	