

# Module Specification



**UNIVERSITY  
OF LONDON**  
INTERNATIONAL  
PROGRAMMES

LONDON  
SCHOOL of  
HYGIENE  
& TROPICAL  
MEDICINE



## GENERAL INFORMATION

**Module name** Epidemiology of Communicable Diseases

**Module code** EPM301

**Module Organiser(s)** Matt Cairns, Annabelle Gourlay, Paul Milligan

**Contact email** The LSHTM distance learning programmes and modules are run in collaboration with the University of London International Programmes. Enquiries may be made via their Student Advice Centre at: [www.londoninternational.ac.uk/contact-us](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](mailto:distance@lshtm.ac.uk).)

**Home Faculty** Faculty of Epidemiology and Population Health  
London School of Hygiene & Tropical Medicine  
<http://www.lshtm.ac.uk/eph/>

**Level** This module is at Level 7 (postgraduate Masters 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** Epidemiology, quantitative methods, infection, infectious disease, communicable disease, outbreak, surveillance, vaccination, dynamics of infection, infectious disease modelling

## AIMS, OBJECTIVES AND AUDIENCE

**Overall aim** This module aims to provide students with an in-depth knowledge of important concepts in communicable disease epidemiology, and many of the skills to apply these concepts in practice.

**Intended learning outcomes** By the end of this module, students should be able to:

- identify factors that suggest a disease has an infectious cause,
- describe the factors determining the spatial, temporal and social distributions of communicable diseases,
- explain how to measure transmissibility of infections,
- design, carry out, analyse, interpret and report an outbreak investigation,
- explain the principles underlying mathematical models of communicable diseases,
- compare and contrast methods for the evaluation of vaccine efficacy,
- demonstrate practical applications of epidemiological methods through the study of research papers on specific diseases

	<ul style="list-style-type: none"> <li>• optional material is available to help students learn to appraise key epidemiological concepts in the study of three infectious diseases of global health importance: HIV/AIDS, tuberculosis and malaria,</li> <li>• optional material is available to help students learn to understand the principles of the molecular epidemiology of infectious diseases.</li> </ul>
<b>Target audience</b>	This module is intended for students interested in the epidemiology and control of infectious diseases in either developing or developed countries.
<b>CONTENT</b>	
<b>Session content</b>	<p>The module includes sessions addressing the following topics:</p> <p>EC01 Introduction  EC02 Is the disease infectious?  EC03 Measuring transmissibility  EC04 Investigating an outbreak  EC05 A simulated outbreak investigation, followed by a 6 week practical exercise  EC06 Modelling infectious diseases  EC07 Vaccine evaluation  EC08 Summary</p> <p>These sessions are followed by two optional sessions,</p> <p>EC09 Introduction to the epidemiology of infectious diseases: HIV/AIDS, tuberculosis and malaria  EC10 Introduction to molecular epidemiology of infectious diseases.</p>
<b>TEACHING, LEARNING AND ASSESSMENT</b>	
<b>Study resources provided or required</b>	<p>The following materials are provided to students after registration for this module once a year in September:</p> <ul style="list-style-type: none"> <li>• CD-Rom - EPM301</li> <li>• EPM301 Epidemiology of Communicable Diseases Study Guide &amp; Reader.</li> </ul> <p><u>Software:</u></p> <ul style="list-style-type: none"> <li>• Stata</li> </ul> <p>In addition to the materials above, students are given access to  i) the LSHTM Virtual Learning Environment, Moodle, which contains resources such as discussion forums and supplementary programme materials and  ii) the LSHTM online library.</p> <p>Students who are taking this as an individual module or as part of the MSc/PG Diploma (CF) Clinical Trials programme will also have online access to the EPM1 computer-based sessions (this access will exclude tutor support and associated textbooks).</p>
<b>Teaching and learning methods</b>	<p>Learning is self-directed against a detailed set of learning objectives using the materials provided. The key learning methods are:</p> <ul style="list-style-type: none"> <li>• Reading and reflecting on CAL (computer-assisted learning) materials which introduce, explain and apply the principles and methods covered in the module.</li> <li>• Reading and reflecting on provided materials which support the learning in the CAL sessions. This will include making use of the LSHTM online library resources.</li> <li>• Participating in a real-time group-based exercise. This is a large proportion of the study time and is spent on an outbreak investigation exercise leading to the assessed assignment report. During this time, students work with a</li> </ul>

	<p>small group of fellow students over a six week period using an assigned discussion group on the web-based discussion forum. The group work exercise is usually run once in the autumn term and on two occasions in the spring term.</p> <ul style="list-style-type: none"> <li>• Accessing academic support which is available from the module tutors through the web-based discussion forums and real-time sessions (using Blackboard Collaborate) in which students are encouraged to participate.</li> </ul>
<b>Assessment details</b>	<p>Formal assessment of this module includes a two-hour unseen written examination with 15 minutes' additional reading/planning time [70%] and an assessed assignment comprising the group-work report [30%].</p> <p>If students fail the module overall, they are allowed one further attempt at the failed element (examination and/or assignment).</p>
<b>Assessment dates</b>	<p>The deadline for registration for the group work is mid-October. Occasionally, later registration for group work (and the module) is possible but this must be discussed on a case-by-case basis with the module organisers. Assignments for this module can be submitted only once annually, no later than the individual group-work deadline and must be submitted via the online Assignment Management System.</p> <p>For students who are required to re-sit, the next assessment will be in the following academic year.</p> <p>Unseen written examinations for DL modules are held once a year, in June (including re-sits). Examinations are normally taken in a student's country of residence, in one of over 650 examination centres worldwide (arranged mainly through Ministries of Education or the British Council). A list of examination centres can be found at <a href="http://www.londoninternational.ac.uk/community-support-resources/current-students/examinations/examination-centres">www.londoninternational.ac.uk/community-support-resources/current-students/examinations/examination-centres</a>.</p> <p>A local fee will be payable direct to the examination centre. This fee is in addition to the programme/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.</p> <p>For students who are required to re-sit, or granted a deferral or new attempt at the written examination, the next examination date will normally be the following June.</p>
<b>Language of study and assessment</b>	<p>English (please see 'English language requirements' below regarding the standard required for entry).</p>
<b>TIMING AND MODE OF STUDY</b>	
<b>Duration</b>	<p>Students may start their studies at any time from receipt of study materials (despatched annually usually during September) and work through the material until the start of the June examinations (although assessment submission deadlines which are earlier than this must be observed).</p> <p>To allow time for students to register for specific dates to carry out the outbreak exercise, module registration after 30 September is not normally allowed. If you are given permission to register for the module in October you should note that introductory messages, and some online activities (for example discussion forums and/or real-time welcome sessions) may have already taken place before you get access to the Virtual Learning Environment (Moodle). All such messages and recordings (where applicable) will be available to access throughout the study year.</p>

<b>Dates</b>	Tutorial support for this module is available from the beginning of October through to the examination in June.
<b>Mode of study</b>	By distance learning.
<b>Learning time</b>	The notional learning time for the module totals 150 hours, consisting of: <ul style="list-style-type: none"> <li>• <b>Directed self-study</b> (reading and working through the provided module material) ≈ 70 hours</li> <li>• <b>Self-directed learning</b> (general reading around the subject, library, Moodle discussion forums) ≈ 30 hours</li> <li>• <b>Assessment, review and revision</b> ≈ 50 hours</li> </ul>
<b>APPLICATION, ADMISSION AND FEES</b>	
<b>Pre-requisites</b>	<p><u>Epidemiology students</u> must have passed EPM101 <i>Fundamentals of Epidemiology</i> and EPM102 <i>Statistics with Computing</i>, and should have studied EPM103 <i>Practical Epidemiology</i> and EPM105 <i>Writing and Reviewing Epidemiological Papers</i> prior to studying this module.</p> <p><u>Clinical Trials students</u> must ensure that they have studied CTM207 <i>Design and Analysis of Epidemiological Studies</i> before studying this module or must obtain Programme Director approval before registration.</p> <p><u>Demography &amp; Health students</u> should have studied and have an understanding of EPM101 <i>Fundamentals of Epidemiology</i> and EPM102 <i>Statistics with Computing</i>.</p> <p><u>Students studying this module as an individual module</u> must have basic epidemiological knowledge and skills equivalent to EPM101 <i>Fundamentals of Epidemiology</i> and EPM102 <i>Statistics with Computing</i>.</p> <p><b>The material is at an advanced level and includes some interpretation of mathematical formulae.</b></p> <p>Those wishing to study this module must have regular access to the internet to participate in module-specific discussions and tutorials on Moodle, benefit from online library facilities and submit assignments.</p> <p>Those wishing to study this module must also be able to access the internet at least 3 times per week for a 6-week period between November and March for the assessed assignment.</p>
<b>English language requirements</b>	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 <a href="#">English language requirements</a> , 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.
<b>Student numbers</b>	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 approx. 80 students register for the module per year.
<b>Student selection</b>	<p>This module is available only to those registered for the DL PG Dip or MSc Epidemiology, Demography &amp; Health or Clinical Trials programmes. Alternatively, students may register for this as an "individual module".</p> <p>This module is also open to students registered on LSHTM face-to-face (i.e. London-based) MSc programmes (subject to programme-specific limitations) and research degree students.</p>

<b>Fees</b>	The current schedule of fees can be viewed at <a href="http://www.londoninternational.ac.uk/fees">www.londoninternational.ac.uk/fees</a> (click on the LSHTM programme link).
<b>Scholarships</b>	Scholarships are not available for individual modules. Some potential <a href="#">sources of funding</a> are detailed on the LSHTM website.
<b>Admission deadlines</b>	<p>Applications for LSHTM distance learning programmes 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 the relevant link on the right hand side of the page at <a href="http://www.londoninternational.ac.uk/courses/postgraduate/lshtm/epidemiology-msc-postgraduate-diploma-postgraduate-certificate">http://www.londoninternational.ac.uk/courses/postgraduate/lshtm/epidemiology-msc-postgraduate-diploma-postgraduate-certificate</a>.</p> <p>Key deadlines are as follows:</p> <ul style="list-style-type: none"> <li>➤ Application deadline: 31 August <i>(Note: applicants who submit applications on or after 1 June 2017 will be required to pay an application fee of £100 at the point of submission, which will be deducted from the balance of fees payable upon registration. If the application does not result in registration, the application fee will not be refunded. No application fee will apply to applications submitted on or before 31 May 2017.)</i></li> <li>➤ Registration deadline: 30 September (new, continuing and individual module students)</li> </ul> <p><i>(Please note that the academic year starts 1 October. Registration later than 30 September is not normally permitted for this module due to students having to register early on in the academic year for specific dates to carry out the outbreak exercise.)</i></p> <p>(In-house LSHTM MSc and research students wishing to study this module should note information given in the mixed mode study option links, for MSc students at: <a href="http://www.lshtm.ac.uk/edu/taughtcourses/handbooks_regs_pols/index.html">http://www.lshtm.ac.uk/edu/taughtcourses/handbooks_regs_pols/index.html</a> and for DrPH/research degree students at <a href="http://intra.lshtm.ac.uk/edu/researchdegrees/rdsupportframework/profdev/rd_mixedmodeinformation.pdf">http://intra.lshtm.ac.uk/edu/researchdegrees/rdsupportframework/profdev/rd_mixedmodeinformation.pdf</a>.)</p>
<b>ABOUT THIS DOCUMENT</b>	
<b>This module specification applies for the academic year: 2017-18</b>	
<b>Last revised/approved</b> 01/03/2017, by Matt Cairns	
Further revisions revised [Date / Month / Year], by [Name]	
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