

# Module Specification



**UNIVERSITY OF LONDON**  
INTERNATIONAL PROGRAMMES

LONDON SCHOOL of HYGIENE & TROPICAL MEDICINE



## GENERAL INFORMATION

<b>Module name</b>	<b>Practical Epidemiology</b>
<b>Module code</b>	EPM103
<b>Module Organiser(s)</b>	Clara Calvert, Alison Price, Laurie Tomlinson
<b>Contact email</b>	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: <a href="http://www.londoninternational.ac.uk/contact-us">www.londoninternational.ac.uk/contact-us</a> .  (Enquiries from face-to-face i.e. London-based LSHTM MSc or research students regarding study of DL modules should be emailed to <a href="mailto:distance@lshtm.ac.uk">distance@lshtm.ac.uk</a> .)
<b>Home Faculty</b>	Faculty of Epidemiology and Population Health London School of Hygiene & Tropical Medicine <a href="http://www.lshtm.ac.uk/eph/">http://www.lshtm.ac.uk/eph/</a>
<b>Level</b>	This module is at Level 7 (postgraduate Masters level) of the QAA <a href="#">Framework for Higher Education Qualifications</a> in England, Wales & Northern Ireland (FHEQ).
<b>Credit</b>	LSHTM award 15 credits on successful completion of this module.
<b>Accreditation</b>	Not currently accredited by any other body.
<b>Keywords</b>	Research methods, Epidemiology, Statistics, Data management, Communicable diseases (in general), Non-communicable diseases (in general), Behavioural aspects (in general), Measuring health status, Values / Human rights / (bio)Ethics, Communication (oral, written), Team-work (including interdisciplinary, inter-professional).

## AIMS, OBJECTIVES AND AUDIENCE

<b>Overall aim</b>	The aim of this module is to provide students with a step-by-step guide to the practical stages involved in the planning and conduct of an epidemiological study.
<b>Intended learning outcomes</b>	By the end of this module, students should be able to: <ul style="list-style-type: none"> <li>• develop a research question from a health-related problem</li> <li>• identify relevant ethical issues in a given study outline</li> <li>• understand sampling procedures and be able to undertake calculations for sample size and power requirements</li> <li>• understand the justification and methods for randomisation in trials</li> <li>• identify methods of data collection appropriate to the study design and population</li> <li>• design efficient data collection and data management procedures</li> <li>• perform data cleaning and data management operations to prepare for data analysis.</li> </ul>

	In addition, through its optional sessions, the module offers the opportunity to revise key concepts taught in EPM101 and EPM102, including, but not limited to, confounding and statistical inference.																														
<b>Target audience</b>	<b>Practical Epidemiology</b> is a core module for all students on the DL PG Certificate/PG Diploma/MSc Epidemiology programmes and an elective module for students on the DL PG Diploma/MSc Demography & Health programmes.																														
<b>CONTENT</b>																															
<b>Session content</b>	<p>The module includes sessions addressing the following topics:</p> <table border="1"> <thead> <tr> <th>Session</th> <th>Title</th> </tr> </thead> <tbody> <tr> <td>PE01</td> <td>Module introduction and overview</td> </tr> <tr> <td>PE02</td> <td>Planning your study</td> </tr> <tr> <td>PE03</td> <td>Ethical issues in epidemiological research</td> </tr> <tr> <td>PE04</td> <td>Introduction to sampling methods</td> </tr> <tr> <td>PE05</td> <td>More complex sampling methods</td> </tr> <tr> <td>PE06</td> <td>Size of a study</td> </tr> <tr> <td>PE07</td> <td>Randomisation</td> </tr> <tr> <td>PE08</td> <td>Quantitative data collection 1: Questionnaires</td> </tr> <tr> <td>PE09</td> <td>Quantitative data collection 2: Other methods</td> </tr> <tr> <td>PE10</td> <td>Qualitative data collection</td> </tr> <tr> <td>PE11</td> <td>Field organisation and quality control</td> </tr> <tr> <td>PE12</td> <td>Data entry, validation and transfer</td> </tr> <tr> <td>PE13</td> <td>Data management 1: Basic principles</td> </tr> <tr> <td>PE14</td> <td>Data management 2: Advanced applications</td> </tr> </tbody> </table> <p>There are also two optional sessions:</p> <p>PE15-16 offer an opportunity to revise key concepts in epidemiology and statistics that have been taught in EPM101 - EPM103. While sessions PE15-16 are optional, the key concepts they cover are considered to be fundamental to epidemiology, so that they may be assessed in the EPM103 exam.</p>	Session	Title	PE01	Module introduction and overview	PE02	Planning your study	PE03	Ethical issues in epidemiological research	PE04	Introduction to sampling methods	PE05	More complex sampling methods	PE06	Size of a study	PE07	Randomisation	PE08	Quantitative data collection 1: Questionnaires	PE09	Quantitative data collection 2: Other methods	PE10	Qualitative data collection	PE11	Field organisation and quality control	PE12	Data entry, validation and transfer	PE13	Data management 1: Basic principles	PE14	Data management 2: Advanced applications
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<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/October:</p> <p>Epidemiology Core Module DVD-Rom (EPM101/102/103/ 105)</p> <p><u>Software:</u> Stata EpiData (online download)</p> <p><u>Textbooks:</u> <i>Guide To Questionnaire Construction &amp; Question Writing</i> (Woodward, Chambers) <i>Essential Medical Statistics</i> (Kirkwood, Sterne) <i>Principles of Exposure Measurement in Epidemiology</i> (White, Armstrong, Saracci) – provided as e-book only <i>Field Trials of Health Interventions in Developing Countries - A Toolbox</i> (Smith, Morrow and Ross) – provided as e-book only.</p> <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>																														

<b>Teaching and learning methods</b>	<p>Learning is self-directed against a detailed set of learning objectives using the materials provided. In this module, our teaching methods differ somewhat to those used in EPM101 and EPM102, in that we expect students to do more reading around the topics that we teach, and to apply their epidemiological knowledge in a critical way. 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 paper-based materials which support the learning in the CAL sessions.</li> <li>• Participation in a group-based learning activity: the “Virtual Ethics Committee”.</li> <li>• Accessing academic support which is available from the module tutors through a web-based discussion forums and real-time sessions (using Blackboard Collaborate) in which students are encouraged to participate. Completing formative assignment(s) and reflecting on written feedback from module tutors.</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 (100%). If students fail the module overall, they are allowed one further attempt at the examination.</p>
<b>Assessment dates</b>	<p>Unseen written examinations for DL modules are held once a year, in June (including resits). 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 October, depending on date of registration) and work through the material until the start of the June examinations (although assessment submission deadlines which are earlier than this must be observed). The “Virtual Ethics Committee” sessions are run three times a year, in November, January and February.</p> <p>Students registering after September (continuing and individual module students only) 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 they 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) ≈ 110 hours</li> <li>• <b>Self-directed learning</b> (general reading around the subject, library, Moodle discussion forums) ≈ 10 hours</li> <li>• <b>Assessment, review and revision</b> ≈ 30 hours.</li> </ul>
<b>APPLICATION, ADMISSION AND FEES</b>	
<b>Pre-requisites</b>	<p><u>Epidemiology and Demography &amp; Health</u> students should have studied and have an understanding of both EPM101 <i>Fundamentals of Epidemiology</i> and EPM102 <i>Statistics with Computing</i> prior to studying this module.</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>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.</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. 200 students register for the module per year.
<b>Student selection</b>	<p>This module is compulsory for students registered on the DL PG Certificate/PG Diploma/MSc Epidemiology programme and an elective module for students on the DL PG Diploma/MSc Demography &amp; Health programmes. Alternatively, students may register for this as an "individual module".</p> <p>This module is also open to LSHTM research degree students via the mixed mode study option.</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</li> </ul> <p><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</i></p>

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.)

- Registration deadline: 30 September (new students);
- Registration deadline: 31 October (continuing students and those taking the module as an individual module).

**Please note:** The academic year starts 1 October. Students who register after 1 October should note that module welcome and Collaborate sessions held in October are recorded, but they cannot request an extension to assignment submission deadlines or apply for an examination extenuating circumstance as a result of registering later than 1 October.

(In-house LSHTM research students wishing to study this module should note information given in the mixed mode study option links for DrPH/research degree students at <https://lshtm.sharepoint.com/Teaching-and-Support/Pages/taught-programmes-handbooks-regulations-policies.aspx>)

## ABOUT THIS DOCUMENT

**This module specification applies for the academic year 2017-18**

**Last revised/approved** 10/02/2017 by Emily Herrett

Further revisions revised 1/8/2017 by Anne Tholen

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