### Module Specification

#### GENERAL INFORMATION

<table>
<thead>
<tr>
<th>Module name</th>
<th>Practical Epidemiology</th>
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<tbody>
<tr>
<td>Module code</td>
<td>EPM103</td>
</tr>
<tr>
<td>Module Organiser(s)</td>
<td>Rosemary Green, Alison Price, Laurie Tomlinson</td>
</tr>
<tr>
<td>Contact email</td>
<td>The LSHTM distance learning programmes and modules are run in collaboration with the University of London. Enquiries may be made via their Student Advice Centre at: <a href="https://london.ac.uk/contact-us">https://london.ac.uk/contact-us</a> (Enquiries from 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>)</td>
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<tr>
<td>Home Faculty</td>
<td>Faculty of Epidemiology and Population Health London School of Hygiene &amp; Tropical Medicine <a href="http://www.lshtm.ac.uk/eph/">http://www.lshtm.ac.uk/eph/</a></td>
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<tr>
<td>Level</td>
<td>This module is at Level 7 (postgraduate Masters level) of the QAA Framework for Higher Education Qualifications in England, Wales &amp; Northern Ireland (FHEQ).</td>
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<tr>
<td>Credit</td>
<td>LSHTM award 15 credits on successful completion of this module.</td>
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<tr>
<td>Accreditation</td>
<td>Not currently accredited by any other body.</td>
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<tr>
<td>Keywords</td>
<td>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).</td>
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#### AIMS, OBJECTIVES AND AUDIENCE

**Overall aim**

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.

**Intended learning outcomes**

By the end of this module, students should be able to:

- Apply basic concepts of epidemiology and statistics to practical situations;
- Design procedures for identifying and selecting study participants;
- Identify and employ appropriate methods for the collection and/or management of relevant data
- Identify relevant ethical issues in a given study outline.

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.

**Target audience**

**Practical Epidemiology** 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.
The module includes sessions addressing the following topics:

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
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<tr>
<td>PE01</td>
<td>Module introduction and overview</td>
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<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>
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<td>PE05</td>
<td>More complex sampling methods</td>
</tr>
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<td>PE06</td>
<td>Size of a study</td>
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<td>PE07</td>
<td>Randomisation</td>
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<tr>
<td>PE08</td>
<td>Quantitative data collection 1: Questionnaires</td>
</tr>
<tr>
<td>PE09</td>
<td>Quantitative data collection 2: Other methods</td>
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<tr>
<td>PE10</td>
<td>Qualitative data collection</td>
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<tr>
<td>PE11</td>
<td>Field organisation and quality control</td>
</tr>
<tr>
<td>PE12</td>
<td>Data entry, validation and transfer</td>
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<tr>
<td>PE13</td>
<td>Data management 1: Basic principles</td>
</tr>
<tr>
<td>PE14</td>
<td>Data management 2: Advanced applications</td>
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</table>

There are also two optional sessions:

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.

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

**Software:**
- Stata
- EpiData (online download)

**Textbooks:**
- *Guide To Questionnaire Construction & Question Writing* (Woodward, Chambers)
- *Essential Medical Statistics* (Kirkwood, Sterne)
- *Principles of Exposure Measurement in Epidemiology* (White, Armstrong, Saracci) – provided as e-book only
- *Field Trials of Health Interventions in Developing Countries - A Toolbox* (Smith, Morrow and Ross) – provided as e-book only.

In addition to the materials above, students are given access (from early October) to

i) the LSHTM Virtual Learning Environment, Moodle, which contains the key EPM103 learning material in the form of Computer Assisted Learning (CAL) sessions as well as resources such as discussion forums and supplementary programme materials, and

ii) the LSHTM online library.
### Teaching and learning methods

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:

- Reading and reflecting on CAL (computer-assisted learning) materials which introduce, explain and apply the principles and methods covered in the module.
- Reading and reflecting on other resources which support the learning in the CAL sessions.
- Participation in a group-based learning activity: the "Virtual Ethics Committee".
- Accessing academic support which is available from the module tutors through the onlinediscussion forums and real-time sessions (using Collaborate Ultra) in which students are encouraged to participate.
- Completing formative assignment(s) and reflecting on written feedback from module tutors.

### Assessment details

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.

### Assessment dates

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 https://london.ac.uk/current-students/examinations/examination-centres

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 nor the LSHTM have any control over the fee amount.

For students who are required to re-sit, or granted a deferral or new attempt at the written examination, the next examination date will be the following June.

### Language of study and assessment

English (please see ‘English language requirements’ below regarding the standard required for entry).

### TIMING AND MODE OF STUDY

#### Duration

Students may start their studies at any time from access/receipt of study materials (made available annually usually in 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.

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.
**Dates**  
Tutorial support for this module is available from the beginning of October through to the examination in June.

**Mode of study**  
By distance learning.

**Learning time**  
The notional learning time for the module totals 150 hours, consisting of:
- **Directed self-study** (reading and working through the provided module material) ≈ 110 hours
- **Self-directed learning** (general reading around the subject, library, Moodle discussion forums) ≈ 10 hours
- **Assessment, review and revision** ≈ 30 hours.

### APPLICATION, ADMISSION AND FEES

**Pre-requisites**  
Epidemiology and Demography & Health students should have studied and have an understanding of both EPM101 *Fundamentals of Epidemiology* and EPM102 *Statistics with Computing* [from 2018-19 this module is entitled *Statistics for Epidemiology*] prior to studying this module.

Students studying this module as an individual module must have basic epidemiological knowledge and skills equivalent to EPM101 *Fundamentals of Epidemiology* and EPM102 *Statistics with Computing* [from 2018-19 this module is entitled *Statistics for Epidemiology*].

Those wishing to study this module **must have regular access to the internet** to access, learning resources, 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](https://london.ac.uk/applications/costs-your-course/course-fees), 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 approx. 200 students register for the module per year.

**Student selection**  
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 & Health programmes. 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 [https://london.ac.uk/applications/costs-your-course/course-fees](https://london.ac.uk/applications/costs-your-course/course-fees) (click on the Postgraduate Fees 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 programmes and modules are managed by the University of London. To apply to take either a formal award (i.e. PG Certificate, PG Diploma or MSc) or an individual module, please see here: [https://london.ac.uk/courses/epidemiology](https://london.ac.uk/courses/epidemiology)

Key deadlines are as follows:
- Application deadline: 31 August
- Registration deadline: 30 September (new students)
- Registration deadline: 31 October (continuing students and those registering to study 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 self-enrol on the module's Moodle area.)

### ABOUT THIS DOCUMENT

This module specification applies for the academic year 2018-19

*Last revised/approved*  [11 / 04 / 2018], by [Clara Calvert]

Further revisions revised * [Date / Month / Year], by [Name]

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[www.lshtm.ac.uk](http://www.lshtm.ac.uk)