Module Specification

ABOUT THIS DOCUMENT

This module specification applies for the academic year 2018-19
Last revised: 19 Sept 2017 by Pat Doyle

London School of Hygiene & Tropical Medicine, Keppel St., London WC1E 7HT.  www.lshtm.ac.uk

GENERAL INFORMATION

<table>
<thead>
<tr>
<th>Module name</th>
<th>Basic Epidemiology</th>
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<tbody>
<tr>
<td>Module code</td>
<td>2001</td>
</tr>
<tr>
<td>Module Organisers</td>
<td>Professor Hannah Kuper, Dr Melissa Neuman, Dr Sujit Rathod</td>
</tr>
<tr>
<td>Contact email</td>
<td><a href="mailto:Hannah.kuper@lshtm.ac.uk">Hannah.kuper@lshtm.ac.uk</a>, <a href="mailto:sujit.rathod@lshtm.ac.uk">sujit.rathod@lshtm.ac.uk</a>, <a href="mailto:Melissa.neuman@lshtm.ac.uk">Melissa.neuman@lshtm.ac.uk</a></td>
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<tr>
<td>Home Faculty</td>
<td>Epidemiology &amp; Population Health</td>
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<tr>
<td>Level</td>
<td>Level 7 (postgraduate Masters 'M' 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>10 credits, within the larger 60-credit Term 1 super-module for each MSc programme. Credits are not awarded for this module individually, but only for successful completion of the Term 1 super-module.</td>
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<tr>
<td>Accreditation</td>
<td>Not currently accredited by any other body</td>
</tr>
<tr>
<td>Keywords</td>
<td>Epidemiology, Methods, Study Design, Interpretation</td>
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AIMS, OBJECTIVES AND AUDIENCE

Overall aim To provide an introduction to the basic concepts and methods of epidemiology

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

- Describe and apply measures of disease incidence and prevalence, and measures of effect (e.g. relative and absolute risk)
- Explain the basic principles underlying different study designs, including descriptive, ecological, cross-sectional, cohort, case-control and intervention studies
- Assess strengths and limitations of different study designs
- Identify problems interpreting epidemiological data: chance, bias, confounding and effect modification
- Be aware of criteria for assessing causality
- Describe criteria for the implementation of screening and ascertainment of the benefits of screening
- Assess advantages and disadvantages of different preventive strategies, including the use of measures of public health impact to anticipate their potential benefits

**Target audience**

**Compulsory module for:**
- MSc Medical Demography
- MSc Medical Statistics
- MSc Nutrition for Global Health
- MSc Public Health
- MSc Public Health for Eye Care
- MSc Reproductive and Sexual Health Research

*Students can opt to take Extended Epidemiology*

**Optional module for:**
- MSc Control of Infectious Diseases

**Recommended module for:**
- MSc Health Policy, Planning & Financing

### CONTENT

**Session content**
The module will include sessions on the following topics:

- Measures of disease frequency and effect
- Study design: descriptive, ecological, cross-sectional, cohort, case-control and intervention studies
- Interpretation of epidemiological studies: chance, bias, confounding, causality, effect modification
- Screening
- Preventive strategies, measures of public health impact and uses of routine data

### TEACHING, LEARNING AND ASSESSMENT

**Study resources provided or required**
Module information can be found on the Virtual Learning Environment (Moodle) containing information about each session and key references for the module. A recommended reading list is also provided but additional reading is not required to complete this module.

**Teaching and learning methods**
Teaching consists of ten half day sessions generally comprised of a one-and-a-half-hour practical session in which students work in small groups followed by a one-hour lecture in which the topic for the next practical session is presented. Methods will be illustrated using epidemiological data from high-income and low and middle income countries, investigations of communicable and non-communicable diseases, and aetiological and public health studies.

**Assessment details**
Mid-term and end-of-term multiple choice assessments will be used to assess progress. The grade obtained on the end-of-term assessment will count towards the final degree for MSc Medical Statistics students ONLY. Formal assessment of this module is by written examination.
### Assessment dates
- Written examinations will take place during the summer term in late May/early June.
- Resits/deferred attempts will take place during the summer term in late May/early June in the following academic year.

### Language of study and assessment
- English (please see 'English language requirements' below regarding the standard required for entry).

### TIMING AND MODE OF STUDY

<table>
<thead>
<tr>
<th>Duration</th>
<th>10 weeks at 0.5 days per week</th>
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<tbody>
<tr>
<td>Dates</td>
<td>Tuesday mornings</td>
</tr>
<tr>
<td>Timetable slot</td>
<td>Term 1</td>
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<tr>
<td>Mode of Study</td>
<td>The module is taught face-to-face in London. Both full-time and part-time students follow the same schedule.</td>
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### Learning time
- The notional learning time for the module totals 100 hours, consisting of:
  - Contact time ≈ 30 hours
  - Directed self-study ≈ 20 hours
  - Self-directed learning ≈ 20 hours
  - Assessment, review and revision ≈ 30 hours

### APPLICATION AND ADMISSION

<table>
<thead>
<tr>
<th>Pre-requisites</th>
<th>An understanding of basic algebra and numerical calculation is required.</th>
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<tr>
<td>English language requirements</td>
<td>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>.</td>
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<tr>
<td>Student numbers</td>
<td>300 (numbers may be capped due to limitations in facilities or staffing)</td>
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</table>
| Student selection | Basic Epidemiology is compulsory for all students on the MSc programmes in Medical Statistics, Nutrition for Global Health, Public Health, Public Health for Eye Care.  
Students of MSc Control of Infectious Diseases, MSc Demography and Health, and MSc Reproductive and Sexual Health Research must take either Basic Epidemiology or Extended Epidemiology.  
Full Registration (full participation) by LSHTM research degree students is required for this module.  
Preference will be given to LSHTM MSc students and LSHTM research degree students. Other applicants meeting the entry criteria will usually be offered a place in the order applications are received, until any cap on numbers is reached. Applicants may be placed on a waiting list and given priority the next time the module is run. |