



MODULE SPECIFICATION

Academic Year (student cohort covered by specification)	2021-22
Module Code	2001
Module Title	Basic Epidemiology
Module Organiser(s)	Professor Oona Campbell, Dr Giorgia Gon, Dr Jackie Cook, and Dr Kerry Wong
Faculty	Epidemiology & Population Health
FHEQ Level	Level 7
Credit Value	CATS: 10 ECTS: 5
HECoS Code	101335
Term of Delivery	Term 1
Mode of Delivery	For 2021-22 this module will be delivered online only. Where specific teaching methods (lectures, seminars, discussion groups) are noted in this module specification these will be delivered using an online platform. There will be a combination of live and interactive activities (synchronous learning) as well as recorded or self-directed study (asynchronous learning).
Mode of Study	This module will be taught online for the academic year 2021-22. Both full-time and part-time students follow the same schedule. We will offer a morning timeslot for practical tutorials preceded by Q&A sessions.
Language of Study	English.
Pre-Requisites	An understanding of basic algebra and numerical calculation is required.
Accreditation by Professional Statutory and Regulatory Body	None
Module Cap (indicative number of students)	None (Numbers may be capped at 400 due to limitations in staffing)
Target Audience	Compulsory module for: MSc Public Health MSc Public Health for Eye Care MSc Medical Statistics MSc Nutrition for Global Health



	<p>MSc Demography and Health¹</p> <p>MSc Reproductive and Sexual Health Research¹</p> <p>MSc Control of Infectious Diseases¹</p> <p>¹ <i>Students can opt to take Extended Epidemiology</i></p> <p>Recommended module for:</p> <p>MSc Health Policy, Planning & Financing</p> <p>This year, student doing the ICEMS short course module will also use recorded lectures and practicals, but with their own practical tutors</p>
Module Description	<p>This module introduces students to the basic concepts and methods of epidemiology to help them understand, interpret, and apply basic epidemiological methods. It is aimed at students who do not have any background in epidemiology.</p> <p>It is assessed through two formative multiple-choice tests which may also include some short answer questions and a summative assessment in June of the academic year.</p>
Duration	10 weeks at 0.5 days per week
Timetabling slot	Term 1
Last Revised (e.g. year changes approved)	August 2021

Programme(s)	Status
This module is linked to the following programme(s)	
MSc Reproductive and Sexual Health Research ¹	Compulsory
MSc Public Health (All Streams)	Compulsory
MSc Medical Statistics	Compulsory
MSc Nutrition for Global Health	Compulsory
MSc Public Health for Eye Care	Compulsory
MSc Demography and Health ¹	Compulsory
MSc Control of Infectious Diseases ¹	Compulsory
MSc Health Policy, Planning & Financing	Recommended
¹ <i>Students can opt to take Extended Epidemiology</i>	



Module Aim and Intended Learning Outcomes

Overall aim of the module

The overall module aim is to:

- Introduce the basic concepts and methods of epidemiology.

Module Intended Learning Outcomes

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

1. Describe and apply measures of disease frequency (e.g. incidence and prevalence), measures of effect (e.g. relative and absolute risk), and measures of disease impact (e.g. population attributable fraction)
2. Explain the principles, strengths and limitations underlying the following study designs: ecologic, cross-sectional, cohort, case- control and intervention/randomized controlled trials
3. Identify problems interpreting epidemiologic data: chance, bias, and confounding
4. Be aware of criteria for assessing causality
5. Assess advantages and disadvantages of different preventive strategies, including screening.



Indicative Syllabus

Session Content

The module will include sessions on the following topics:

- Measures of disease frequency, exposure effect and exposure impact
- Study design: ecological, cross-sectional, cohort, case-control and intervention studies
- Interpretation of epidemiologic studies: chance, bias, confounding, causality
- Prevention strategies, including screening
- Epidemiology in practice

Teaching and Learning

Notional Learning Hours

Type of Learning Time	Number of Hours	Expressed as Percentage (%)
Contact time	18.5	18.5
Directed self-study	31.5	31.5
Self-directed learning	20	20
Assessment, review and revision	30	30
Total	100	100

Student contact time refers to the tutor-mediated time allocated to teaching, provision of guidance and feedback to students. This time includes activities that take place in face-to-face contexts such as lectures, seminars, demonstrations, tutorials, supervised laboratory workshops, practical classes, project supervision as well as where tutors are available for one-to-one discussions and interaction by email. Student contact time also includes tutor-mediated activities that take place in online environments, which may be synchronous (using real-time digital tools such as Zoom or Blackboard Collaborate Ultra) or asynchronous (using digital tools such as tutor-moderated discussion forums or blogs often delivered through the School's virtual learning environment, Moodle).

The division of notional learning hours listed above is indicative and is designed to inform students as to the relative split between interactive and self-directed study.

Teaching and Learning Strategy

Teaching consists of ten half-day sessions generally comprised of a one-hour pre-recorded lecture in which the topic for the next practical session is presented, and two synchronous two-hour on-line activities: Q&A sessions and a one- and-a-half-hour practical session in which students work synchronously in small groups. Lectures will be made available a week prior to the associated practical session. We will illustrate methods using epidemiologic data from high-



Teaching and Learning Strategy

middle- and low-income countries, investigations of communicable and non-communicable diseases, and aetiologic and public health studies.

Assessment

Assessment Strategy

The assessment for this module has been designed to measure student learning against the module intended learning outcomes (ILOs) as listed above. Formative assessment methods are used to measure students' progress. The grade for summative assessment(s) only will go towards the overall award GPA.

The assessment for this module will be part of the summer exams which will be online.

Mid-term and end-of-term assessments will be used to assess progress (formative assessments). We have generally used multiple choice questions in previous years, but this year we may vary the end of term assessment to include short answer or paper-review. 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.

Written examinations will take place in early/mid-June.

Summative Assessment

Assessment Type	Assessment Length (i.e. Word Count, Length of presentation in minutes)	Weighting (%)	Intended Module Learning Outcomes Tested
Exam (Papers 1)	1 question in Paper 1	100	1 – 5
Timed Test (in-module test e.g. MCQ, short answer or paper review)*	20 Question MCQ	5	1-5

* For MSc Medical Statistics students only

Resitting assessment

Resits will accord with the LSHTM's [Resits Policy](#)

For students who are required to resit, or granted a deferral or new attempt, the task will be an examination the following academic year.



Resources

Indicative reading list

10 required lecture note readings are provided to students as PDFs on Moodle.

Recommended texts:

Webb P and Bain C. *Essential Epidemiology: An introduction for Students and Health Professional*. (4th Edition), Cambridge University Press. 2020.

Webb P and Bain C. *Essential Epidemiology: An introduction for Students and Health Professional*. (3rd Edition), Cambridge University Press. 2016.

Carneiro, I. *Introduction to Epidemiology* (3rd edition), Open University Press, 2017.

Other resources

Students who desire further depth, or additional revision material, are pointed to EPM101.

Teaching for Disabilities and Learning Differences

Students are provided with access to lecture notes, lecture slides, lecture recordings, and practical resources (practicals and solutions) via Moodle. The format of all these materials are in Word/PDF and PPT/PDF. All lectures are recorded and made available on Moodle at least one week prior to the scheduled practical dates

One recommended textbook (Carneiro) is available through LSHTM as an e-book. Suggestions for background reading are tailored to the students' prior training and learning needs. The module provides additional support for students with disabilities and learning differences in accordance with the Student Support Services section of the Student Handbook.

The module-specific site on Moodle provides students with access to lecture notes and copies of the slides used during the lecture prior to the lecture (in pdf format). All lectures are recorded and made available on Moodle at least 1 week in advance of the practical session. Materials posted on Moodle areas, including computer-based sessions, have been made accessible where possible. All students have access to "SensusAccess" software which allows conversion of files into alternative formats.

For students who require learning or assessment adjustments and support this can be arranged through the Student Support Services – details and how to request support can be found on the [LSHTM Disability Support pages](#).