MODULE SPECIFICATION

Academic Year (student cohort covered by specification)	2020-21
Module Code	EPM101
Module Title	Fundamentals of Epidemiology
Module Organiser(s)	Jenny Evans, Laura Oakley, Sujit Rathod
Contact	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: https://london.ac.uk/contact-us (Enquiries from London-based LSHTM MSc or research students regarding study of DL modules should be emailed to distance@lshtm.ac.uk)
Faculty	Faculty of Epidemiology and Population Health London School of Hygiene & Tropical Medicine http://www.lshtm.ac.uk/eph/
FHEQ Level	Level 7
Credit Value	**CATS:**15 **ECTS:**7.5
HECoS Code	101335 : 100473 : 100962
Mode of Delivery	Distance Learning
Mode of Study	Directed self-study, through online materials via the Virtual Learning Environment
Language of Study	English
Pre-Requisites	Note for the Epidemiology programmes students: students are encouraged to complete EPM102 at the same time as EPM101.
Accreditation by Professional Statutory and Regulatory Body	Not currently accredited by any other body.
Module Cap (Maximum number of students)	There is no cap on the number of students who can register for this distance learning module.
Target Audience	**Fundamentals of Epidemiology** is a core module for all students on the DL PGCertificate/PGDiploma/MSc Epidemiology and Demography & Health programmes. It can also be taken as an elective module by those studying the DL PG Diploma/MSc in Global Health Policy and as an "individual

	module" for those wishing to gain a basic understanding of epidemiology before deciding whether to take further training in this field. This may include clinicians, public health officials, nurses and other healthcare providers as well as those working indirectly in health such as medical journalists and scientific officers in government and industry.
Module Description	The module provides a solid introductory grounding in the design, analysis and interpretation of epidemiological studies and introduces epidemiological methods applied to public health.
Duration	Students may start their studies at any time from 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). Students registering after September (individual modules 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.
Last Revised (e.g. year changes approved)	March 2020

Programme(s) This module is linked to the following programme(s)	Status
PGCert/PGDip/MSc Epidemiology (Distance Learning - University of London Worldwide)	Compulsory
PGCert/PGDip/MSc Demography & Health (Distance Learning - University of London Worldwide)	Compulsory
PGDip/MSc Global Health Policy (Distance Learning - University of London Worldwide)	Elective

Module Aim and Intended Learning Outcomes

Overall aim of the module
The overall module aim is to: • introduce students to the basic ideas and methods of epidemiology.

Module Intended Learning Outcomes
Upon successful completion of the module a student will be able to: 1. Describe, calculate and interpret epidemiological measures 2. Identify the key principles and assess the relative merits of different epidemiological study designs 3. Discuss and evaluate key considerations in the design, conduct and interpretation of epidemiological studies 4. Identify the major potential sources of error in epidemiological studies and assess the implications of these sources of error 5. Apply epidemiological principles to the ascertainment of disease in populations.

Indicative Syllabus

Session Content

The module is expected to cover the following topics:

Session	Title
FE00	Overview of Fundamentals of Epidemiology
FE01	Introduction to epidemiological methods
FE02	The epidemiological focus: cases and populations
FE03	Measures of occurrence
FE04	Using routine data in epidemiology
FE05	Measures of effect
FE06	Measures of impact
FE07	Transmission of infection
FE08	Overview of study design
FE09	Confounding and effect modification
FE10	Standardisation
FE11	Bias
FE12	Measurement error: validity and reliability
FE13	From association to causation

Session Content	
FE14	Cross-sectional studies
FE15	Cohort studies
FE16	Case-control studies
FE17	Intervention studies
FE18	Ecological studies
FE19	Surveillance
FE20	Screening

Teaching and Learning

Notional Learning Hours

Type of Learning Time	Number of Hours	Expressed as Percentage (%)
Directed self-study	100	67
Self-directed learning	20	13
Assessment, review and revision	30	20
Total	**150**	**100**

Teaching and Learning Strategy
Learning is self-directed against a detailed set of learning objectives using the materials provided. The key learning methods are: • Reading and reflecting on the CAL materials which introduce, explain and apply the principles and methods covered in the module. • Reading and reflecting on provided materials which support the learning in the CAL sessions. This may include making use of the LSHTM online library resources. • Accessing academic support which is available from the module tutors through the web-based discussion forums and occasional 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

Assessment Strategy
Formal assessment of this module consists of a two-hour unseen written examination with 15 minutes additional reading/planning time (100%) in June. All five module learning outcomes will be assessed via this task. If students fail the module overall, they are allowed one further attempt at the examination.

Summative Assessment

Assessment Type	Assessment Length (i.e. Word Count, Length of presentation in minutes)	Weighting (%)	Intended Module Learning Outcomes Tested
Exam	2hrs 15mins	100	1 – 5

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

Resources

Indicative reading list
- Webb P, Bain C, Page A. *Essential Epidemiology: An introduction for Students and Health Professionals*. Cambridge University Press, 2017 (Third Edition).
- Buring JE. *Epidemiology in Medicine.* Lippincott Williams & Wilkins, 1987.
- Porta, M. (Ed.). A *Dictionary of Epidemiology*. Oxford University Press, 2014.
- Buck C, Llopis A. *The Challenge of Epidemiology: Issues and Selected Readings.* Pan American Health Org, 1988.
- dos Santos Silva I. *Cancer Epidemiology: Principles and Methods*. IARC, 1999.

Other resources

The Moodle Virtual Learning Environment (VLE) contains the key materials and resources for EPM101 as follows:
- Interactive study material, referred to as Computer Assisted Learning (CAL), which is the key learning material for the module. The CAL sessions are also available to download.
- Reading material (via the LSHTM online library)
- Discussion forums
- Assignments and Exercises
- Past examination papers and examiner reports.

The following textbook is provided: *Essential Epidemiology - An Introduction for Students and Health Professionals* (Bain & Webb) ISBN: 978-1107529151.

Moodle can be accessed from the first week of October, after module registration.

Teaching for Disabilities and Learning Differences

The module-specific site on Moodle provides students with access to the module learning materials, including a study guide and online reading list (containing both essential and recommended readings), and additional resources including supplementary exercises and optional lecture recordings. All materials posted up on Moodle areas, including computer-based sessions, have been made accessible where possible. The LSHTM Moodle has been made accessible to the widest possible audience, using a VLE that allows for up to 300% zoom, permits navigation via keyboard and use of speech recognition software, and that allows listening through a screen reader.

For students with special needs, reasonable adjustments and support can be arranged – details and how to request support can be found on the University of London Worldwide website at

https://london.ac.uk/applications/how-it-works/inclusive-practice-access-arrangements