

Subject to Lead College confirmation

Programme Specification MSc and Postgraduate Diploma in Epidemiology

Title and name of awards

Masters of Science in Epidemiology (MSc)
Postgraduate Diploma in Epidemiology

A student registered for the MSc degree in Epidemiology may also receive the award of the Postgraduate Diploma in Epidemiology provided they satisfy the requirements for that award.

Up to three individual modules can be taken as short courses.

Level of the programmes

The awards are placed at the following Levels of the Framework for Higher Education Qualifications (FHEQ):

MSc – Masters degree, Level 7 (formerly level 'M')
Postgraduate Diploma - 7 (formerly level 'M')

The FHEQ forms part of the academic infrastructure of the Quality Assurance Agency for Higher Education (QAA) in England and Wales.

Relevant QAA subject benchmarks group(s)

Not applicable

See the Quality Assurance Agency website for information.

Awarding body

University of London

Registering body

University of London, through the External System

www.londonexternal.ac.uk

Lead College

London School of Hygiene & Tropical Medicine (LSHTM)

Accreditation by professional or statutory body

Not applicable

Language of study and assessment

English

See also the Programme Regulations.

Mode of study

Students registered for the MSc degree or Postgraduate Diploma in Epidemiology study by distance learning.

Further details about student support are in the student handbook.

Students registered for the MSc who have been allowed to proceed to the Advanced modules may also be permitted to study up to two advanced modules by **blended learning** for an additional fee. Blended learning enables a student to combine study by distance learning with a period of full-time study at the London School of Hygiene & Tropical Medicine. There may be restrictions on the choice of Advanced Modules

Subject to Lead College confirmation

available, the period of time in which the study must be completed and the number of students who can register in this way.

Programme structures and requirements

The **MSc Epidemiology** consists of the following elements:

- Four compulsory Core modules
- Two compulsory Advanced modules
- Four Advanced modules selected from a list of options
- A compulsory additional examination paper (draws on material from all the Core modules)
- A compulsory Project report

Full details are in the Programme Regulations.

A student must be assessed in the Core modules *Fundamentals of Epidemiology* and *Statistics with Computing* in their first stage of study.

The Programme Director reserves the right to consider the appropriateness of a student's choice of Advanced modules and, with good reason may restrict the options chosen. Some modules are designed to be studied before others.

The **Postgraduate Diploma in Epidemiology** consists of:

- Four compulsory Core modules.

No exemptions from modules will be considered for either the Postgraduate Diploma or the MSc.

Details of credits and exemptions are in the Programme Regulations.

All applications for credit will be considered on a discretionary basis.

Students who undertake and pass individual modules (as short courses) may have these modules taken into account for credit towards the MSc or Postgraduate Diploma.

In order for an MSc student to proceed to the Advanced modules and the Project Report, or for a Postgraduate Diploma student to transfer registration to the MSc degree from the Postgraduate Diploma, a student will **normally** need to have passed all of the four Core modules (with at least a Grade Point Average (GPA) of 2.00) and received a recommendation from the examiners that they may proceed to the Advanced modules of the MSc. (**Note:** there are also rules about how many, and which GPA scores may fall below 2.00 and be condoned by higher GPA scores in other modules - refer to the Detailed Regulations). At the discretion of the Examiners, and provided certain rules have been met, students who have passed in three modules may be permitted to transfer.

Full details are in the programme Regulations.

Students progressing from a short course will be required to satisfy rules of progression for the MSc and/or the Postgraduate Diploma.

The maximum and minimum periods of registration, from a student's effective date of registration, are:

Full details are in the Programme Regulations.

	Minimum	Maximum
Postgraduate Diploma in Epidemiology	One year	Five years
MSc Epidemiology	Two years	Five years

Final results for the **MSc in Epidemiology** are calculated as follows:

See also the Programme Regulations.

$$\text{Final GPA} = [\text{Total GPA of the Core modules} + \text{Total GPA of Advanced modules} + (\text{Project} \times 3) + (\text{Additional Paper} \times 2)] \div 15$$

Subject to Lead College confirmation

The MSc is awarded with the following class of award Distinction, Pass or Fail as follows:

Final course GPA	Outcome
0-1.99	Fail
2.00-4.29	Pass
4.30-4.49	Consider distinction
4.50-5.00	Distinction

Final results for the **Postgraduate Diploma in Epidemiology** are calculated as follows:

$$\text{Final GPA} = [\text{Total GPA of the Core modules}] \div 4$$

The Postgraduate Diploma is awarded with the following class of award: Distinction, Pass or Fail as given in the table above.

Entrance requirements

An applicant must satisfy the relevant entrance requirements given in this section. In order to be considered for registration as an External Student, they must also submit an application in accordance with the procedures and deadlines given in the appropriate prospectus.

For the **MSc in Epidemiology**:

Either

(a) a second class honours degree, in health-related disciplines or in statistics or another appropriate subject, from a university or other institution acceptable to the University of London. Work experience in a health sciences/healthcare setting is desirable but not essential.

or

(b) an appropriate professional or technical qualification in a health-related field, which satisfies the University as a qualification equivalent to a second class honours degree, together with at least three years' relevant experience. All applications in this category will be considered on an individual basis.

For the **Postgraduate Diploma in Epidemiology**:

Either

(a) a degree from a university or other institution acceptable to the University of London. Work experience in a health sciences/healthcare setting is desirable but not essential.

or

(b) an appropriate professional or technical qualification, which satisfies the University as a qualification on the same level as a first degree. Work experience in a health sciences/health care setting is desirable but not essential.

For all applicants an advanced level of ability to work in English is required. Applicants may be required to pass or to have passed within the last five years, at the appropriate level, a test of proficiency in English acceptable to the University – for example a TOEFL score of 600 (or 250 in the computerised test) and a minimum of 5 in the TWE or a British Council (IELTS) overall score of 7 or over with a minimum of 7 in the written sub-test.

All students will be required to have regular access to the internet with minimum hardware requirements as set out in the Prospectus and Student Handbook. Students are responsible for ensuring adequate system maintenance. Students will also require a calculator.

The prospectus gives details of the application process, alternative qualifications that may be accepted and English Proficiency tests.

Students with special needs should refer to the Programme Regulations.

Subject to Lead College confirmation

Educational aims and learning outcomes of the programmes

These programmes aim to equip students with the knowledge and skills to make valuable contributions to both epidemiological research and public health. Epidemiological methods are used increasingly in medical research, public health practice and health care evaluation to investigate the causes of disease, and to evaluate interventions to prevent or control disease. These programmes are primarily aimed at those planning careers in epidemiological research, as well as academics in other health areas and other health professionals. They are also suitable for those who require an understanding of epidemiology, such as medical journalists and scientific officers in government and industry. Successful completion of the MSc may allow students to progress to a higher research degree.

The main **educational aims** of these programmes are to offer a challenging scheme of study invigorated by research, which advances students' ability to develop the academic and practical skills needed as an epidemiologist. It is intended that students will be encouraged to develop a range of transferable and subject specific expertise using their initiative and working out problems for themselves.

The programmes aim to:

- develop knowledge and understanding of the fundamental skills needed to become competent in epidemiology;
- enable students to understand developments in the field of epidemiology;
- encourage independent critical and evaluative skills that can be used to apply independent scientific judgement;
- teach students how to apply the conceptual and practical tools needed to initiate research
- facilitate self-development into professionally organized and interactive individuals by practising skills of selection, assimilation and communication.

The **learning outcomes** of the programmes are as follows:

Knowledge, understanding, intellectual and cognitive;

A student will be able to:

- demonstrate knowledge and understanding of epidemiological methods, and their application in a range of health-related issues;
- demonstrate knowledge of the main types of epidemiological study and recognize key issues with their use;
- identify the sources of error and bias in epidemiological studies and suggest strategies to deal with them;
- demonstrate skills in handling data and presenting quantitative results;
- manage computerized epidemiological data;
- evaluate critically studies conducted by others (in terms of the question, the design, the method, how it was conducted and how it was analyzed);
- choose appropriate designs for epidemiological studies (to limited extent only for PG Dip);
- develop detailed protocols for epidemiological studies (to limited extent only for PG Dip);
- carry out appropriate statistical analysis of epidemiological data and interpret results (to limited extent only for PG Dip);
- acquire and apply more advanced epidemiological skills relating to specific fields of interest (e.g. non-communicable / communicable diseases, human genetic epidemiology, advanced statistical skills) and depending on student choice (MSc only);
- carry out and write up a substantial independent piece of epidemiological work (MSc students only).

Transferable skills

A student will be able to:

- use problem solving skills in a range of situations;

Subject to Lead College confirmation

- use fluent and effective communication and discussion skills in a written context;
- have a capacity to handle ideas and scrutinize information in critical, evaluative and analytical ways;
- manage their own learning, including working effectively to deadlines.

A student who passes the core modules will have the essential introduction to a variety of methods, approaches and concepts in epidemiology. Students will have a sound grasp of the fundamentals of epidemiology, including key statistical principles and will be able to demonstrate knowledge of the practical aspects necessary for planning and conducting research. Core module students will also be able to demonstrate basic skills in writing research papers and searching and evaluating the scientific literature. MSc students will proceed to the advanced modules, building on the foundations learnt from the core modules. These students will learn how to design their own epidemiological research study, prepare a grant application and develop further statistical knowledge and skills needed to analyse and interpret data from the common forms of epidemiological studies. Students will then choose from a range of options which further knowledge in specific areas. MSc students will also apply the epidemiological skills they have learnt to a particular problem in an area of their own interest and produce a Project report.

Teaching, learning and assessment strategies

The programme is primarily taught using computer-assisted learning (CAL) via CD-ROM or paper-based subject guides. Each module is divided into sessions covering different topics. The sessions contain a number of elements designed to make students learning manageable and to check on the progress they have made. Each session would usually contain:

- **Aim** of the session
- **Learning objectives**
- **Activities** to further students' understanding and skills and assess what they have learnt
- **Feedback** which follows each activity, giving the correct or optimal answer to questions posed, or discusses issues that have been raised.
- **Summary** containing the key learning points of the session

The CAL material and subject guides are supported by 'readers' which contain copies of relevant articles. For statistical modules, a practical workbook of exercises is provided together with statistical software. Selected textbooks are provided also for all Epidemiology modules, complemented by recommendations for further reading.

Each Epidemiology module has at least one Formative Assignment (FA) for the students to complete. These do not count towards the final award but students are strongly encouraged to do these. The FAs give students an opportunity to i) apply their newly learnt knowledge and skills, thereby reviewing their progress and understanding, ii) highlight to tutors any difficulties relating to that topic, and iii) receive personal tutorial feedback on their work and their highlighted issues.

Students are encouraged to communicate with tutors and fellow students via a web-based discussion forum. In this way, students may ask questions, engage in dialogue, and develop and negotiate conclusions with others, which are key components in the acquisition of knowledge, understanding and transferable skills.

Advice and practical information such as study techniques, planning and preparation for assessment is available in the student handbook. Students manage their own learning.

Each module that is assessed by unseen written examination will consist of questions structured to allow students to demonstrate that they have acquired appropriate knowledge and understanding. The way that students manage data, solve problems, evaluate ideas and the organizational skills they use to structure answers allows the standard of intellectual and transferable skills to be assessed.

Some modules are assessed either wholly or partially by a written assessed assignment (AA). The AA aims to give students an opportunity to apply the skills taught in the module in a directly practical way that often reflects a real-life scenario. In some

Subject to Lead College confirmation

assignments, group work is involved while in others there is the opportunity to explore issues in depth, encouraging independent thinking and judgement.

The additional examination paper (MSc only) draws on the material from all the core modules and is taken at the time when students enter to complete the degree. It assesses not only the knowledge and understanding of the core modules but also provides an opportunity for students to draw on material they have covered in advanced modules and in their professional practice in order to demonstrate depth of understanding.

MSc students will also submit a Project Report. This will allow students to develop and deepen epidemiological concepts and skills learnt during the course. Students will be able to apply epidemiological skills to a real-life issue, and to analyse data or literature in depth. It also allows students to demonstrate independent research skills and their ability to think critically and develop original ideas. It will also test the student's ability to plan, and to produce an extended piece of writing clearly and coherently.

Assessment criteria for the programme will indicate the level at which these skills have been achieved.

Assessment methods

Each **Core** module (MSc and Postgraduate Diploma) will be assessed by one two-hour unseen written examination, with the exception of *Writing and reviewing scientific papers* which will be assessed by a two-part written assignment.

Each **Advanced** Epidemiology module (MSc only) will be assessed by one two-hour unseen written examination and a written assignment (with the exception of *Study design: writing a grant application*) the mark awarded for each module will be weighted 70:30 (examination: assignment).

Study design: writing a grant application will be assessed by a written assignment consisting of a full application to a funding body.

The **additional examination paper** (MSc only) will be assessed by one three-hour unseen written examination which draws on material from all the core modules and is taken at the time the students enter the examination to complete the degree.

The **Project report** (MSc only) will be assessed by submission of one written report of 4000-10000 words. It must be submitted in the final year of the degree.

Written examinations are held at established centres worldwide. They take place on one occasion each year, normally commencing in June.

Student support and guidance

The following summarises the support and guidance available to students:

- Study materials for each module studied are delivered via CD-ROM or paper based. Statistical software is supplied for certain modules.
- Readers - containing copies of relevant articles etc.
- For statistical modules, a practical workbook of exercises is provided together with statistical software.
- Selected textbooks.
- Written tutorial feedback on set assignments.
- Web-based discussion forum supervised by tutors (may be accessed by email also) Students may alternatively email in academic queries for forwarding to tutors if they do not wish to use the discussion forum.

Full details of the assessment and the scheme of award are in the Programme Regulations.

Further information on support and guidance is in the student handbook.

Subject to Lead College confirmation

- Student Support Administrators (SSAs) are available to offer help and advice on administrative matters. Course Directors are also available for students to contact for general academic queries relating to the course and their study progress.
- Student handbook: This provides guidance on all aspects of the programme. It includes background information about the programme, advice on getting started, studying as a distance learner and organising study time, a description of the resources and course materials available and how to access them, networking and support issues, procedures for assessment and examinations, including course deadlines.
- Programme Regulations.
- Past examination papers and Examiners' commentary which provide generic feedback from assessment.
- University of London library - registered students may use the resources located within the Senate House library (for a small additional fee).

Quality evaluation and enhancement

The External System is a partnership between the central University and individual Lead Colleges/ Consortia. Agreed systems are in place to assure the quality of the programme development, delivery, management, systematic monitoring and ongoing review and enhancement of all External programmes. The policies, partnerships and systems are defined within our key documents: The Quality Framework, the Quality Assurance Schedules, Guidelines for Examinations and Programme Regulations.

Quality assurance arrangements are not static and enhancements will be made as necessary to ensure that systems remain effective and rigorous. For details on the current system-wide quality assurance procedures refer to:

http://www.londonexternal.ac.uk/quality/acad_inf/index.shtml

Parity of Award Standards

The central University Regulations state that "candidates granted degrees and other awards shall have attained the same academic standard irrespective of mode or place of study or examination".

- Every programme of study is developed and approved by a Lead College, or Consortia, to the same standards and requirements as would be applied in the Lead College(s);
- Learning materials are written and examinations are set and marked by academic staff employed or chosen by the Lead Colleges, who are required to apply the University's academic standards.

For further information please refer to: <http://www.londonexternal.ac.uk/quality/>

Review and Evaluation Mechanisms

- Annual programme reports are prepared in order to enhance individual programmes and to plan ahead;
- Periodic programme reviews are conducted on a 4-6 year cycle to review how a programme has developed over time and ensure that it remains current and up-to-date;
- Annual External Examiner reports are prepared by Independent External Examiners and confirm that a programme has been assessed properly and meets the appropriate academic standards;
- Thematic reviews report on specific issues to ensure that the External System is up-to-date in the light of developing knowledge and practice in the Higher Education sector;

Subject to Lead College confirmation

- Data on student numbers, examination performance, completion rates and other statistics are reviewed annually and feed into all systematic reporting within the External System.

Student Feedback Mechanisms

- Annual Student Experience Surveys collect programme level feedback according to the student lifecycle and the stages reached by students in their learning. In addition some Lead Colleges schedule their own modular or unit level surveys;
- An External programme's Virtual Learning Environment (VLE) provides the opportunity for informal feedback and discussion;
- External System committees and sub-committees include student membership where appropriate. Some External programmes recruit their own student representatives at the programme level.

For further information on the External System governance structure, including Terms of Reference, Agendas and Papers, please refer to the 'Committee Zone' at:
http://www.londonexternal.ac.uk/quality/comte_zone/index.shtml

This Programme Specification is presented in support of our commitment to the nationally agreed reference points for assuring the quality and standards of higher education, known as the Academic Infrastructure. Further information can be found at:
<http://www.qaa.ac.uk/academicinfrastructure/default.asp>