PROGRAMME SPECIFICATION

1. Overview

Programme Title	MSc Medical Statistics
Academic Year	2027-28
Cohort Entry Points	Annually in September
Programme Director	Melissa Neuman
Awarding Body	London School of Hygiene & Tropical Medicine
Teaching Institution	London School of Hygiene & Tropical Medicine
Faculty	Epidemiology and Population Health
Length of Programme	Full time Taught Masters programmes: 12 months Part time/split study Taught Masters programmes: 24 months
Mode of Delivery	Intensive
Maximum period of registration	Full-time 3 years/Part-time 5 years
Language of Study	English
Entry Requirements	Please refer to the specific programme entry requirements here
Award Titles	Master of Medical Statistics Exit Awards: Postgraduate Diploma in Medical Statistics (120 credits) Postgraduate Certificate in Medical Statistics (60 credits)
Total Credits	**CATS:** 180 **ECTS:** 90
Accreditation by Professional Statutory and Regulatory Body	Royal Statistical Society (RSS)

Relevant PGT QAA Benchmark Statement and/or other external/internal reference points	https://www.qaa.ac.uk/docs/qaa/sbs/mathematics-statistics-and-operational-research-sbs-the-basics-23.pdf
Framework for Higher Education Qualifications Level (FHEQ)	Level 7
Re-sit Policy	https://www.lshtm.ac.uk/sites/default/files/academic-manual-chapter-08a.pdf
Extenuating Circumstances Policy	https://www.lshtm.ac.uk/sites/default/files/academic-manual-chapter-07.pdf
Date of Introduction of Programme	1968 The programme in its current form was validated in 2025 and is regularly reviewed by the Royal Statistical Society.

2. Programme Description, Aims & Learning Outcomes

Programme Description
The programme trains students from a variety of academic backgrounds to work as statisticians in various sectors including higher education, contract research organisations, the pharmaceutical industry, central government and national health services. It provides training in the theory and practice of statistics with special reference to clinical trials, epidemiology and clinical or laboratory research.
Educational aims of the programme
The aim of the programme – consistent with LSHTM's mission to improve health worldwide – is to train students from a variety of academic backgrounds to work as statisticians in various sectors. In this programme, students learn the fundamentals of probability, frequentist and Bayesian statistical inference, and a variety of statistical methods used to model data on medical and public health outcomes. All courses combine mathematical grounding with an opportunity to apply concepts in practice,

and students work closely with faculty members in hands-on small group sessions.

Programme Learning Outcomes

By the end of the programme, students will be expected to achieve the following learning outcomes – drawing on material taught across different elements and assessed in a variety of ways.

1. Select and apply appropriate study designs to address questions of medical relevance.
2. Select and apply appropriate statistical methods for analysing data arising from a range of sources to address research questions of medical relevance, including descriptive, predictive and causal questions.
3. Select and apply statistical analysis methods for analysing data of the type typically encountered in medical applications, including binary, categorical, count, quantitative data; survival data; hierarchical data; data affected by measurement error and missingness.
4. Use a range of statistical software packages to: organise and manage datasets; carry out statistical analysis; construct tables and figures; create programs to provide problem-specific solutions.
5. Interpret correctly the results of statistical analyses and critically evaluate the use of statistics in the medical literature.
6. Communicate effectively with other statisticians and the wider medical community, including the ability to present results of statistical analyses through written and oral presentations.
7. Understand the principles behind statistical methods to allow future adoption and appreciation of new methodology, to develop problem-specific solutions to new problems, and to provide a basis for the understanding of limitations and issues surrounding currently used methods.

Teaching and Learning Strategy

The programme is taught through a variety of teaching methods including: lectures, small group seminars, practicals, and group work with peers. All elements of the programme have specific learning objectives, with content designed to help students achieve these outcomes. Students are expected to learn through both directed and self-directed study.

Assessment Strategy

The programme is assessed through individual module assessments (which may include essays, other written coursework, short written exams, practical exams, group work, presentations or other methods), formal summer exams,

and a project report. Such tasks are designed to assess, via the most appropriate method, whether learning objectives have been met.

3. Programme Structure and features, modules, credit assignment and award requirements:

Full-time Masters	Term 1	Term 2/3	Term 3	Total Credits
Compulsory Modules	4	3	0	105
Recommended Modules	0	1	1	30
Project	0	0	1	45

Module information is correct at the time of publication, but minor amendments may be made subject to approval as detailed in Chapter 3 of the LSHTM Academic Manual. Elective modules listed are indicative and may change from year to year. https://www.lshtm.ac.uk/study/courses/changes-courses

Term	Slot	Module Code	Module Title	Module Type	Credits (CATS)
1	AB1	2031	Introduction to Statistical Computing	Compulsory	10
1	AB2	2033	Clinical Trials	Compulsory	10
1	AB1	2038	Foundations of Medical Statistics	Compulsory	30
1	AB2	2488	Concepts and Methods in Epidemiology	Compulsory	10
2	C1	2462	Statistical Models for Discrete Outcomes	Compulsory	15
2	C2	2497	Survival Analysis	Compulsory	15
2	D1	2465	Analysis of Hierarchical and Other Dependent Data	Recommended	15
2	D2	2496	Bayesian Analysis	Compulsory	15

3	E	2412	Advanced Statistical Methods in Epidemiology	Recommended	15
3	E	2450	Causal Inference and Missing Data	Recommended	15

Contact time

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 on-campus lectures, seminars, demonstrations, tutorials, supervised laboratory workshops, practical classes, project supervision and external fieldwork or visits, as well as where tutors are available for one-to-one discussions and interaction by email. Module contact time will be defined in the individual module specifications and provided to students at the start of their programme.

This definition is based on the one provided by the Quality Assurance Agency for Higher Education (QAA) Explaining contact hours (2011). Student contact time, together with time allocated for independent study and assessment, determines the total student study hours for a module or programme. Although there are separate hours allocated for each of these activities, they should always be clearly linked together to support effective learning.
The London School of Hygiene and Tropical Medicine (LSHTM) defines high quality contact time as structured, focused, purposeful and interactive.