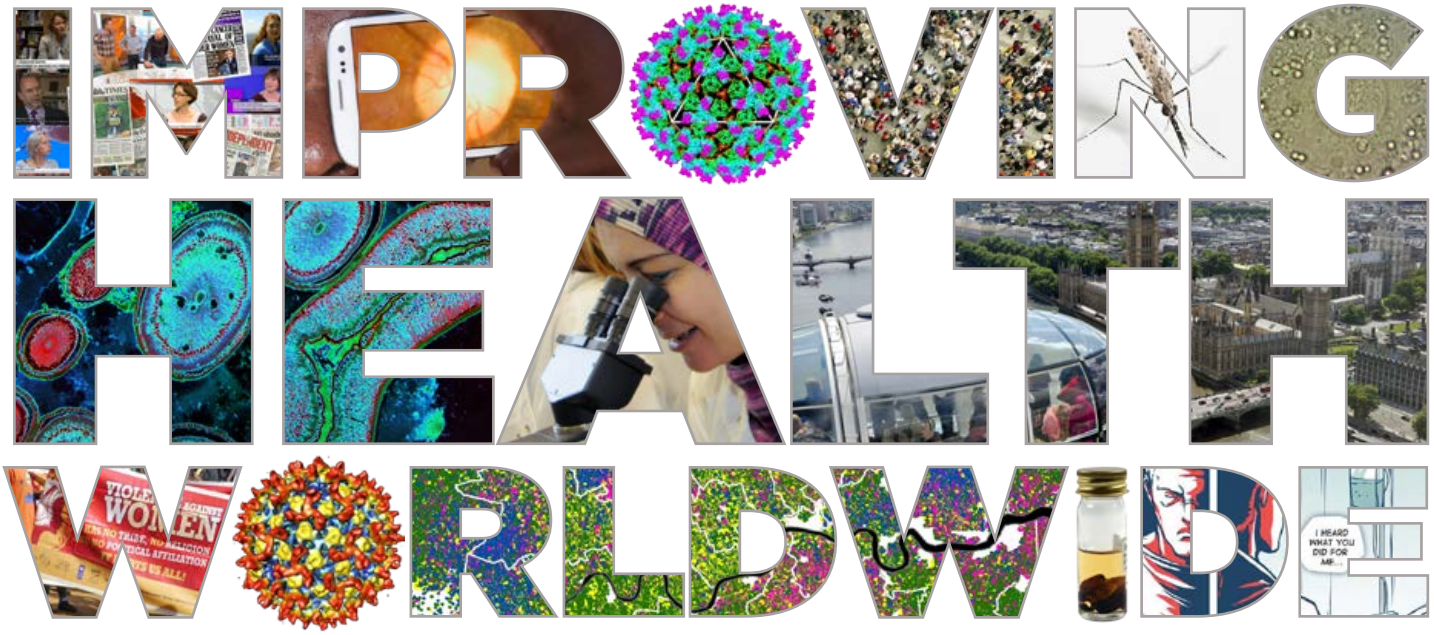
LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE



PROSPECTUS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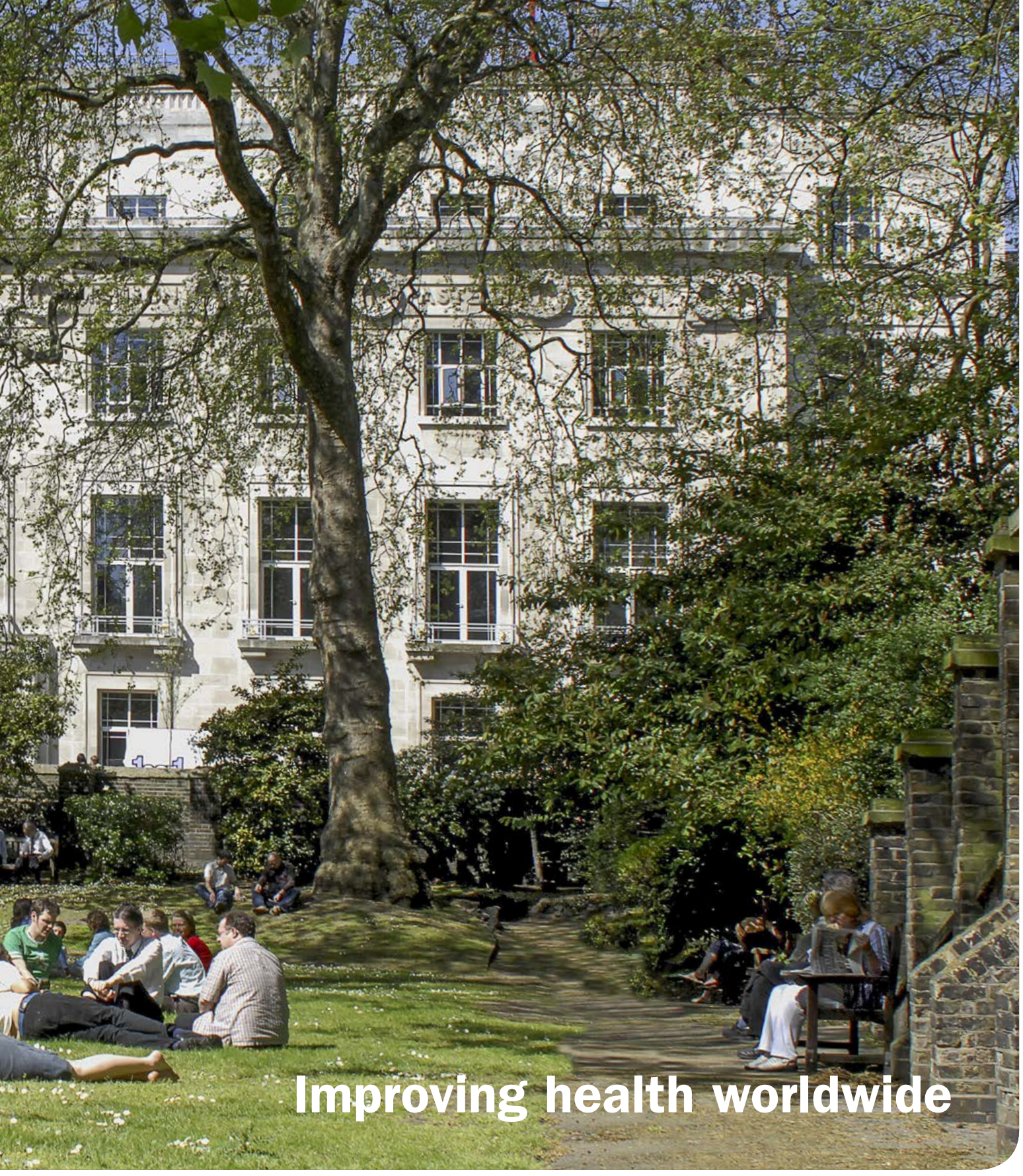

Improving health worldwide

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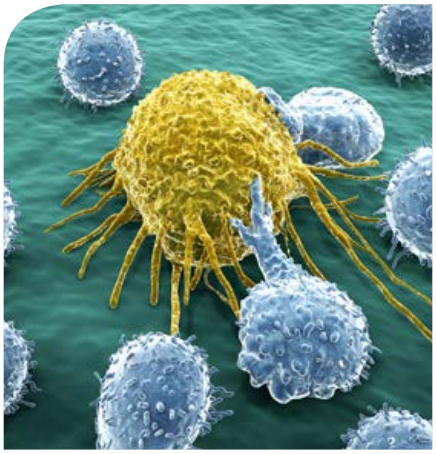


Click on the contents to jump to the page you want

All **web addresses, links** and **emails** are active.

Use the buttons in the running header to navigate through the prospectus.

QAA® UK Quality Assured Reviewed 2012

www.qaa.ac.uk/InstitutionReports/Pages/London-School-Hygiene.aspx

Introduction

Thank you for taking the time to read our prospectus. We hope that you find the content helpful and that it inspires you to join us as a student. We are always happy to talk to prospective students and their families, sponsors and colleagues. Please contact us if you would like further information.

How do I apply?

You can apply online by visiting the "How to Apply tab" on the relevant course webpage: *www.lshtm.ac.uk/study*

When are the key dates?

Last Monday in September: Orientation and Registration for all MSc and Research students.

September–December: Term 1.

January–March: Term 2.

First Wednesday in February: Open Day.

April–September: Term 3.

June: Master's Exams.

Who do I contact with questions?

Academic enquiries can be addressed to the course director or faculty o ffice (see course pages for details).

Enquiries regarding the application process should be addressed to Registry: *registry@lshtm.ac.uk*. For all other enquiries please contact *study@lshtm.ac.uk*

How can I find out more?

Our interactive online prospectus provides more detailed course descriptions and examples of research projects *www.lshtm.ac.uk/study.*

Virtual open day: *http://virtual.lshtm.ac.uk/*

School website – podcasts: *www.lshtm.ac.uk/news/audio.*

How much will it cost?

MSc Courses – see pages 26–50 and 116.

Research Training – see page 116.

The entrance to the School's main Keppel Street building.

Children in Kampong Speu, Cambodia during a summer project investigatingthe management of children's waste. Photo courtesy Molly Miller-Petrie

Our Mission

The London School of Hygiene & Tropical Medicine is a world-leading centre for research and postgraduate education in public and global health, with over 4,000 students and more than 1,000 staff working in over 100 countries. Our mission is to improve health and health equity in the UK and worldwide; working in partnership to achieve excellence in public and global health research, education and translation of knowledge into policy and practice.

Founded in 1899 by Sir Patrick Manson, the School has expanded in recent years at its two main sites on Keppel Street and Tavistock Place. We now have more than 1,000 London-based Master's and Research students, 3,000 studying Master's by distance learning and over 1,000 on short courses and continuous professional development.

The School's multidisciplinary expertise includes clinicians, epidemiologists, statisticians, social scientists, molecular biologists and immunologists. Research income has grown to over £79 million per year from national and international funding sources including the UK government, the European Commission, the Wellcome Trust and the Bill & Melinda Gates Foundation.

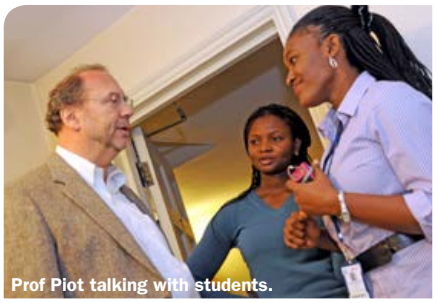
Our staff, students and alumni work in more than 180 countries in government, academia, international agencies and health services, and we work with partners worldwide to support the development of teaching and research capacity.

The School was named the world's leading research-focused graduate school in the Times Higher Education World Rankings (2013), and is also now among the world's top 100 universities by reputation (2014).

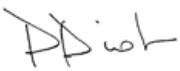
In May 2014, the School was ranked in the top 10 of all universities in the world for citation rate by the new EU-supported U-Multirank database, and fourth in the world for impact in medical sciences by the Leiden Ranking.

Improving health worldwide

The London School of Hygiene & Tropical Medicine is widely recognised as a world-leading school of public and global health, working closely with partners in the UK and worldwide to address contemporary and future critical health challenges.



Prof Piot talking with students.



Peter Piot
Director, London School of Hygiene & Tropical Medicine

Professor Baron Peter Piot became Director of the London School of Hygiene & Tropical Medicine in September 2010. He trained as a clinician and microbiologist, was part of the international team that discovered Ebola virus in Zaire in 1976, subsequently leading research on AIDS, women's health, and public health in Africa, with over 500 publications. He was the founding Executive Director of UNAIDS and Under Secretary-General of the United Nations.

We are committed to supporting health practitioners, clinicians, policy-makers, laboratory scientists and scientists who want to obtain a world-class qualification in aspects of public health, global health and tropical medicine, no matter where they are in the world.

Many of our staff are based overseas, and we have a strong commitment to partnership with institutions in low and middle income countries to support the development of teaching and research capacity.

Our research and teaching collaborations throughout the world are embedded in multidisciplinary collaborations which include clinicians, epidemiologists, statisticians, social scientists, molecular biologists and immunologists.

In recent years, our School has grown in reach and influence, and we now have more than 4,000 registered students on both London-based taught and research programmes, and studying by distance learning, in over 150 countries worldwide.

Our students include many people already working in the field as health professionals, practitioners and policy-makers. Our alumni go on to distinguished careers, and most stay in touch and are involved with our 20,000 strong alumni network with more than 30 chapters, and contribute to our shared mission of improving health worldwide.

We hope you will be inspired to join us at the School, and contribute to our shared mission of improving health worldwide.

A medical camp in a local village in Kenya by Boniface Oyugi and colleagues. Photo by Gregory Omondi.

The School's Library has one of the most comprehensive collections of books and journals in the field of international public health and tropical medicine in the world.

Studying and Learning

The School presents unrivalled opportunities for postgraduate study of the major disciplines related to public and global health, and seeks to offer challenge, choice and individual learning.

The postgraduate teaching and training programmes aim to contribute to an improvement in the health of individuals and populations, and to the advancement of medical and health sciences, both in the UK and internationally.

Training is provided through a range of taught Master's courses and research degrees, which can be studied on a full-time or part-time basis, and some through distance learning. In addition, a short study programme provides intensive advanced learning through a range of shorter courses.

The School is part of the University of London, and on successful completion of their studies, students gain a University of London degree: a passport to academic and professional recognition the world over.

Studying at the School gives students access to a wealth of knowledge, the expertise of the staff and the unparalleled benefits gained from professional networking with people from very diverse backgrounds and experiences.

Teaching and training are carried out by dedicated staff who are leaders in their fields and have considerable links with key universities and research institutions around the world, together with extensive academic, practical and international experience.

The fusion of staff and student experience provides a rich environment for students not only to learn from the staff, but, importantly, to learn from each other.

Our study opportunities play a key role in responding to the demands of public health professionals, clinicians, policymakers, academics and laboratory scientists for advanced and research training in the national and international medical and public health community. Alumni work in more than 180 countries and many hold prominent positions in health ministries, universities, hospitals and international organisations.

The School is very fortunate to welcome back previous students to carry out further training, undertake research, seek practical assistance, and, significantly, share their experiences. The School's Alumni Association aims to encourage and develop closer links between alumni and the School and to act as an information exchange network.

A brief history of the School

1897

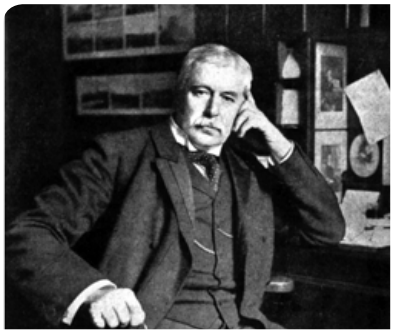
Sir Ronald Ross discovers the mosquito transmission of malaria. The School holds a large collection of Ross' archives.

1950

In 1950, Sir Richard Doll and Sir Austin Bradford Hill, working together at the School, publish the pioneering report linking smoking with lung cancer.

Doll later establishes the link between lung cancer and exposure to asbestos.

1890 1910 1930 1950



1899

Sir Patrick Manson establishes the London School of Tropical Medicine.

1901

Mosquito box used in an experiment by Sir Patrick Manson where infected mosquitoes were transported from Italy and fed on volunteers in London, who went on to develop malaria.

1963

Vaults under Gower and Malet Streets are converted to insectaries, which now house extensive breeding populations, including the world's longest-established experimental mosquito colonies.

Taking body measurement during fieldwork in India. Photo taken by Dilip Kumar.

2009

The School becomes the first academic institution in the world to be awarded the Gates Award for Global Health by the Bill & Melinda Gates Foundation.

We now work with over 80 partners across Africa, the Americas, Europe and Asia.

2011

The School is rated among the UK's top three universities for research (Research Assessment Exercise), and one of the top three in the world for collaborative research (Leiden rankings, December 2011).

TOP 3
UNIVERSITIES FOR RESEARCH IN THE UK

1970 1990 2010

1980

Publication of the influential 'Black Report' on health inequality.

Professor Jerry Morris (1910–2009), known as the 'inventor of exercise', is made CBE and awarded an International Olympic Medal for his work on exercise and cardiovascular disease.

1983

The School's first research on AIDS in the Medical Microbiology Department, surveying for antibodies for the HTLV virus in various primate species.

2010

Tavistock Place buildings open to house our Faculty of Public Health and Policy. We are continuing to improve our historic buildings and develop new world-class facilities, including improved laboratories as part of the Bloomsbury Research Institute, in partnership with University College London.

Studying in London

London is a global centre of learning and home to many great libraries, museums, archives, research institutes and learned societies. There are more international students here than in any other city in the world, and your experience here will be unrivalled in opportunities for study and enjoyment.

London's cultural wealth and diversity is reflected in its theatre, music, art and cuisine. The world is on show in the city's colourful street markets or many festivals, and hundreds of languages are spoken.

Bloomsbury

The School is in the heart of London, in Bloomsbury, with close links to nearby partner institutions of the University of London. As a cultural hub, Bloomsbury also houses the British Museum and the British Library and has a rich creative history, accommodating many great writers and artists, past and present.

Soho

London has a rich history in the study of health and illness. One of the fathers of modern epidemiology, John Snow, mapped and identified the source of a cholera epidemic in 1854, in the Soho area of the city. Today, after a colourful past, Soho is a centre of music, theatre and nightlife.

Hyde Park

London is famously green, with eight royal parks and many squares and green spaces in the city. These open spaces are easily reached and are close to a wealth of other attractions such as Buckingham Palace, Trafalgar Square, Harrods and the Royal Albert Hall.

River Thames

As one of the longest rivers in England, the Thames has long been the artery of London. As a route for trade it has always been an important part of the cityscape. It is now one of the cleanest urban waterways in Europe.

City of London

Crossing the Millennium Bridge from Tate Modern, the iconic dome of St Paul's Cathedral dominates the old City of London. Parts of the Roman Wall, the Tower of London and medieval churches still stand amid the gleaming financial headquarters of the 'Square Mile'.

East End

Charles Booth charted poverty in London's East End in the late 1800s. This work led to social reform that Britons reap the benefit of today. The East End is now as alive as ever and is one of the most ethnically diverse areas in the world, and a major cultural destination.

Borough Market

The School is well-placed for London's rich and eclectic world cuisine, with Caribbean, Chinese, Indian, Bangladeshi, Asian, Japanese and Middle Eastern among the most popular. Close to Tower Bridge and the Tate Modern art gallery, Borough Market showcases a vast array of high-quality local produce.

GETTING AROUND

The School has great transport links to the rest of London and the UK with five tube stations and three main railway stations nearby including St Pancras, with direct rail links to Europe. It is great for walking and cycling, with a network of bicycles for hire at many locations throughout the city. The bicycles are commonly referred to as 'Boris Bikes', nicknamed after the present Mayor of London, Boris Johnson.

Stay Connected

From social media to email to face-to-face contact, there are many ways for you to reach us and become part of our global community. Our communication channels allow you to connect with and hear from current students, staff and alumni of the School, ensuring you get all the information you need to join us.

We also have a worldwide network of chapters consisting of volunteers from our alumni and distance learning communities. Chapters regularly hold events in their local regions, which you are more than welcome to attend. You are also free to email a chapter with any questions you may have about studying at the School:

Angola - Luanda
lshtm.luanda@gmail.com

Australia - Sydney
lshtm.sydney@gmail.com

Bangladesh - Dhaka
lshtm.dhaka@gmail.com

Belgium - Brussels
lshtm.brussels@gmail.com

Cambodia - Phnom Penh
lshtm.phnompenh@gmail.com

Canada - Ontario
lshtmontarioalumni@gmail.com

Montreal
lshtm.montreal@gmail.com

East African Diploma in Tropical Medicine & Hygiene
Eadtmh.lshtm@gmail.com

Egypt - Cairo
lshtmegypt@gmail.com

France - Paris
lshtm.paris@gmail.com

Germany - Frankfurt
lshtm.frankfurt@gmail.com

Ghana - Accra
lshtmghana@gmail.com

Japan - Tokyo
lshtmjapan@gmail.com

Kenya - Nairobi
lshtm.alumni.nairobi@gmail.com

Mozambique - Maputo
lshtm.maputo@gmail.com

Nigeria - Abuja
abuja.lshtm@gmail.com

Pakistan - Islamabad
lshtm.islamabad@hotmail.com

Peru - Lima
lshtm.peru@gmail.com

Spain - Madrid
madridlshtm@googlemail.com

South Africa - Cape Town
lshtm.capetown@gmail.com

South Korea - Seoul
lshtm.seoul@gmail.com

Trinidad & Tobago
lshtmtrinidadtobago@gmail.com

Uganda - Kampala
lshtm.kampala@gmail.com

United Arab Emirates - Abu Dhabi
lshtm.abudhabi@gmail.com

USA -Atlanta
lshtm.atlanta@gmail.com

Boston
lshtmbos@gmail.com

Chicago
lshtm.chicago@gmail.com

Houston
LSHTMHouston@gmail.com

Los Angeles
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New Orleans
lshtm.neworleans@gmail.com

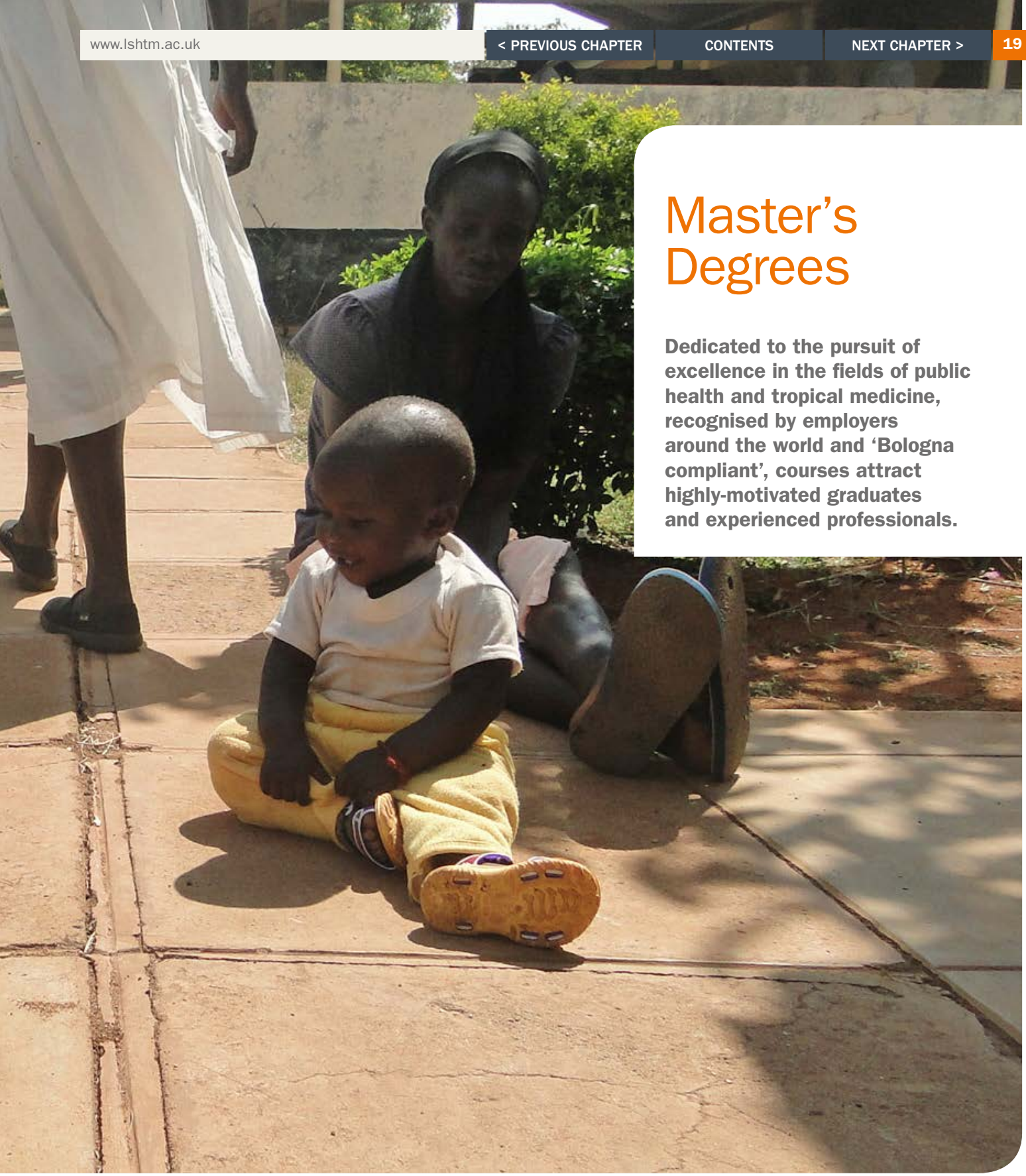
New York
lshtmNYC@gmail.com

San Francisco
lshtm.sanfrancisco@gmail.com

Washington, DC
lshtmalumdc@gmail.com


Stay Connected
Social Media
Events
Multimedia
Communications
Alumni Network
Public Events & Seminars
www.lshtm.ac.uk/events
Open Day
www.lshtm.ac.uk/study/openday
Fairs & Conferences
www.lshtm.ac.uk/study/visitus
Online Chats
www.lshtm.ac.uk/study/chat
News Blog
www.lshtm.ac.uk/newsblog
Email
study@lshtm.ac.uk
eNewsletter
www.lshtm.ac.uk/study/enews
International Chapters
www.lshtm.ac.uk/alumni/chapters
Alumni Events
www.lshtm.ac.uk/alumni/events
Alumni Facebook
www.lshtm.ac.uk/alumni/facebook

Patients at free medical camp in Got Agullu, Kenya.
Photo courtesy Boniface Oyugi.



Master's Degrees

Dedicated to the pursuit of excellence in the fields of public health and tropical medicine, recognised by employers around the world and 'Bologna compliant', courses attract highly-motivated graduates and experienced professionals.

Master's Degrees in London

- Control of Infectious Diseases
- Demography & Health
- Epidemiology
- Global Mental Health
- Health Policy, Planning & Financing
- Immunology of Infectious Diseases
- Medical Entomology for Disease Control
- Medical Microbiology
- Medical Parasitology
- Medical Statistics
- Molecular Biology of Infectious Diseases
- Nutrition for Global Health
- One Health (Infectious Diseases)
- Public Health
  - Environment & Health stream
  - Health Economics stream
  - Health Promotion stream
  - Health Services Management stream
  - Health Services Research stream
  - Public Health stream
- Public Health for Eye Care
- Public Health in Developing Countries
- Reproductive & Sexual Health Research
- Tropical Medicine & International Health
- Veterinary Epidemiology

Master's Degrees by Distance Learning

(MSc, Postgraduate Diploma and Postgraduate Certificate)

- Clinical Trials
- Epidemiology
- Global Health Policy
- Infectious Diseases
- Public Health

An Introduction to our Master's Degrees

In accordance with the School's mission, our postgraduate courses aim to contribute to an improvement in the health of individuals and populations and to the advancement of medical and health sciences, both in the UK and internationally, by:

- Providing relevant and varied learning experiences that are informed by cutting-edge research;
- Creating a stimulating and challenging interdisciplinary learning environment;
- Attracting students from different cultures and with different levels of experience who can benefit from the programme and contribute to the learning experience of others;
- Providing a supportive environment in which students from diverse backgrounds can be helped towards achieving their potential academically and professionally;
- Providing appropriate learning resources to enhance students' learning experience;
- Ensuring the range of courses, their mode of delivery and their curricula match the changing needs in public health and tropical medicine. The portfolio of courses covers the major components of public and global health, and offers challenge, choice and individual learning opportunities.

All courses aim to:

- Provide students with access to appropriate knowledge and skills from which to form the basis of competence in their subject and to enable them to maintain expertise through lifelong professional development;
- Promote students' use of the conceptual and practical tools needed to contribute to initiating research and understanding developments in their field;
- Provide a framework of critical evaluation skills that can be used to apply independent scientific judgement;
- Prepare students for a career in research or for further advancement in professional practice.

The School offers Master's courses taught in London and by distance learning. London-based MSc courses are offered full-time over one year or part-time over two years. Distance learning MSc courses may be studied over 2–5 years. With their modular credit-based structure, there are some opportunities to mix these study modes, giving students even more choice and flexibility in their studies. Further details on where this facility is available are on the School's website: *www.lshtm.ac.uk/study.*

Medical, dental or veterinary students may be eligible to take our Master's degrees as an intercalated degree. Students interested in exploring this possibility should talk to their undergraduate degree tutor to check eligibility.

We ensure a high standard of teaching on our courses in various ways. A strong management structure underpins this teaching programme to ensure that students' needs are met and that academic standards are maintained. The School has a Dean of Studies to help manage and develop the School's teaching programme.

A taught course director in each academic Faculty is responsible for all aspects of MSc teaching, and there are course directors for each MSc. The School has a student charter which sets out the responsibilities of the School and its students.

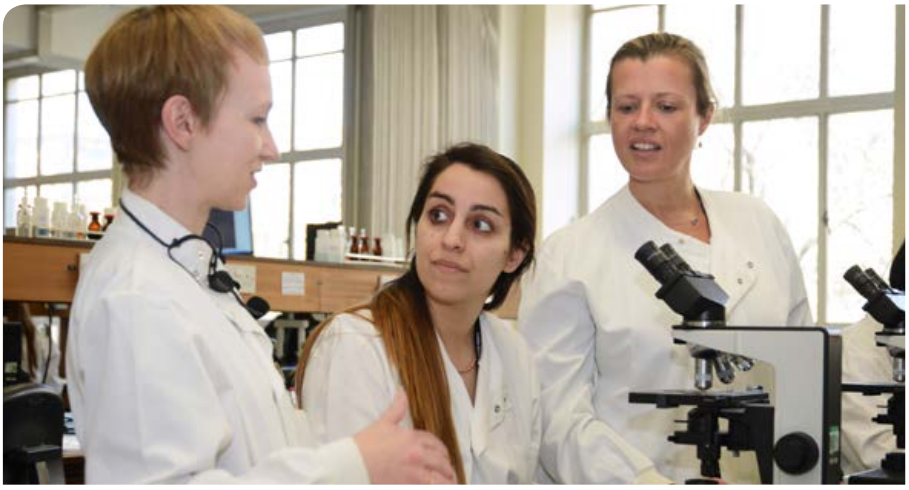
The student charter can be found at *www.lshtm.ac.uk/edu/qualityassurance.*

Each year, over 600 students from around 100 countries come to London to undertake a Master's degree at the School. The modular nature of the School's courses means that students have many opportunities to interact with colleagues on other Master's courses as well as their own.

Studying Master's Degrees in London

A range of teaching methods is used – formal lectures are a key part but they are only the starting point. For many students it is the small group activities and practical sessions that are particularly significant – where students often work together to tackle a problem, complete a project or to acquire new skills, with the class tutor acting more as a catalyst than as an instructor.

The wealth of experience students bring with them and the use of these teaching methods encourage valuable peer exchange. The School uses a virtual learning environment to complement and support face-to-face teaching. There are excellent library and IT facilities available, with training provided where necessary. Other skills are developed through giving presentations, writing essays or reports, undertaking projects and working in laboratories. Staff give students assistance in adjusting to this style of learning, without encroaching on their independence. All students in London have a personal tutor who gives individual advice on academic work and on any problems that may affect studies. Students benefit from the expertise of the staff together with extensive programmes of seminars and lectures given by senior international academics, policymakers, health service decision makers and health care professionals who regularly visit the School.



The structure of the Master's Degree in London

All London-based MSc courses (except those run jointly with other institutions) offer a one-week orientation period, including an introduction to studying at the School and key study skills.

This period is followed by a term of core material. The remaining two terms comprise core and elective modules chosen by students from a wide range. This is followed by project work at the end of the third term. A typical selection of modules is given on each MSc course page in this prospectus, though not all will be available in any given year and some may only be taken after consultation with the course director. For a more detailed list of available modules and programme specifications showing further details of the courses, visit the relevant course page on the website where a summary of the contents of these modules can also be found: *www.lshtm.ac.uk/study/masters*. For some courses, the project work may be undertaken outside the School. Students undertaking projects overseas will need to find additional funds up to approximately £1,500 to cover the costs involved. The School has some trust funds for which students can apply to help cover these costs. These pay towards the cost of travel and last year the School funded

over £70,000 of project travel. For reasons of safety, restrictions may apply to where a project can be undertaken. Assessment is by a combination of two formal written examinations in May/June, in-course assessment of various types and a project report. For some Master's courses there are also practical examinations.

Credit framework

We operate a credit system for our taught courses, consistent with the English and European (ECTS) credit systems. This allows other educational institutions and employers across Britain, the rest of Europe and beyond to more easily understand and recognise the amount and standard of study which our courses involve. Credits are awarded for successful completion of modules (assessed either specifically or through summer exams) and the project. 180 M-level credits (90 ECTS) are required in total for an MSc degree – normally breaking down as 60 credits from Term 1, 75 credits from modules in Terms 2 and 3, and 45 credits from the project in Term 3. Specific requirements are given on the pages for individual MScs. All credits obtained will be shown on final degree transcripts.

Collaborative teaching

The School takes great pride in the collaborative nature of its teaching and research, and four Master's courses are offered jointly with other London colleges. These are MSc Global Mental Health, taught with the Institute of Psychiatry, King's College London; MSc Health Policy, Planning & Financing, taught with the London School of Economics and Political Science; MSc One Health (Infectious Diseases) and MSc Veterinary Epidemiology, taught with the Royal Veterinary College. The structure of these Master's courses differs from that described earlier because of the joint nature of the teaching; further details are given in the relevant MSc-specific sections.

Modes of study – London-based Master's Degrees

	FULL-TIME	PART-TIME	SPLIT-STUDY
MSc Control of Infectious Diseases	■		■
MSc Demography & Health	■	■	■
MSc Epidemiology	■	■	■
MSc Global Mental Health	■		
MSc Health Policy Planning & Financing	■	■	
MSc Immunology of Infectious Diseases	■		■
MSc Medical Entomology for Disease Control	■		■
MSc Medical Microbiology	■		■
MSc Medical Parasitology	■		■
MSc Medical Statistics	■	■	
MSc Molecular Biology of Infectious Diseases	■		■
MSc Nutrition for Global Health	■	■	■
MSc One Health (Infectious Diseases)	■	■	
MSc Public Health	■	■	■
MSc Public Health for Eye Care	■		■
MSc Public Health in Developing Countries	■	■	■
MSc Reproductive & Sexual Health Research	■	■	■
MSc Tropical Medicine & International Health	■		■
MSc Veterinary Epidemiology	■		■

Course duration

All London-based MSc courses offer full-time study over one year. Some courses offer study split over two years in which students study full-time for part of a year, take a break and then return in the second year for the other part of their studies. Some MSc courses offer part-time study over two years, in which students attend the School at least two days each week during term-time. The MSc course pages indicate whether this form of part-time study is available for a particular course, as does the Modes of Study table (below left). Applicants should indicate on their application form which mode of study (full-time, part-time, split-study) they require. An explanation of the requirements for part-time study and split-study follows, and is also available at: *www.lshtm.ac.uk/study/*.

Part-time study and split-study

In addition to full-time study over one year, London-based MSc courses are offered on a part-time and split-study basis completed over two years. Students have the same privileges and access to facilities and expertise as full-time students of the School. To facilitate contact when not at the School, students should have good access to the internet and email. Students are allocated personal tutors and a nominated member of staff is available for students to contact with issues related to their part-time study and split-study.

Attending part-time over two years

Usually, students taking this option are working part-time. Feedback from students shows that this can be a challenging but also very satisfying way to study. It is important for both the student and their employer

The School takes great pride in the collaborative nature of its teaching and research, and four Master's courses are offered jointly with other London colleges.

to prepare fully for the time commitment involved. Such students complete the course module programme on a part-time basis from September to May each year. The normal pattern of study is to take half the modules in the first year and the remainder in the second year. Students need to be available to attend the School for up to four or five half-days every week during the course. As far as possible, the timetable is scheduled so that each module takes place over two-and-a-half consecutive days: Monday to Wednesday or Wednesday to Friday. The summer written examinations and the project report are normally taken in the second year of study.

Split-study

The normal pattern of study is attending full-time for modules in the first two terms in the first year and then undertaking the remainder of the course modules, the examinations and summer project in the second year. Alternative break points can be arranged subject to agreement from course staff. Students taking this option would be at the School from the end of September to February or March in their first year and studying from March until September in their second year. With formal teaching stopping at the end of May, attendance is only required for two or three months of the second year. Further time would then need to be committed to complete the examinations and the summer project. It is advisable to set aside a dedicated further three months for this. The School believes that this method of study offers greater flexibility to those students who find it difficult to come to London for a full year but for whom two six-month periods are more feasible.

Not all MSc courses offer both of these study approaches. We strongly advise that students considering part-time study or split-study contact the appropriate course director. The School can, on request, provide a letter to inform a student's employer of the time commitment required.

Terminology

1. **Reading week:** week during a university's term where no teaching takes place, generally so that students can catch up on their studies or prepare for tests. Students do not need to be at the School during this time. There are two reading weeks at the School: one in November and one in February. During the November reading week, the School usually runs a module fair, which is a one-day event when students can talk to course directors about their modules. A number of workshops also take place during this time such as refreshing IT skills. These workshops are optional and it is up to students to decide whether to attend or not.
2. **Term:** the academic year at the School is split into three terms – Autumn, Spring and Summer.
   - Autumn term (Term 1) is from the first day of the course (end of September) to December, when the Christmas holiday starts.
   - Spring term (Term 2) is from January to March, when the Easter holiday starts.
   - Summer term (Term 3) is from April to September, when the course ends. Classes will end around mid-May, giving students a few days to prepare for the exams.
3. **Examination period:** usually takes place at the end of May or early June.
4. **Summer project:** the summer project is the culmination of the Master's degree at the School, when students put into practice everything they learned during the year. It can take the form of a policy report, a literature review or a research project, and is usually due to be submitted in the first week of September. Each course has different requirements for its summer projects.

For more information, check: *www.lshtm.ac.uk/study/termdates*

Entrance requirements

Either a second-class honours degree from a recognised university in a relevant discipline, or a degree in medicine. Applications with an appropriate technical qualification and experience, or equivalent qualification, are also welcomed. Some MSc courses require specific skills or qualifications other than those mentioned, and these are stated on the relevant MSc course page.

Applications

Although there is no official closing date, we recommend applying as early as possible to avoid disappointment once courses become full. Applicants wishing to be considered for School Scholarships are advised to apply by 1 March. Late applications are always considered as long as there is space left on the course. Please apply online at *www.lshtm.ac.uk/study/*. The following supporting documents will need to be submitted with your application:

- A full official transcript of your studies (in English), giving details of courses taken and grades obtained;
- A full CV;
- Motivational statement outlining your reasons for applying;
- A valid IELTS certificate (if applicable).

Please submit your application online

MSc Control of Infectious Diseases

This course aims to bridge the disciplines of epidemiology, laboratory sciences and public health and the policy for training and retraining of students who wish to work directly on a multidisciplinary practical approach to the control of infectious diseases. The course aims to equip students with specialised skills that will facilitate a career in the control of infectious diseases, in health ministries, health departments, national or international disease control agencies, aid organisations or universities.

Contact

Course Director:
Professor Michael Miles
Email: *msccid@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME
Home	£8,300	£4,150
Overseas	£19,450	£9,725

TYPICAL CAREERS

Graduates from this course take up scientific or managerial positions in national and international government agencies and aid agencies, or join specific intervention or research projects.

OBJECTIVES

At the end of this course students should be able to: investigate the transmission of endemic and epidemic infections; select appropriate methods of control; design, implement and evaluate coordinated control methods; assess constraints of local public health delivery systems; manage available resources in the context of the control of infectious diseases, and focus their efforts on particular geographical regions or specific diseases.

TERM 1

After orientation, students take **two compulsory** modules: Basic Statistics and Introduction to Disease Agents & Their Control, which focus on the life cycle and characteristics of infectious disease agents according to their principal transmission routes; the principal intervention strategies used to combat infectious diseases; and examples of successes, partial successes and failures in intervention programmes against infectious diseases.

Recommended: Basic Epidemiology; Health Policy, Process and Power; Extended Epidemiology; Health Economics. An interdisciplinary approach is emphasised, taking account of the social, political and economic context in which health systems operate.

TERMS 2 AND 3

Students take one module from each timetable slot. The list below shows a selection of recommended modules. There are other modules which may be taken only after consultation with the course director.

Slot 1: Designing Disease Control Programmes in Developing Countries; Epidemiology & Control of Malaria; Economic Evaluation; Health Care Evaluation

Slot 2: Clinical Bacteriology 1; Conflict & Health; Population, Poverty and Environment; Statistical Methods in Epidemiology; Design & Analysis of Epidemiological Studies

Slot 3: Tropical Environmental Health; Vector Sampling, Identification & Incrimination; Control of Sexually Transmitted Infections

Slot 4: Epidemiology & Control of Communicable Diseases; Clinical Bacteriology 2

Slot 5: AIDS; Applying Public Health Principles in Developing Countries; Antimicrobial Chemotherapy; Integrated Vector Management; Mycology

PROJECT REPORT

All students complete a research project studying aspects of an intervention programme. Most students on this course undertake projects overseas.

COURSE DURATION

One year full-time or two years by split-study.

ENTRANCE REQUIREMENTS

See page 112 of this prospectus.

"My year at the School has been beyond my expectations due to the number of skills I have learnt, the welcoming and diverse people I have met, and opportunities that are open to me. The course offered me the perfect balance of public health and epidemiology allowing me to enrich my background in microbiology. As I am entering the work force I have begun to realize the power of the School's alumni network and how its numerous members can be influential when applying for jobs and helpful for learning about new and exciting opportunities."

Olivia Varsaneux
Canada

Read more about our students at:
www.lshtm.ac.uk/study/profiles

MSc Demography & Health

This course aims to offer a broad training in the theories and methods of demography and the population sciences and their application to health, social welfare and economic development. Emphasis is placed on studies of social, cultural and economic determinants and consequences of population change. This is Europe's only graduate course in demography with an emphasis on health. It is designed for those interested in acquiring a technical understanding of this subject and also of the interaction of health and population determinants.

Contact

Course Director: Ms Lynda Clarke
Email: *mscdh@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME
Home	£8,300	£4,150
Overseas	£19,450	£9,725

TYPICAL CAREERS

Graduates have careers in NGOs, public health, reproductive health programmes, health services research, policy, planning and academic fields.

OBJECTIVES

By the end of this course students should be able to: demonstrate advanced knowledge and understanding of scientific, evidence-based approaches to the study of population issues; critically assess and apply these approaches to inform development, health and population programmes; formulate research questions and use demographic and health data, and appropriate methods of analysis, to address them; identify causes and consequences of population change and relate these to underlying population dynamics; demonstrate advanced knowledge and understanding of demographic behaviour in social, economic and policy contexts; critically assess and apply findings of population studies to health and social policy; and demonstrate advanced knowledge and understanding of major population trends, including historical trends, in developed and developing countries.

TERM 1

All students take **compulsory** modules: Demographic Methods; Basic Epidemiology; Population Studies; Principles of Social Research; Statistics for Epidemiology and Population Health.

TERMS 2 AND 3

Students take one module from each timetable slot. The list below shows a selection of recommended modules. There are other modules which may be taken only after consultation with the course director. Where only one module is shown this is compulsory.

Slot 1: Designing Disease Control Programmes in Developing Countries; Health Care Evaluation; Research Design & Analysis; Sociological Approaches to Health

Slot 2: Family Planning Programmes; Conflict and Health; Design & Analysis of Epidemiological Studies; Population, Poverty and Environment; Statistical Methods in Epidemiology

Slot 3: Social Epidemiology; Current Issues in Safe Motherhood & Perinatal Health; Epidemiology of Non-Communicable Diseases; Modelling & the Dynamics of Infectious Diseases

Slot 4: Population Dynamics & Projections

Slot 5: Advanced Statistical Methods in Epidemiology; AIDS; Analysing Survey & Population Data; Proposal Development

PROJECT REPORT

All students complete a research project.

COURSE DURATION

One year full-time or two years part-time. Students can choose to attend part-time throughout both years or by split-study.

ENTRANCE REQUIREMENTS

See page 112 of this prospectus.

"I chose the course as it combined my interests in the social sciences, epidemiology and the study of populations, and had a thorough quantitative component, which is essential for working with social statistics and data analysis. What I like most about the course is the quality of teaching, which covers the theoretical components as well as the quantitative ones. Furthermore, thanks to the wide range of research experience of lecturers at the School, there are always opportunities to learn more on topics related to demography, such as epidemiology, public health, anthropology and economics."

Lawrence Sacco
Italy

Read more about our students at:
www.lshtm.ac.uk/study/profiles

MSc Epidemiology

This course aims to equip students with the knowledge and skills to make valuable contributions to epidemiological and medical research as well as public health in developed and developing countries. Epidemiological methods underpin clinical medical research, public health practice and health care evaluation to investigate the causes of disease and to evaluate interventions to prevent or control disease. Epidemiology is a key discipline for understanding and improving health worldwide. As a key subject for public health and quantitative research this course has a substantive statistical component.

Contact

Course Directors:
Dr Punam Mangtani and
Dr Dorothea Nitsch
Email: *mscepid@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME	FIELD TRIP
Home	£8,300	£4,150	£180
Overseas	£19,450	£9,725	£180

TYPICAL CAREERS

Graduates enter careers in medical research, academic medicine, public health and community medicine, epidemiological studies, drug manufacture and with government or NGOs.

OBJECTIVES

By the end of this course, students should be able to: demonstrate advanced knowledge and awareness of the role of epidemiology and its contribution to other health-related disciplines; choose appropriate designs and develop detailed protocols for epidemiological studies; enter and manage computerised epidemiological data and carry out appropriate statistical analyses; and assess the results of epidemiological studies, including critical appraisal of the study question, study design, methods and conduct, statistical analyses and interpretation.

TERM 1

All students take **compulsory** modules: Extended Epidemiology; Statistics for Epidemiology and Population Health; Clinical Trials; Epidemiology in Practice. In addition, up to two optional modules from the following: Molecular Epidemiology for Infectious Diseases; Demographic Methods.

TERMS 2 AND 3

Students take one module from each timetable slot. The list below shows a selection of recommended modules. There are other modules which may be taken only after consultation with the course director. It is also possible to mix modes of learning, taking up to two of the modules from the School's distance learning programme instead. Where only one module is shown this is compulsory.

Slot 1: Study Design: Writing a Study Proposal

Slot 2: Statistical Methods in Epidemiology

Slot 3: Epidemiology of Non-Communicable Diseases; Social Epidemiology; Spatial Epidemiology in Public Health; Control of Sexually Transmitted Infections; Tropical Environmental Health; Current Issues in Safe Motherhood & Perinatal Health; Medical Anthropology & Public Health; Applied Communicable Disease Control

Slot 4: Environmental Epidemiology; Epidemiology & Control of Communicable Diseases; Ethics, Public Health & Human Rights; Genetic Epidemiology; Globalisation & Health; Nutrition Related Chronic Disease

Slot 5: Advanced Statistical Methods in Epidemiology; AIDS; Principles and Practice of Public Health; Applying Public Health Principles in Developing Countries

RESIDENTIAL FIELD TRIP

This course has a compulsory two-day residential retreat outside London. There is also an optional field trip during the November Reading week.

PROJECT REPORT

Students complete a written research project on an approved topic.

COURSE DURATION

One year full-time or two years part-time. Students can choose to attend part-time throughout both years or by split-study.

ENTRANCE REQUIREMENTS

In addition to the requirements specified on page 112, students should show evidence of advanced numeracy skills. Experience in a health-related field is desirable.

"I chose the course as it combines well with sociology, and gives me a range of methodological tools from health science, which strengths my multi-disciplinary profile. The year is quite intense, but the quality and expertise given by internal and external speakers diminish this. Another aspect is the diversity within students and staff, which is an evident challenge. However awareness and respect from every party minimize this and converts it into a vital personal and educational experience – a strength that improves the atmosphere at Keppel Street, which must be attributed to the School."

Johan Lerbech Vinther
Denmark

Read more about our students at:
www.lshtm.ac.uk/study/profiles

MSc Global Mental Health

This course aims to provide people with the knowledge and skills to initiate, develop and oversee mental health policies and/or programmes in low-resource settings, and to conduct and critically evaluate research on global mental health. These skills and knowledge will make it possible for students to make valuable contributions in research, public health, policy and practice as they relate to the new discipline of global mental health. This is a joint programme provided by the School and King's College London Institute of Psychiatry.

Contact

Course Directors:
Dr Alex Cohen (LSHTM)
Dr Rosie Mayston (KCL-IoP)
Email: *mscgmh@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME
Home	£9,200
Overseas	£22,660

TYPICAL CAREERS

We anticipate that graduates will enter careers in national mental health policy and planning, epidemiological and mental health services research, and advisory and advocacy roles in governments, international agencies and non-governmental organisations.

OBJECTIVES

By the end of the course, students will be able to: demonstrate knowledge and understanding of the mental health challenges facing low-resource settings; devise locally appropriate and feasible strategies to reduce the burden of mental disorders; develop research protocols to investigate key issues in global mental health including epidemiological, intervention and policy-related questions; and apply research skills to monitor and evaluate mental health programmes.

STRUCTURE

Students **must** take **eight** modules, five of which are **compulsory**, and undertake a summer research project.

TERM 1

There is a one-week orientation period that includes an introduction to studying at the School and the Institute of Psychiatry and sessions on key computing and study skills. All students take the following **compulsory** modules: Fundamentals in Global Mental Health; Statistics for Epidemiology and Population Health; Principles of Psychiatric Research & Psychiatric Epidemiology.

TERMS 2 AND 3

Students take **one** module from each timetable slot. The list below shows a selection of recommended modules. There are other modules which may be taken only after consultation with the course director. Where only one module is shown this is **compulsory**.

Slot 1: Drugs, Alcohol & Tobacco; Health Care Evaluation; Health Promotion Approaches and Methods

Slot 2: Conflict & Health; Health Systems

Slot 3: Epidemiology of Non-Communicable Diseases; Medical Anthropology & Public Health; Social Epidemiology; Research in Women's Mental Health

Slot 4: Platforms of Care for Mental Disorders

Slot 5: Scaling up Packages of Care

PROJECT REPORT

All students complete a research project and write a 10,000 word report.

COURSE DURATION

One year full-time.

ENTRANCE REQUIREMENTS

An upper second-class honours degree from a UK university, or an overseas qualification of an equivalent standard, or an appropriate registrable qualification in medicine. Experience in a mental health-related field is desirable but not essential. Applications should be made to King's College London at: *www.kcl.ac.uk/prospectus/graduate/global-mental-health.*

"The course was the perfect fit for me, as it combined my background in neuroscience, my passion for global health and my volunteer experience in community development and mental health promotion. The programme is one of a few in the world, and the School is the epicentre of the field. All of the professors are passionate, inspiring and engaging, making for an incredible learning environment. My Master's has been the most fulfilling and enriching learning experience, and I hope to take this passion and skills into a career as a clinician researcher."

Nicole Cousins
Canada

Read more about our students at:
www.lshtm.ac.uk/study/profiles

MSc Health Policy, Planning & Financing

This course aims to develop critical analysis of issues within health policy, planning and financing and to enable students to devise appropriate health policy responses. Students come from a wide range of backgrounds. This is a joint programme provided by the School and the London School of Economics & Political Science (LSE). The course provides training relevant to countries at all levels of development, although participants are able to specialise.

Contact

Course Director: Dr Neil Spicer
Email: *mschppf@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME
Home	£9,180	£4,590
Overseas	£19,450	£9,725

TYPICAL CAREERS

Graduates enter careers in global health and national health policy and planning, research, advisory or advocacy roles in governments and international agencies.

OBJECTIVES

By the end of this course students should be able to: demonstrate knowledge and understanding of a diverse range of global and national health policies, including current and emerging trends, and also of disciplines relevant to the study of health policy, planning and financing (epidemiology, health economics and other social sciences); apply their knowledge and skills using a multidisciplinary approach to formulate, implement and evaluate health policies and plans; show written and verbal competence in communicating empirical evidence and in consolidating and critically appraising debates relevant to issues of health policy and health financing; demonstrate competence in key research and presentation skills, such as undertaking a literature search, a critical review of published literature or an evaluation of research findings.

STRUCTURE

Students must take **eight** modules, and complete a 10,000-word dissertation. To pass the degree students must take 4 modules from each institution making a total of **eight** modules as follows:

TERM 1

Students must take **compulsory** modules at each institution as follows:

- LSE: Financing Health Care;
- LSHTM: Health Services or Health Policy Planning and Financing.

Students must then take one **additional** module at each institution:

- LSE: Health Economics; Pharmaceutical Economics; Foundations of Health Policy;
- LSHTM: Health Policy, Process and Power; Basic Epidemiology; Issues in Public Health.

TERMS 2 AND 3

Students take **four** modules from LSE and LSHTM:

- For modules to be taken at LSE, any restrictions will be included in the programme specification, and may be adjusted by LSE;
- For modules to be taken at LSHTM, any restrictions will be included in the programme specification, and may be adjusted by the School.

Details of all available modules and the programme specification can be found on the School's website.

COURSE DURATION

One year full-time or two years part-time.

ENTRANCE REQUIREMENTS

In addition to the requirements specified on page 112, students should have a minimum of one year's experience in health policy or a public health-related field.

"After working as a research officer at the University Of Nairobi Institute Of Tropical Medicine, I felt the need to boost my skills in health economics and policy and the course was an idyllic choice. The School and LSE taught me to look at issues from different perspectives and think out of the box. My instructors, classmates and friends were a force to reckon with and made my stay worthwhile. It was a humbling and a life changing experience. I am looking forward to being a global health economics and policy consultant and then later engage in my country's leadership/politics."

Boniface Oyugi
Kenya

Read more about our students at:
www.lshtm.ac.uk/study/profiles

MSc Immunology of Infectious Diseases

This course aims to provide advanced theoretical knowledge and practical training in the immunology of infectious diseases through a comprehensive range of teaching and research methods. It equips students with a range of specialised knowledge and skills in applying scientific concepts, evaluating scientific data and carrying out modern immunological techniques. This is facilitated by the unique mix of interests in immunology, molecular biology, virology, bacteriology, parasitology, mycology and clinical medicine at the School.

Contact

Course Director: Dr Greg Bancroft
Email: *msciid@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME	FIELD TRIP
Home	£8,300	£4,150	£500
Overseas	£19,450	£9,725	£500

TYPICAL CAREERS

Graduates from this course go into research positions in academia and industry, and further training such as PhD study.

OBJECTIVES

By the end of this course students should be able to: demonstrate specialist knowledge and understanding of the basic principles of host immunity to infection against the diverse range of pathogens which confront human populations; apply this specialist knowledge to a range of practical skills and techniques, in particular modern molecular and cellular techniques for assessing immune responses to pathogens; critically assess, select and apply appropriate research methods to investigate basic immunological mechanisms and applied issues in the immunology of infection; critically evaluate primary scientific data and the published scientific literature; and integrate and present key immunological concepts at an advanced level, both verbally and in written form.

TERM 1

There is a one-week orientation period that includes an introduction to studying at the School, sessions on key computing and study skills and an introduction to major groups of pathogens, followed by **two compulsory** core modules: Immunology of Infectious Diseases and Analysis & Design of Research Studies. Sessions on basic computing, molecular biology and statistics are run throughout the term for all students.

TERMS 2 AND 3

Students take **one** module from each timetable slot. The list below shows recommended modules. There are other modules which may be taken only after consultation with the course director. Where only one module is shown this is **compulsory**.

Slot 1: Advanced Immunology 1

Slot 2: Advanced Immunology 2

Slot 3: Advanced Training in Molecular Biology; Clinical Immunology; Clinical Infectious Diseases 3

Slot 4: Clinical Infectious Diseases 4; Epidemiology & Control of Communicable Diseases; Molecular Biology Research Progress & Applications; Ethics, Public Health & Human Rights; Immunology of Parasitic Infection: Principles

Slot 5: AIDS; Antimicrobial Chemotherapy; Molecular Cell Biology & Infection; Mycology

RESIDENTIAL FIELD TRIP

Depending on availability, students have the opportunity to hear about the latest, most exciting aspects of immunological research at the British Society of Immunology Congress.

PROJECT REPORT

All students complete a research project.

COURSE DURATION

One year full-time or two years by split-study.

ENTRANCE REQUIREMENTS

See page 112 of this prospectus.

"Studying Immunology of Infectious Diseases at the School will be of huge benefit to my career because the course has given me a deeper insight into this particular branch of biological research, enabling me to pursue a more defined path in my scientific career. By focusing on particular aspects of immunology, and specific infections, I can learn better and apply what I have learned in a more efficient manner. If we each focus on one brick, all together we can build a house and be stronger."

Lou Herman
France

Read more about our students at:
www.lshtm.ac.uk/study/profiles

MSc Medical Entomology for Disease Control

This course aims to provide training in the theoretical and practical aspects of the biology and control of disease vectors as well as the human pathogens that they transmit, and to equip students with specialised skills to facilitate careers that demand knowledge of the molecular biology of infectious diseases. Introductory sessions cover all aspects of major vector-borne diseases and offer a thorough grounding in the systematics of medically important arthropods, the main processes regulating vector populations, and the biology of vector–parasite and vector–vertebrate interactions.

Contact

Course Director: Dr Mary Cameron
Email: *mscmedic@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME	FIELD TRIP
Home	£8,300	£4,150	£575
Overseas	£19,450	£9,725	£575

TYPICAL CAREERS

Graduates enter operational control programmes, applied basic research and academic fields.

OBJECTIVES

At the end of this course students should be able to: demonstrate advanced knowledge and understanding of the biology of vectors and intermediate hosts of human pathogens together with methods for their control; describe the biology, pathogenesis and diagnosis of parasitic infections in humans and relate these to human health and disease control strategies; demonstrate a range of specialised technical and analytical skills relevant to vectors and vector borne diseases; design and carry out a research project on biology or control of disease vectors, analyse and interpret the results and prepare a report including a critical literature review; design, undertake and evaluate vector control interventions; and show written and verbal competence in communicating scientific information.

TERM 1

There is a one-week orientation period that includes an introduction to studying at the School, sessions on key computing and study skills and an introduction to major groups of pathogens, followed by **three compulsory** core modules: Parasitology & Entomology; Analysis & Design of Research Studies and Critical Skills for Tropical Medicine. Sessions on basic computing, molecular biology and statistics are run throughout the term for all students.

TERMS 2 AND 3

Students take **one** module from each timetable slot. The list below shows recommended modules. There are other modules which may be taken only after consultation with the course director. Where only one module is shown this is **compulsory**.

Slot 1: Epidemiology & Control of Malaria; Designing Disease Control Programmes in Developing Countries; Molecular Biology & Recombinant DNA Techniques

Slot 2: Advanced Diagnostic Parasitology; Design & Analysis of Epidemiological Studies; Statistical Methods in Epidemiology

Slot 3: Vector Sampling, Identification & Incrimination

Slot 4: Vector Biology & Vector Parasite Interaction; Epidemiology & Control of Communicable Diseases; Molecular Biology Research Progress & Applications

Slot 5: Integrated Vector Management

RESIDENTIAL FIELD TRIP

There is a **compulsory** one week field course, after the Term 3 examinations, on vector and parasite sampling and identification methods.

PROJECT REPORT

Students complete a field or laboratory research project on an appropriate entomological topic.

COURSE DURATION

One year full-time or two years by split-study.

ENTRANCE REQUIREMENTS

See page 112 of this prospectus.

"The course offered a comprehensive overview of vector-borne diseases and the biology of vectors, and has definitely benefitted my career as a Medical Entomologist at the Caribbean Public Health Agency. My work focuses on giving technical advice to vector control units in twenty-one Caribbean countries as well as providing training courses in the microscopic identification of important mosquito species and methods of vector control. I love being able to help make vector control programmes in the Caribbean more effective so that they do not have to rely on assistance from external bodies."

Karen Polson
Trinidad and Tobago

Read more about our students at:
www.lshtm.ac.uk/study/profiles

MSc Medical Microbiology

This course aims to provide a comprehensive theoretical knowledge of medical microbiology, including the spread of micro-organisms, disease causation, diagnosis and/or treatment of pathogens of major significance to public health and advanced practical training in this diverse field. The increasing incidence of microbial infections worldwide is being compounded by the rapid evolution of drug-resistant variants and opportunistic infections by other organisms. The importance of genomics and molecular techniques in both diagnostics and the study of pathogenesis are reflected throughout the course.

Contact

Course Director: Dr Nick Dorrell
Email: *mscmm@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME
Home	£8,300	£4,150
Overseas	£19,450	£9,725

TYPICAL CAREERS

Graduates from this course go into careers related to medical microbiology in research or medical establishments and the pharmaceutical industry.

OBJECTIVES

By the end of the course students should be able to: demonstrate advanced knowledge and understanding of the nature of viruses, bacteria, parasites and fungi and basic criteria used in the classification/taxonomy of these micro-organisms; explain the modes of transmission and the growth cycles of pathogenic microorganisms; demonstrate knowledge and understanding of the mechanisms of microbial pathogenesis and the outcomes of infections; distinguish between and critically assess the classical and modern approaches to the development of therapeutic agents and vaccines for the prevention of human microbial diseases; demonstrate knowledge of the laboratory diagnosis of microbial diseases and practical skills; carry out a range of advanced skills and laboratory techniques, including the purification of isolated microbial pathogens, study of microbial growth cycles and analyses of their proteins and nucleic acids for downstream applications; and demonstrate research skills.

TERM 1

There is a one-week orientation period that includes an introduction to studying at the School, sessions on key computing and study skills and course-specific sessions, followed by **two compulsory** modules: Bacteriology & Virology and Analysis & Design of Research Studies. Recommended: Molecular Biology.

TERMS 2 AND 3

Students take **one** module from each timetable slot. The list below shows recommended modules. There are other modules that may be taken only after consultation with the course director.

Slot 1: Clinical Virology; Molecular Biology & Recombinant DNA Techniques

Slot 2: Clinical Bacteriology 1; Molecular Virology

Slot 3: Advanced Training in Molecular Biology; Basic Parasitology

Slot 4: Clinical Bacteriology 2; Molecular Biology Research Progress & Applications

Slot 5: Antimicrobial Chemotherapy; Mycology; Pathogen Genomics

PROJECT REPORT

Students complete a laboratory-based original research project on an aspect of a relevant organism.

COURSE DURATION

One year full-time or two years by split-study.

ENTRANCE REQUIREMENTS

See page 112 of this prospectus.

"The learning experience at the School has been fascinating. The principles of molecular biology have been brought to life not only through learning about viruses, but bacteria and parasites too. There are always challenges, but it is all part and parcel of hoping to tackle very real problems which affect millions of lives across the globe daily. Studying Medical Microbiology can help identify solutions in the form of drugs and vaccines, which can be implemented through various health initiatives. This is my personal drive."

Philip Hefford
United Kingdom

Read more about our students at:
www.lshtm.ac.uk/study/profiles

MSc Medical Parasitology

This course aims to provide core training in the theoretical and practical aspects of medical parasitology, covering the protozoan and metazoan parasites of humans and the vectors which transmit them, and equip students with specialised skills to enable them to pursue a career in research, control or teaching related to medical parasitology. Specialised modules are chosen from a list of diverse topics.

Contact

Course Director: Dr Mary Cameron
Email: *mscmedpara@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME	FIELD TRIP
Home	£8,300	£4,150	£575
Overseas	£19,450	£9,725	£575

TYPICAL CAREERS

Graduates enter fields ranging from diagnostics through to applied basic research and operational control to higher degree studies and academic/teaching-related positions.

OBJECTIVES

By the end of this course students should be able to: demonstrate detailed knowledge and understanding of the biology, life cycles, pathogenesis, and diagnosis of parasitic infections in humans and their relevance for human health and control; demonstrate detailed knowledge and understanding of the biology and strategies for control of the vectors and intermediate hosts of human parasites; carry out practical laboratory identification of parasite stages both free and in tissues and diagnose infections; demonstrate specialised skills in: advanced diagnostic, molecular, immunological, genetic, chemotherapeutic, ecological and/or control aspects of the subject; demonstrate the ability to design a laboratory or field-based research project, and apply relevant research skills; and show competence in communicating scientific findings.

TERM 1

There is a two-week orientation period that includes an introduction to studying at the School, sessions on key computing and study skills and an introduction to major groups of pathogens, followed by **three compulsory** core modules: Parasitology and Entomology; Analysis & Design of Research Studies and Critical Skills for Tropical Medicine.

TERMS 2 AND 3

Students take **one** module from each timetable slot. The list below shows recommended modules. There are other modules which may be taken only after consultation with the course director.

Slot 1: Advanced Immunology 1; Designing Disease Control Programmes in Developing Countries; Epidemiology & Control of Malaria; Molecular Biology & Recombinant DNA Techniques

Slot 2: Advanced Diagnostic Parasitology; Advanced Immunology 2; Design & Analysis of Epidemiological Studies; Statistical Methods in Epidemiology

Slot 3: Advanced Training in Molecular Biology; Vector Sampling, Identification & Incrimination

Slot 4: Vector Biology & Vector Parasite Interaction; Genetic Epidemiology; Immunology of Parasitic Infection: Principles; Molecular Biology Research Progress & Applications

Slot 5: AIDS; Antimicrobial Chemotherapy; Integrated Vector Management; Molecular Cell Biology & Infection

RESIDENTIAL FIELD TRIP

There is a **compulsory** one week field course, after the Term 3 examinations, on vector and parasite sampling and identification methods.

PROJECT REPORT

Students complete a research project based on a critical review of an approved topic, analysis of a collection of results or a laboratory study.

COURSE DURATION

One year full-time or two years by split-study.

ENTRANCE REQUIREMENTS

See page 112 of this prospectus.

"The School is a world-renowned institution, so when I wanted to take further studies in parasitology, the School was the first place I looked to. After reading up on the course, I was happy to see that it would be practical and lecture-based, with lots of hands-on experience. During the summer you undertake a project, which can be at the School or any other cooperating institution, either in the UK or abroad. This is an exciting possibility to put into practice what is taught on the course, and also network with world-leading researchers."

Tom Pennance
United Kingdom

Read more about our students at:
www.lshtm.ac.uk/study/profiles

MSc Medical Statistics

The course aims to train students from a variety of academic backgrounds to work as statisticians in various sectors including higher education, research institutions, the pharmaceutical industry, central government and national health services. It provides a training in the theory and practice of statistics with special reference to clinical trials, epidemiology and clinical or laboratory research.

Contact

Course Director: Dr Richard Silverwood
Email: *mscmedstats@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME
Home	£8,300	£4,150
Overseas	£19,450	£9,725

TYPICAL CAREERS

There is a shortage of well-trained medical statisticians and graduates from this course are in high demand. Graduates typically pursue careers in medical and epidemiological research, the pharmaceutical industry and various governmental institutions.

OBJECTIVES

By the end of this course students should be able to: select appropriate study designs to address questions of medical relevance; select and apply appropriate statistical techniques for managing common types of medical data; use various software packages for statistical analysis and data management; interpret the results of statistical analyses and critically evaluate the use of statistics in medical literature; communicate effectively with statisticians and the wider medical community, in writing and orally through presentation of results of statistical analyses; explore current and anticipated developments in medical statistics.

TERM 1

All students take the **compulsory** modules: Foundations of Medical Statistics; Introduction to Statistical Computing (Stata/SAS/R); Clinical Trials; Basic Epidemiology; Robust Statistical Methods.

TERMS 2 AND 3

Students take **one** module from each timetable slot. The list below shows recommended modules. There are other modules which may be taken after consultation with the course director. Where only one module is shown this is **compulsory**.

Slot 1: Generalised Linear Models

Slot 2: Statistical Methods in Epidemiology

Slot 3: Analysis of Hierarchical & Other Dependent Data; Epidemiology of Non-Communicable Diseases; Modelling & the Dynamics of Infectious Diseases

Slot 4: Survival Analysis and Bayesian Statistics

Slot 5: Advanced Statistical Methods in Epidemiology; Advanced Statistical Modelling

PROJECT REPORT

All students complete a research project usually consisting of analysing a set of data and writing a report, but methodological research can also be undertaken.

COURSE DURATION

One year full-time or two years part-time.

ENTRANCE REQUIREMENTS

Please see page 112 of this prospectus. The course is aimed primarily at graduates with a mathematically based first degree which includes some statistics. Graduates from other fields who have quantitative skills and some familiarity with statistical ideas may also apply.

"Enrolling in this interdisciplinary medical statistics course equipped me with skills in designing successful disease management programs, providing strategies of conquering major health problems through evidence-based research and measuring progress of the health systems using relevant statistical methods. Dedicated experts in the fields of epidemiology, clinical trials and public health within the School made my studies more enjoyable than expected. I am now looking forward to contributing in health research implementation through innovative approaches especially the use of local data to solving health problems.

Noel Patson
Malawi

Read more about our students at:
www.lshtm.ac.uk/study/profiles

MSc Molecular Biology of Infectious Diseases

This course aims to provide a thorough understanding and practical experience of molecular biology as it applies to infectious agents, particularly those that cause global health problems and problems in developing countries. It covers the application of molecular biology to studying all aspects of the agents, including their taxonomy, diagnosis, epidemiology and chemotherapy. It aims to equip students with the specialised knowledge and skills necessary for research, commercial or management careers that demand knowledge of molecular biology. The course has been successfully running at the School for over 20 years.

Contact

Course Director: Dr Hans Dessens
Email: *Johannes.Dessens@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME
Home	£8,300	£4,150
Overseas	£19,450	£9,725

TYPICAL CAREERS

Molecular biology forms a cornerstone of many modern scientific disciplines like biomedicine and bioengineering and has broad application in and impact on health, agriculture and the environment. This MSc benefits students pursuing careers throughout the public sector, industry, and academia. The course is very effective in transferring high-level skills into other sectors, either directly after graduation or after further research degree study.

OBJECTIVES

By the end of this course students should be able to: demonstrate knowledge and understanding of the principles underlying a wide range of molecular biological techniques and apply these techniques in practice; demonstrate specialist knowledge and skills in the areas of gene cloning, DNA sequencing, bioinformatics, genomics and studies of gene function; devise and critically assess molecular biological approaches to fundamental research, taxonomic studies, production of DNA probes and epidemiological tools, analysis of chemotherapeutic targets and vaccine development; and develop skills for further independent learning.

TERM 1

There is an initial orientation period that includes an introduction to studying at the School, and sessions on key computing and study skills. All students take the **compulsory** modules: Analysis & Design of Research Studies and Molecular Biology.

Recommended: Bacteriology & Virology; Immunology of Infectious Diseases; Parasitology & Entomology. Sessions on basic computing and statistics are run throughout the term for all students.

TERMS 2 AND 3

Students take **one** module from each timetable slot. The list below shows recommended modules. There are other modules which may be taken only after consultation with the course director.

Slot 1: Advanced Immunology 1; Epidemiology & Control of Malaria; Molecular Biology & Recombinant DNA Techniques

Slot 2: Advanced Immunology 2; Advanced Diagnostic Parasitology; Clinical Bacteriology 1; Molecular Virology

Slot 3: Advanced Training in Molecular Biology

Slot 4: Clinical Bacteriology 2; Immunology of Parasitic Infection: Principles; Molecular Biology Research Progress & Applications

Slot 5: AIDS; Antimicrobial Chemotherapy; Mycology; Pathogen Genomics

PROJECT REPORT

All students complete a relevant research project which must contain a major practical laboratory component, on a molecular biological aspect of a relevant organism. This can cover research in the broad areas of virology, bacteriology, parasitology or mycology.

COURSE DURATION

One year full-time or two years by split-study.

ENTRANCE REQUIREMENTS

See page 112 of this prospectus.

"Following my BSc. at the University of the West Indies I was strongly considering further studies in human genetics. When I found this course however, I knew that this was what I wanted to do and I have not regretted my decision. It has offered me the perfect opportunity to enhance my practical skills while learning about a wide range of viral, bacterial and parasitic infectious diseases. As some of these greatly affect the Caribbean, I hope that my time at the School has improved my ability to work with the agencies there as they strive to control these diseases."

Anu-Nandika Bachew
Trinidad and Tobago

Read more about our students at:
www.lshtm.ac.uk/study/profiles

MSc Nutrition for Global Health

The course aims to provide comprehensive training in public health nutrition in a global setting with the choice of specialising in a number of topics. It provides an integrated programme covering dietary, epidemiological, public health, social and biological aspects of nutritional science. Specialist topics include maternal and child nutrition, nutrition in emergencies, nutrition programme planning, evaluation and monitoring, and nutritional related chronic disease.

Contact

Course Director: Dr Marko Kerac
Email: *mscphn@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME
Home	£8,300	£4,150
Overseas	£19,450	£9,725

TYPICAL CAREERS

The course attracts graduates who wish to equip themselves for public health nutrition research and teaching, operational work in the field; careers in the food industry and in policy and programmes planning in nutrition.

OBJECTIVES

By the end of this course students should be able to: demonstrate an advanced knowledge of public health nutrition at biological, social and policy levels; assess critically, select and apply a range of appropriate research skills and techniques, from anthropometry and information on dietary intake to broader analytical skills; interpret and synthesise different types of data used to analyse and assess nutritional problems at population and population subgroup levels; evaluate critically the findings of scientific studies of public health nutrition; disseminate and present findings of research in a range of formats and contexts; identify and formulate appropriate responses and intervention strategies to address nutritional issues, and apply knowledge of effective teamwork and communication skills to solve problems and achieve goals.

TERM 1

All students take the **compulsory** modules: Fundamental Public Health Nutrition; Statistics for Epidemiology and Population Health; Basic Epidemiology. In special circumstances one additional module may be taken: Principles of Social Research; Health Promotion Theory; Health Policy, Process and Power.

TERMS 2 AND 3

Students take **one** module from each timetable slot. Some modules can be taken only after consultation with the course director.

Slot 1: Maternal & Child Nutrition

Slot 2: Design & Analysis of Epidemiological Studies; Family Planning Programmes; History & Health; Qualitative Methodologies; Statistical Methods in Epidemiology

Slot 3: Current Issues in Safe Motherhood & Perinatal Health; Epidemiology of Non-Communicable Diseases; Nutrition in Emergencies

Slot 4: Nutrition Related Chronic Disease

Slot 5: Advanced Statistical Methods in Epidemiology; Analysing Survey & Population Data; Applying Public Health Principles in Developing Countries; Nutrition Programme Planning; Principles and Practice of Public Health

PROJECT REPORT

All students complete a relevant research project.

COURSE ACCREDITATION

This course is accredited by the UK Association for Nutrition. It contributes towards the accreditation of individuals as Registered Nutritionists (public health) in the UK.

COURSE DURATION

One year full-time or two years part-time.

ENTRANCE REQUIREMENTS

In addition to the requirements specified on page 112, preference will be given to candidates who have worked in nutrition or health-related activities in developing countries. This course is not a dietetic qualification.

"The course is tough, for a non-nutritionist such as myself, but never dull. I have honestly loved every minute. You come out with the latest knowledge and skills in nutrition, and with the degree so well respected it really does put you one step ahead for graduate job applications. The student body of the course is one of the most diverse I have known, from 20–50 years of age and ranging from straight out of undergraduate to 10 years working for UNICEF. You learn almost as much from the students as you do from the academics."

Alice Burrell
United Kingdom

Read more about our students at:
www.lshtm.ac.uk/study/profiles

MSc One Health (Infectious Diseases)

Also available as a Postgraduate Diploma

This course aims to provide a comprehensive foundation on the principles of diseases in the context of sociological systems, global health and food safety as well as providing skills in relation to One Health methodologies, transdisciplinary interactions and in using a systems approach. This programme is delivered jointly by the Royal Veterinary College and London School of Hygiene & Tropical Medicine. It addresses a broad range of topics under the One Health paradigm.

Contact

Course Directors:
Professor Jo Lines (LSHTM) and
Professor Richard Kock (RVC)
Email: *mscoh@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME
Home	£9,740	Pro Rata
Overseas	£16,910	Pro Rata

TYPICAL CAREERS

Graduates from this programme will have the knowledge and skills provided by experienced scientists in order to be able to respond rapidly and effectively to outbreaks of disease as well as controlling endemic disease at the interface between humans, animals and the environment.

OBJECTIVES

By the end of this course, students will be able to: understand the One Health concept and approach problem solving using a transdisciplinary methodology; understand the origin, context and drivers of infectious disease at the human, animal and environment interface; evaluate impacts of multi-host infections on human, animal and ecosystem health and economics directly, or indirectly via food, vectors or the environment; develop a One Health systems approach to complex disease issues in monitoring, surveillance, diagnosis, prevention and control; critically review published literature.

The course will provide a comprehensive foundation on the principles of diseases in the context of sociological systems, global health and food safety.

TERM 1

There is a one-week orientation period that includes an introduction to studying at the School and the Royal Veterinary College, and four modules: Foundations of One Health; Introduction to Disease Agents for One Health; Infectious Disease Emergence; Introduction to One Health Epidemiology.

TERMS 2 AND 3

All students take the **three compulsory** modules: One Health Economics; One Health Skills; Medical Anthropology and Public Health. In addition students can choose a fourth module from: Vector Biology and Vector-Parasite Interactions; Environmental Epidemiology; Epidemiology and Control of Communicable Diseases; or Globalisation and Health.

PROJECT REPORT

The project consists of a scientific report.

ASSESSMENT

Assessment takes place by eight end-of-module examinations, in-course assignments and by project report and an oral examination.

COURSE DURATION

One year full-time or two years part-time or split-study. The Diploma can be completed full-time in seven months.

ENTRANCE REQUIREMENTS

Applications are welcome from backgrounds in public health, veterinary sciences, biological science, social and environmental sciences, ecology and wildlife health. Application forms and further information can be obtained from:

The Royal Veterinary College

Tel: +44 (0) 20 7468 5134
Email: *admissions@rvc.ac.uk*
Website: *www.rvc.ac.uk*

"After 20 odd years in clinical veterinary practice, I was looking for a change in direction, something that would bring more meaning to my life and address a much needed shift in the work-life balance. The course covered a wide range of disciplines beyond emerging infectious diseases, from epidemiology to anthropology, and has been delivered by those at the top of their game. The international flavour of my fellow students added value to group discussions and truly reflected the position of both the School and Royal Veterinary College in global academia and research."

Kevin Queenan
United Kingdom

Read more about our students at:
www.lshtm.ac.uk/study/profiles

MSc Public Health

This course covers the whole breadth of public health which focuses on high- middle- and low-income countries. Students can follow a general public health course or concentrate on five more specific streams: Health Economics, Environment & Health, Health Services Research, Health Promotion and Health Services Management

Please see the specific prospectus page for each stream. Which stream to follow will depend on your needs and can be decided with support of tutors and course directors during Term 1.

Contact

Course Directors:
Dr Jennifer Gosling, Dr Shakoor Hajat, Dr Ford Hickson, Dr Helen Hogan, Ms Wendy MacDowall and Ms Kiran Nanchahal
Email: *mscph@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME
Home	£8,300	£4,150
Overseas	£19,450	£9,725

APPLICATIONS
Applications should be made to the MSc Public Health in the first instance.

TERM 1
In Term 1 all students on the MSc Public Health complete the Public Health common core, consisting of **four compulsory** modules: Basic Statistics for Public Health and Policy; Basic Epidemiology; Introduction to Health Economics; and Principles of Social Research.

ADDITIONAL MODULES
All students also take two additional modules in Term 1. These are selected from the following five modules: Issues in Public Health; Health Promotion Theory; Health Services; Environment, Health and Sustainable Development; or Health Policy, Process and Power. One of these modules may be **compulsory** for a particular stream. Those who have not completed the named module in Term 1 will not be able to take that stream in Terms 2 and 3.

SUPPLEMENTARY MODULES
Students unfamiliar with computers will need to take the introductory course in basic computer skills. Students are also encouraged to attend the Public Health Lecture Series and seminars organised by Research Modules.

TERMS 2 AND 3
By the middle of Term 1 students must have selected one of the streams listed above. During Terms 2 and 3 all students will take one module from each timetable slot. Apart from the General Public Health Stream, most streams will have **one** or **two compulsory** modules in Term 2. Which modules these are, and what other modules are available, differs according to the streams. Details are given on the specific stream pages. In Term 3 all streams apart from Health Economics have a **compulsory** module.

PROJECT REPORT
All students complete a relevant research project. The nature of this project may differ between streams, and the content must be relevant to the stream.

COURSE DURATION
One year full-time or two years part-time. Students can choose to attend part-time throughout both years or by split-study.

ENTRANCE REQUIREMENTS
In addition to the requirements specified on page 112, preference will be given to applicants with relevant work experience.

"I chose the School for its stellar reputation in global health, the variety of coursework, the ability to complete my MSc in one year and of course the opportunity to live in such an incredible city. I couldn't be happier with my choice! I frequently notice that the papers and books I am reading are authored by the School's faculty, who are very enthusiastic and approachable teachers. My fellow students are also remarkably accomplished with diverse backgrounds. Classes are focused on building skills and teaching us to think in new ways about public health."

Nathan Barusch
USA

Read more about our students at:
www.lshtm.ac.uk/study/profiles

This course is accredited by the Agency for Accreditation of Public Health Education in the European Region (APHEA) which is the accreditation body of the Association of Schools of Public Health in the European Region (ASPHER).

APHEA
Agency for Public Health Education Accreditation

MSc Public Health (Environment & Health stream)

This stream provides a foundation for research and practice in environment and health. Multidisciplinary training is provided in the advanced methods necessary to undertake epidemiological research on the relationships between health and the environment, and to develop an understanding of the social, economic and political contexts which underlie the establishment of priorities and the selection and evaluation of policy responses.

Contact

Course Directors:
Dr Jennifer Gosling, Dr Shakoor Hajat, Dr Ford Hickson, Dr Helen Hogan, Ms Wendy MacDowall and Ms Kiran Nanchahal
Email: *mscph@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME
Home	£8,300	£4,150
Overseas	£19,450	£9,725

TYPICAL CAREERS

Graduates enter careers in epidemiology, health risk assessment, consultancy or policy development as applied to environment and health.

OBJECTIVES

By the end of this stream students should be able to: demonstrate ability to apply knowledge of the core disciplines of public health. In addition, they should be able to: describe the principal concerns in environment and health; interpret and evaluate risk assessments and risk management strategies as applied to environment and health concerns; show a theoretical and practical understanding of the design and analysis of studies in environmental epidemiology; analyse the political and social contexts in which an environment and health policy is made, the factors that lead to policy change, and in particular, the role that research plays in policy change; and show competence in critically evaluating and communicating research evidence in relation to environment and health issues.

TERM 1

Students take a total of **six** modules including the **four compulsory** modules constituting the Public Health common core: Basic Epidemiology; Basic Statistics for Public Health and Policy; Introduction to Health Economics; and Principles of Social Research. In addition, students intending to follow this stream must take: Environment, Health and Sustainable Development. The remaining module can be selected from: Health Policy, Process and Power; Health Promotion Theory; Health Services; or Issues in Public Health

TERMS 2 AND 3

Students take **one** module from each timetable slot. The list below shows recommended modules. There are other modules which may be taken only after consultation with the course director. Where only one module is shown this is **compulsory**.

Slot 1: Designing Disease Control Programmes in Developing Countries; Drugs, Alcohol and Tobacco; Health Care Evaluation; Health Promotion Approaches and Methods; Research Design & Analysis; Study Design: Writing a Study Proposal; Economic Evaluation

Slot 2: Conflict and Health; Design & Analysis of Epidemiological Studies; Health Systems; History & Health; Population, Poverty and Environment; Qualitative Methodologies; Statistical Methods in Epidemiology

Slot 3: Applied Communicable Disease Control; Current Issues in Safe Motherhood & Perinatal Health; Epidemiology of Non-Communicable Diseases; Medical Anthropology & Public Health; Modelling & the Dynamics of Infectious Diseases; Economic Analysis for Health Policy

Slot 4: Environmental Epidemiology

Slot 5: Environmental Health Policy

PROJECT REPORT

All students complete a relevant research project.

APHEA Agency for Public Health Education Accreditation

"The reasons that made me come to the School are its reputation in the field of public health and the diversity of experts among the researchers and classmates. I most enjoyed the regular events and seminars delivered by experts from universities and organisations from around the globe, to share their experience and perspectives on current health issues. The course gives a variety of module options to suit the interests of all students. It offers students chances to better understand themselves and different areas of public health to shape their future career path."

Ng Wai Ning
Hong Kong

Read more about our students at:
www.lshtm.ac.uk/study/profiles

MSc Public Health (Health Economics stream)

This stream provides a foundation for the understanding of health economics as applied in the wider context of health services research. It therefore brings together core teaching on economics as applied to health and health care, but also exposes students to the wider related academic disciplines of importance in understanding the interaction of economics and health, such as epidemiology, public health and policy analysis. The stream is aimed at anyone – with or without any previous training in economics – who is interested in working as a health economist in an academic or professional capacity across high-, middle- and low-income countries. It is important to stress that this is an MSc Public Health, not an MSc Health Economics.

TYPICAL CAREERS

Graduates from this stream go on to a range of roles in public health in academia and industry at all levels.

OBJECTIVES

By the end of this stream students should be able to: demonstrate ability to apply knowledge of the core disciplines of public health, consisting of statistics; epidemiology; health economics; and social research, to real health problems. In addition, students will be able to demonstrate advanced knowledge and understanding of the principles and methods of economic evaluation; demonstrate advanced knowledge of health economic methods applied to health policy or decision analysis; identify, assess and critically synthesise relevant evidence from health economic research literature; select and apply appropriate ethical and feasible study designs to answer questions in health care and health economic research; show competence, both written and verbal, in communicating research evidence.

TERM 1

Students take a total of **six modules** including the **four compulsory** modules constituting the Public Health common core: Basic Statistics for Public Health and Policy; Basic Epidemiology; Principles of Social Research plus one of the following: Issues in Public Health; Health Promotion Theory; Environment, Health and Sustainable Development; or Health Policy, Process and Power. In addition, students may attend the following non-assessed modules: Introduction to Computing, and the Public Health Lecture Series.

TERMS 2 AND 3

Students take **one** module from each timetable slot. A selection from the recommended modules is given here. Some modules can be taken only after consultation with the course director. Where only one module is shown this is compulsory.

Slot 1: Economic Evaluation

Slot 2: Design & Analysis of Epidemiological Studies; Health Systems; Statistical Methods in Epidemiology

Slot 3: Economic Analysis for Health Policy

Slot 4: Reviewing the Literature, Analytical Models for Decision Making; Evaluation of Public Health Interventions

Slot 5: Advanced Statistical Methods in Epidemiology; Analysing Survey & Population Data; Proposal Development

PROJECT REPORT

All students complete a relevant research project.

APHEA Agency for Public Health Education Accreditation

Contact

Course Directors:
Dr Jennifer Gosling, Dr Shakoor Hajat, Dr Ford Hickson, Dr Helen Hogan, Ms Wendy MacDowall and Ms Kiran Nanchahal
Email: *mscph@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME
Home	£8,300	£4,150
Overseas	£19,450	£9,725

"I am a pharmacist, trained and practiced in Vancouver. My role involved having discussions with clinicians to use the best available evidence in their practice. This sparked my interest in epidemiology and public health, leading me to choose this course at the School. The international teaching staff and students are one of the highlights of the School. Many of the staff are leading experts in their field. The students also have lots of amazing experiences to share. I feel this degree will open up many doors of opportunity for me in the future."

Shirley Yeung
Canada

Read more about our students at:
www.lshtm.ac.uk/study/profiles

MSc Public Health (Health Promotion stream)

This stream provides a sound understanding of the theoretical and empirical basis of health promotion, and equips students with the conceptual and practical skills to design and evaluate health promotion interventions and programmes. Health promotion draws on ideas from sociology, psychology, anthropology, education, epidemiology and other disciplines to understand how the health of populations can be maintained and strengthened.

Contact

Course Directors:
Dr Jennifer Gosling, Dr Shakoor Hajat, Dr Ford Hickson, Dr Helen Hogan, Ms Wendy MacDowall and Ms Kiran Nanchahal
Email: *mscph@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME
Home	£8,300	£4,150
Overseas	£19,450	£9,725

TYPICAL CAREERS

Graduates work in practice, management, research and teaching in health promotion, public health, health policy and related fields at all levels.

OBJECTIVES

By the end of this stream, students should be able to: demonstrate ability to apply knowledge of the core disciplines of public health: statistics, epidemiology, health economics, and social research, to real health problems. They should also be able to demonstrate knowledge and understanding of the principal theories, methods and interventions used in health promotion; understand the development of the discipline of health promotion in the UK and internationally; assess the appropriate use of population-wide versus targeted health promotion interventions; formulate health promotion policy and practice that is relevant to varying needs in diverse contexts; be able to appraise and communicate research evidence; and apply the knowledge and analytical skills gained to inform health promotion policymaking and programme planning, implementation and evaluation.

TERM 1

Students take a total of **six** modules including the **four compulsory** modules constituting the Public Health common core: Basic Epidemiology; Basic Statistics for Public Health and Policy; Introduction to Health Economics; and Principles of Social Research. Students intending to follow this stream have to take Health Promotion Theory. Their sixth module can be selected from: Environment, Health and Sustainable Development; Health Services; Health Policy, Process and Power; Issues in Public Health.

TERMS 2 AND 3

Students take **one** module from each timetable slot. A selection from the recommended modules is given here. Some modules can be taken only after consultation with the course director. Where only one module is shown this is **compulsory**.

Slot 1: Health Promotion Approaches and Methods

Slot 2: Conflict and Health; Design & Analysis of Epidemiological Studies; Family Planning Programmes; Health Systems; History & Health; Population, Poverty and Environment; Qualitative Methodologies; Statistical Methods in Epidemiology

Slot 3: Applied Communicable Disease Control; Current Issues in Safe Motherhood & Perinatal Health; Epidemiology of Non-Communicable Diseases; Medical Anthropology & Public Health

Slot 4: Environmental Epidemiology; Epidemiology & Control of Communicable Diseases; Ethics, Public Health & Human Rights; Globalisation & Health; Reviewing the Literature; Analytical Models for Decision Making; Sexual Health

Slot 5: Health Promotion Integrating Module

PROJECT REPORT

All students complete a summer project relevant to health promotion.

APHEA Agency for Public Health Education Accreditation

"After studying Psychology and Global Health in the US, I began thinking about a career in health promotion and health education. I knew that postgraduate education was the best way to gain the knowledge, skills and experience I needed, and when I came across the MSc at the School, I knew immediately that it was the right course for me. One thing I love most about the School is that it is so niche and specific – everyone studying here is passionate about public health and we're all working towards the same goal."

Hayley Gleeson
United Kingdom

Read more about our students at:
www.lshtm.ac.uk/study/profiles

MSc Public Health (Health Services Management stream)

This stream provides a foundation for the understanding of health services management by drawing on a wide range of academic disciplines and enables students to develop knowledge, understanding and capability in various scientific methods and fields of study relevant to management. The stream is aimed at those who plan a career in management from high-, middle- and low-income countries.

Contact

Course Directors:
Dr Jennifer Gosling, Dr Shakoor Hajat, Dr Ford Hickson, Dr Helen Hogan, Ms Wendy MacDowall and Ms Kiran Nanchahal
Email: *mscph@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME
Home	£8,300	£4,150
Overseas	£19,450	£9,725

TYPICAL CAREERS

Graduates from this stream go on to a range of management positions in ministries of health around the world, the UK National Health Service, non-governmental organisations and management consultancies. Some students also continue with careers in research.

OBJECTIVES

By the end of this stream students should be able to: demonstrate ability to apply knowledge of the core disciplines of public health, consisting of statistics, epidemiology, health economics, and social research, to real health problems. In addition, students will be able to analyse the principles, structure and functions of health systems, including their financial, organisational and policymaking processes and systems; critically assess and apply a range of key management concepts and functions in a range of health care settings; appreciate the role and contribution of organisational theory and approaches to management in the field of health care; show competence in critically evaluating and communicating research evidence; and apply knowledge of effective team-working and communication skills to solve problems and achieve specific goals.

TERM 1

Students take a total of **six** modules including the **four compulsory** modules constituting the Public Health common core: Basic Epidemiology; Basic Statistics for Public Health and Policy; Introduction to Health Economics; and Principles of Social Research. In addition, students intending to follow this stream must take Health Services. The sixth module can be selected from: Environment, Health and Sustainable Development; Health Policy, Process and Power; Health Promotion Theory; or Issues in Public Health.

TERMS 2 AND 3

Students take **one** module from each timetable slot. A selection from the recommended modules is given here. Some modules can be taken only after consultation with the course director. Where only one module is shown this is **compulsory**.

Slot 1: Economic Evaluation; Health Care Evaluation; Study Design: Writing a Study Proposal; Sociological Approaches to Health

Slot 2: Conflict and Health; Health Systems; History & Health; Qualitative Methodologies

Slot 3: Organisational Management

Slot 4: Analytical Models for Decision Making; Ethics, Public Health & Human Rights; Globalisation & Health; Reviewing the Literature

Slot 5: Health Services Management Integrating Module

PROJECT REPORT

All students complete a relevant research project.

APHEA
Agency for Public Health Education Accreditation

"While working as a public health physician, I realised how many people in developed countries still suffer from tuberculosis, not only the elderly but people with complicated socioeconomic factors. How could I interpret this transition into low- and middle-income countries? This course has opened the gate for me. I have learned about diverse global health systems, sharing my experience with students from all over the world, many of whom have worked on tuberculosis. I may soon have the answer to my question and be able to apply the theory to work in low- and middle-income countries."

Katsura Danno
Japan

Read more about our students at:
www.lshtm.ac.uk/study/profiles

MSc Public Health (Health Services Research stream)

This stream provides students with a broad knowledge and understanding of the concepts and methods used in studying health services and systems. Health Services Research is research that seeks to improve the quality, organisation and financing of health services. Its concern extends from the care of individuals through health care organisations to national and international policies. This stream includes a large research component enabling students to develop their methodological skills.

Contact

Course Directors:
Dr Ford Hickson, Dr Jennifer Gosling, Dr Shakoor Hajat, Dr Helen Hogan, Ms Wendy MacDowall and Ms Kiran Nanchahal
Email: *mscph@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME
Home	£8,300	£4,150
Overseas	£19,450	£9,725

TYPICAL CAREERS

Graduates from this stream go on to pursue careers in research (including further study at doctoral level) and in health services, government ministries and non-governmental organisations.

OBJECTIVES

By the end of this stream students should be able to: demonstrate ability to apply knowledge of the core disciplines of public health, consisting of statistics, epidemiology, health economics, and social research, to real health problems. In addition, students will be able to understand the strengths and weaknesses of different study designs; identify, assess and synthesise evidence from research literature; select and apply appropriate, ethical and feasible study designs to answer questions in health services and health systems research; show competence in critically evaluating and communicating research evidence; and understand the relationship between research evidence and policy/practice.

TERM 1

Students take a total of **six** modules including the **four compulsory** modules constituting the Public Health common core: Basic Epidemiology; Basic Statistics for Public Health and Policy; Introduction to Health Economics; Principles of Social Research. In addition, students intending to follow this stream **must** take: Health Services. The remaining module can be selected from: Environment, Health and Sustainable Development; Health Policy, Process and Power; Health Promotion Theory; or Issues in Public Health.

TERMS 2 AND 3

Students take **one** module from each timetable slot. A selection from the recommended modules is given here. Some modules can be taken only after consultation with the course director. Where only one module is shown this is **compulsory**.

Slot 1: Health Care Evaluation; Economic Evaluation; Sociological Approaches to Health

Slot 2: Design & Analysis of Epidemiological Studies; Health Systems; History & Health; Qualitative Methodologies; Statistical Methods in Epidemiology

Slot 3: Medical Anthropology & Public Health; Economic Analysis for Health Policy

Slot 4: Reviewing the Literature

Slot 5: Proposal Development

PROJECT REPORT

All students complete a relevant research project.

APHEA Agency for Public Health Education Accreditation

"I chose to come to the School because of its global reputation as an excellent Public Health institution. The international student community provides a great exposure to and opportunity for cross-learning. The one-year Masters programme is highly suitable for full-time employees like me who need to take time off their job to undertake the course. The training I have received at the School has been really helpful in improving my competence as a researcher and developing the health services division within my organisation."

Sanil Joseph
India

Read more about our students at:
www.lshtm.ac.uk/study/profiles

MSc Public Health (Public Health stream)

This stream provides the knowledge and skills necessary to improve the health of populations across a range of income settings. The emphasis is on the use, development and critical evaluation of conceptual models, evidence and methods of analysis, and on practical, effective interventions.

Contact

Course Directors:
Dr Ford Hickson, Dr Jennifer Gosling, Dr Shakoor Hajat, Dr Helen Hogan, Ms Wendy MacDowall and Ms Kiran Nanchahal
Email: *mscph@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME
Home	£8,300	£4,150
Overseas	£19,450	£9,725

TYPICAL CAREERS

Graduates from this stream work in health care, health policy and public health organisations at local, national and international level in service and academic public health roles. If your main interest is public health in low-income countries please refer to the MSc Public Health in Developing Countries on page 47.

OBJECTIVES

By the end of this stream students should be able to: demonstrate ability to apply knowledge of the core disciplines of public health, consisting of statistics, epidemiology, health economics, and social research, to real health problems. In addition, they should be able to: critically assess key public health functions; demonstrate knowledge and skills in a range of topics related to public health; formulate, implement and evaluate appropriate policy responses to public health problems, and show competence in critically evaluating and communicating research evidence.

TERM 1

Students take a total of **six modules** including the **four compulsory modules** of the Public Health common core: Basic Epidemiology; Basic Statistics for Public Health and Policy; Introduction to Health Economics; and Principles of Social Research. In addition, students intending to follow this stream must take: Issues in Public Health. The remaining module can be selected from: Environment, Health and Sustainable Development; Health Policy, Process and Power; Health Promotion Theory or Health Services.

TERMS 2 AND 3

Students take **one** module from each timetable slot. A selection from the recommended modules is given here. Some modules can be taken only after consultation with the course director. Where only one module is shown this is **compulsory**.

Slot 1: Drugs, Alcohol and Tobacco; Health Care Evaluation; Health Promotion Approaches and Methods; Research Design & Analysis; Study Design: Writing a Study Proposal; Economic Evaluation

Slot 2: Conflict and Health; Design & Analysis of Epidemiological Studies; Health Systems; History & Health; Qualitative Methodologies; Statistical Methods in Epidemiology

Slot 3: Applied Communicable Disease Control; Epidemiology of Non-Communicable Diseases; Medical Anthropology & Public Health; Economic Analysis for Health Policy; Organisational Management

Slot 4: Environmental Epidemiology; Epidemiology & Control of Communicable Diseases; Ethics, Public Health & Human Rights; Globalisation & Health; Nutrition Related Chronic Disease; Reviewing the Literature; Analytical Models for Decision Making

Slot 5: Principles and Practice of Public Health

PROJECT REPORT

All students complete a relevant research project.

APHEA Agency for Public Health Education Accreditation

"I applied to the MSc because it is most similar to the course I am due to take as part of my Medical Residency of Public Health training in Portugal. When going through the program, I was impressed by how flexible it is apart from the core disciplines in Public Health. The possibility of tailoring my MSc program to my needs and preferences was definitely a key factor that influenced my choice. Being a member of the Student Representatives Council was also an incredible experience that allowed me to develop leadership skills and provide a better experience to other students."

Sofia de Figueiredo Ribeiro
Portugal

Read more about our students at:
www.lshtm.ac.uk/study/profiles

MSc Public Health for Eye Care

This course aims to provide eye health (ophthalmic) professionals with the knowledge and skills required to reduce blindness and visual disability in their populations by developing an evidence based public health approach for the control and management of blinding eye diseases; facilitating personal development; and enabling individuals to contribute effectively at a local, national and international level in research, training and service delivery in eye health for the prevention of avoidable blindness.

Contact

Course Director:
Dr Covadonga Bascaran
Email:
covadonga.bascaran@lshtm.ac.uk

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME
Home	£8,300	£4,150
Overseas	£19,450	£9,725

TYPICAL CAREERS

Graduates from this course are expected to enter careers with ministries of health, universities and NGOs involved in developing health services to prevent blindness and improve vision.

OBJECTIVES

The course is designed in keeping with the aims, priorities and strategies of VISION 2020, The Right to Sight (*www.v2020.org*) and the principles of public health. This training extends the application of clinical ophthalmology, which is focused on individual patients, to a consideration of the eye health of whole populations. The course focuses on developing skills to critically appraise epidemiological studies, select appropriate public health interventions for eye care and design comprehensive programmes appropriate for their specific health systems. This task requires specific skills not usually included in clinical ophthalmic training. This course does not include any clinical training and is not appropriate for people without a background in clinical ophthalmology.

TERM 1

All students take the **compulsory** modules: Epidemiology of Blinding Eye Diseases; Skills for Field Projects in Eye Care; Public Health Programmes in Eye Care; Basic Statistics for Public Health and Policy; Basic Epidemiology; Introduction to Health Economics. Recommended optional modules can be taken after consultation with the course director.

TERMS 2 AND 3

Students take **one** module from each timetable slot. Where only one module is shown this is **compulsory**.

Slot 1: Childhood Eye Disease and Ocular Infections

Slot 2: Non-Communicable Eye Disease

Slot 3: Implementing Eye Care: Skills and Resources

Slot 4: Global Disability & Health

Slot 5: Applying Public Health Principles in Developing Countries; Principles and Practice of Public Health; Proposal Development.

PROJECT REPORT

Students will complete a research project on an appropriate topic, preferably focused in their own work setting.

COURSE DURATION

One year full-time or two years part-time (split-study).

ENTRANCE REQUIREMENTS

In addition to the requirements specified on page 112, students are expected to be health care professionals involved in eye care, or to have appropriate work experience.

"Discovering this programme could not have come at a better point in my career. It has been an amazing year of productive interactions with policy makers in eye care and public health. I have become even more aware of the myriad of opportunities in eye care. The course has empowered and equipped me with the requisite skills to embark on a career in ophthalmology, keeping in mind the invaluable roles that advocacy, research and evidence-based practice have to play for eye care programmes to be effective and sustainable."

Henrietta Ifechukwude Monye Nigeria

Read more about our students at:
www.lshtm.ac.uk/study/profiles

MSc Public Health in Developing Countries

This course aims to equip students with skills needed to appreciate and analyse public health problems in low- and middle-income countries, and to design and evaluate actions to improve public health. Students develop core Public Health research skills in Term 1 and go on to sculpt a course to suit their professional needs.

Students on this course have substantial experience of planning or implementing public health programmes, of teaching or research in low-income countries. We build on this experience throughout the year and emphasise the importance of research and evidence in Public Health.

Contact

Course Directors:
Ms Krystyna Makowiecka,
Dr Jeroen Ensink and
Ms Sandra Mounier-Jack
Email: *mscphdc@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME	FIELD TRIP
Home	£8,300	£4,150	£200
Overseas	£19,450	£9,725	£200

TYPICAL CAREERS

Graduates from this course work in global health, health service management, in health programmes in low-income countries, in international and national NGOs, and in research.

OBJECTIVES

By the end of this course students should be able to: demonstrate knowledge and understanding of theory and practice in the core public health disciplines; demonstrate specialist knowledge and skills of subjects relevant to public health; apply these skills to identify and assess public health problems in low-income countries; evaluate actions designed to improve public health; formulate culturally-appropriate strategies to address public health problems in low-income settings; apply appropriate research skills to evaluate and apply research findings.

TERM 1

All students take the **compulsory** modules: Extended Epidemiology; Health Policy, Process & Power; Introduction to Health Economics; Principles of Social Research; Statistics for Epidemiology and Population Health. Students also participate in the Public Health in Developing Countries Student Seminars and attend the Public Health Lecture Series.

TERMS 2 AND 3

Students take **one** module from each timetable slot. The most popular modules are listed here but a choice of other modules is available.

Slot 1: Designing Disease Control Programmes in Developing Countries; Epidemiology & Control of Malaria; Health Care Evaluation; Maternal & Child Nutrition.

Slot 2: Conflict and Health; Design & Analysis of Epidemiological Studies; Family Planning Programmes; Population, Poverty and Environment; Health Systems; Statistical Methods in Epidemiology

Slot 3: Current Issues in Safe Motherhood & Perinatal Health; Epidemiology of Non-Communicable Diseases; Medical Anthropology & Public Health; Tropical Environmental Health

Slot 4: Epidemiology & Control of Communicable Diseases; Ethics, Public Health and Human Rights; Globalisation and Health; Globalisation & Health

Slot 5: Applying Public Health Principles in Developing Countries

RESIDENTIAL FIELD TRIPS

Students go on residential field trips during the orientation week and after the exams in June.

PROJECT REPORT

All students complete a relevant research project.

COURSE DURATION

One year full-time or two years part-time. Students can choose to attend part-time throughout both years or by split-study.

ENTRANCE REQUIREMENTS

In addition to the requirements specified on page 112, candidates are expected to have worked in public health-related activities in developing countries for at least two years. Candidates with less experience may be considered.

APHEA
Agency for Public Health Education Accreditation

"I am a medical doctor from Nigeria with some experience working in implementing HIV projects in my country. Choosing the course was easy for me as I live and work in a developing country so a course specifically tailored to meet my interests was great. I particularly loved the opportunity of peer-to-peer learning afforded by the School as the students have such a diverse wealth of experience. The degree has helped me identify how I can fill the gaps in public health programs in my country with the hope of improving health."

Annette Imohe
Nigeria

Read more about our students at:
www.lshtm.ac.uk/study/profiles

MSc Reproductive & Sexual Health Research

The course aims to introduce the concepts and methods used in reproductive and sexual health research and to equip students with principles, methods and research skills necessary to conduct policy-relevant research. It provides a non-clinical foundation in the main aspects of reproductive and sexual health: family planning, obstetric health, AIDS and sexually-transmitted infections. This MSc is Europe's only graduate course in reproductive health research, and is designed mainly for those interested in middle- and low-income countries but it also provides excellent training for people intending to work in high-income countries.

Contact

Course Director: Ms Lynda Clarke
Email: *mscrshr@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME
Home	£8,300	£4,150
Overseas	£19,450	£9,725

TYPICAL CAREERS

Graduates go into public health and reproductive health programmes, evaluation of family planning, research for governments and NGOs and university teaching.

OBJECTIVES

By the end of this course students should be able to: demonstrate advanced knowledge and understanding of evidence-based approaches to research of reproductive and sexual health issues; critically assess and apply these research approaches to inform development, health and social welfare programmes; demonstrate a good understanding of the socio-cultural, political and ethical issues surrounding reproductive and sexual health; identify and address appropriate research questions in reproductive and sexual health, using methods from a range of public health disciplines; carry out research activities to identify effective components of reproductive and sexual health services within programmes.

TERM 1

All students take the **compulsory** modules: Basic Epidemiology; Foundations in Reproductive Health; Principles of Social Research; Statistics for Epidemiology and Population Health.

Optional: Extended Epidemiology; Health Policy, Process and Power; Introduction to Health Economics; Population Studies.

TERMS 2 AND 3

Students take **one** module from each timetable slot. A selection from the recommended modules is given here. Some modules can be taken only after consultation with the course director. Where only one module is shown this is **compulsory**.

Slot 1: Designing Disease Control Programmes in Developing Countries; Health Care Evaluation; Health Promotion Approaches and Methods; Maternal & Child Nutrition; Research Design & Analysis

Slot 2: Conflict and Health; Design & Analysis of Epidemiological Studies; Family Planning Programmes; Population, Poverty and Environment; Qualitative Methodologies; Statistical Methods in Epidemiology

Slot 3: Medical Anthropology & Public Health; Social Epidemiology; Current Issues in Safe Motherhood & Perinatal Health; Control of Sexually Transmitted Infections

Slot 4: Sexual Health

Slot 5: Advanced Statistical Methods in Epidemiology; AIDS; Analysing Survey & Population Data; Applying Public Health Principles in Developing Countries; Proposal Development

PROJECT REPORT

All students complete a relevant research project.

COURSE DURATION

One year full-time or two years part-time. Students can choose to attend part-time throughout both years or by split-study.

ENTRANCE REQUIREMENTS

See page 112 of this prospectus.

"My experiences volunteering for the Terrence Higgins Trust and working as a healthcare assistant for Guys and St Thomas NHS Trust in the sexual health department fuelled my interest in reproductive and sexual health and I wanted to learn about the global perspectives, leading me to study this course. Fellow students are often great sources of advice and insights, as well as the international alumni network. Whatever region of the world you choose to work in, there is guaranteed to be an alumni network or a fellow student to keep in contact with."

Deborah Sealy
United Kingdom

Read more about our students at:
www.lshtm.ac.uk/study/profiles

MSc Tropical Medicine & International Health

The course aims to develop the careers of doctors whose interest is the practice of medicine in tropical and developing countries. The course provides training in clinical tropical medicine at the Hospital for Tropical Diseases, and a broad choice of modules to enable students to develop or extend interests in a wide variety of subjects relevant to the practice of medicine in tropical and developing country environments.

Contact

Course Director:
Professor Robin Bailey
Email: *msctmih@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME
Home	£8,300	£4,150
Overseas	£20,450	£10,225

TYPICAL CAREERS

Graduates from this course have taken a variety of career paths including further research in epidemiology or parasite immunology, or joined field research programmes or international organisations concerned with health care delivery or disaster relief; or returned to academic or medical positions in developing country institutions.

OBJECTIVES

By the end of this course students should be able to: understand and describe the causation, pathogenesis, clinical features, diagnosis, management and control of the major parasitic, bacterial and viral diseases of developing countries; demonstrate knowledge and skills in diagnostic parasitology and other simple laboratory methods; understand and apply basic epidemiological principles, including selecting appropriate study designs; apply and interpret basic statistical tests for the analysis of quantitative data; critically evaluate published literature in order to make appropriate clinical decisions; communicate relevant medical knowledge to patients, health care professionals, colleagues and other groups; and understand the basic sciences underlying clinical and public health practice. The course structure may be subject to change in the coming academic year.

TERM 1

All students take the **compulsory** modules: Analysis and Design of Research Studies; Clinical Trials; Critical Skills for Tropical Medicine (evidence-based medicine and basic epidemiology); Parasitology & Entomology.

Optional: Molecular Biology. In the 'Friday Forum', students present their own experience to colleagues.

TERMS 2 AND 3

Students take **one** module from each timetable slot. The most popular modules are listed here but a wide choice of other modules is available. Recognising that students have diverse backgrounds and experience, the course director considers requests to take any module within the School's portfolio, provided that this is appropriate for the student. Students who wish to take the Diploma in Tropical Medicine & Hygiene examination must take Clinical Infectious Diseases 1 and 3 in Slot 1 and Slot 3.

Slot 1: Clinical Infectious Diseases 1; Epidemiology & Control of Malaria; Clinical Virology

Slot 2: Design & Analysis of Epidemiological Studies; Conflict and Health; Advanced Diagnostic Parasitology

Slot 3: Clinical Infectious Diseases 3; Clinical Immunology

Slot 4: Immunology of Parasitic Infection: Principles; Epidemiology & Control of Communicable Diseases; Globalisation & Health

Slot 5: AIDS; Mycology; Antimicrobial Chemotherapy; Tropical Environmental Health

PROJECT REPORT

All students complete a relevant research project.

COURSE DURATION

One year full-time or two years by split-study.

ENTRANCE REQUIREMENTS

A degree in medicine with full medical registration as a practising doctor. Preference will be given to candidates who have at least two years of experience in clinical medicine.

"My experience at the School was mind-blowing and the course was the wisest choice I made as a clinician with interest in research. It is well crafted and robust to encompass all aspects of tropical medicine with research skills fit for a medic both in developing and developed countries. In such a little time, it has instilled in me, the wits, confidence and satisfaction to make evidence-based decisions. I can boldly say I am well prepared to take on higher career pursuits with confidence and make unbiased therapeutic action plans towards my patients and ultimately the community at large."

Datonye Briggs
Nigeria

Read more about our students at:
www.lshtm.ac.uk/study/profiles

MSc Veterinary Epidemiology

Also available as a Postgraduate Diploma

The course aims to provide an understanding of the conceptual basis of epidemiology and training in essential methodological skills for the design, conduct, analysis, interpretation and communication of epidemiological studies; and surveillance and disease control in animal and human populations. There is a shortage of trained veterinary epidemiologists and there are excellent career opportunities in a variety of organisations. This is a joint programme provided by the School and the Royal Veterinary College.

Contact

Course Directors:
Ms Ellen Fragaszy (LSHTM),
Professor Dirk Pfeiffer (RVC)
and Dr Kristien Verheyen (RVC)
Email: *ellen.fragaszy@lshtm.ac.uk*

Fees

FEES IN 2014/15	FULL-TIME	PART-TIME
Home	£7,500	£3,750
Overseas	£19,000	£9,500

TYPICAL CAREERS

There are excellent opportunities in a variety of organisations involved in disease control at national, regional and international level, as well as in teaching, research and various food-related industries. Graduates hold senior positions within government departments in many different countries, as well as in research centres and pharmaceutical companies.

OBJECTIVES

By the end of this course students will be able to: demonstrate advanced knowledge and understanding of the role of epidemiology, the major health issues in both human and animal populations and the contribution of epidemiology to other health related disciplines; select an appropriate study design and develop a study protocol capable of answering the research question; manage computerised epidemiological data and carry out appropriate statistical analyses; assess the results of epidemiological studies, including critical appraisal of study question, study design, methods and conduct, statistical analysis and interpretation; apply epidemiological principles to surveillance and infection and disease control; communicate effectively with researchers from different disciplinary backgrounds, including the general public and key policy makers.

TERM 1

All students take the **compulsory** modules and usually take the recommended module.

Compulsory: Epidemiology in Practice; Epidemiological Aspects of Laboratory Investigation; Surveillance of Animal Health and Production; Extended Epidemiology; Statistics for Epidemiology and Population Health

Recommended: Public Health Lecture Series

Optional: Molecular Epidemiology of Infectious Diseases; Introduction to Computing

TERMS 2 AND 3

Students take **five compulsory** modules.

Slot 1: Economics of One Health

Slot 2: Statistical Methods in Epidemiology

Slot 3: Modelling and the Dynamics of Infectious Diseases

Slot 4: Epidemiology and Control of Communicable Diseases

Slot 5: Applied Veterinary Epidemiology

PROJECT REPORT

Students will complete a research project on a relevant topic of their choice.

COURSE DURATION

One year full-time or two years part-time.

ENTRANCE REQUIREMENTS

A recognised undergraduate degree in veterinary science, biological science, mathematics or statistics, together with relevant professional experience. Application forms may be obtained from:

The Royal Veterinary College

Tel: +44 (0) 20 7468 5134
Email: *admissions@rvc.ac.uk*
Website: www.rvc.ac.uk

"The MSc Veterinary Epidemiology was invaluable as it taught me almost as much about human epidemiology as it did about animals, providing me with greater career opportunities. The course was definitely a significant stepping stone towards attaining my current role as a Senior Epidemiologist for the Healthcare-Associated Infections and Antimicrobial Resistance Department of Public Health, England. The proudest moments of my career to date have been having a paper published in the Journal of Veterinary Education and presenting a paper at the European Congress of Clinical Microbiology and Infectious Diseases in London."

Morris Muzyamba
Zambia

Read more about our students at:
www.lshtm.ac.uk/study/profiles

Chickens in a market in Vietnam. Photo courtesy Guillaume Fournie, the Royal Veterinary College

There are around 3,000 students from over 140 countries on the Distance Learning programme. The aim of the programme is to meet the needs of students of public and global health who want to obtain a world-class qualification, wherever they are based.

Master's Degrees by Distance Learning

Distance learning courses are an ideal option for individuals who are unable to come to London for an extended period of time. Our distance learning courses and assessment protocols ensure that students can achieve the same standard as those on our London-based courses.

Distance Learning student Althea East Ennis looking through course materials.

The School's Distance Learning Programme was established in 1998 and there are currently over 3,000 students registered in over 140 countries. The aim of the Programme is to meet the needs of students of public and global health who want to obtain a world-class qualification wherever they are based. Students may study for a Postgraduate Certificate, Postgraduate Diploma or Master's degree by distance learning in five courses. Opportunities also exist for students to take individual modules as short courses from the full degree programme. The courses operate through the University of London International Programmes, and applications must be made through the University (see 'Applications' for details). Students are registered with both the University and the School. The course design, teaching and assessment are all undertaken by School staff.

The University of London International Programmes

The University's thriving International Programmes were established in 1858 to make the University of London degree accessible to students who could not come to the University to study in a conventional way. Studying in this way provides an attractive option for those with financial constraints, commitments to work or family, or lack of local access to higher education.

Over 40,000 students in more than 180 countries across the world are registered for a wide range of University of London qualifications. For many students, gaining such a qualification has been a long-term ambition which, through the International Programmes, they are now able to realise.

Course structure and credit system

We operate a credit system for our taught courses, consistent with the English and European (ECTS) credit systems. This allows other educational institutions and employers across Britain, the rest of Europe and beyond to more easily understand and recognise the amount and standard of study which our courses involve.

Credits are awarded for successful completion of modules and the project, with most modules being worth 15 credits and the project 45 credits.

A total of 180 credits (90 ECTS) are required for an MSc degree, 120 for a Postgraduate Diploma (PGDip), and 60 for a Postgraduate Certificate (PGCert). Specific requirements are given on the pages for individual courses. All credits obtained will be shown on final course transcripts.

More details on the modules available and the structure of the course are given with the course descriptions on the following pages and at *www.londoninternational.ac.uk*. Recommendations for the order of study of specific modules are covered in the respective course regulation booklets. Specific requirements may apply for some study modules. Not all modules will be available every year.

A flexible and supportive learning method

The Distance Learning Programme is designed for independent learning using the fully comprehensive study materials provided. Students receive academic support and assessment feedback from subject tutors. Online conferencing is strongly encouraged to network with staff and other students on the programme. The course design gives students a lot of flexibility over when to study during the academic year, with relatively few fixed deadlines.

Mode of delivery

A range of delivery modes and study materials are used and all students have access to the School's Virtual Learning Environment (Moodle) and other online resources such as academic journals.

Materials provided include some or all of:

- Study guides/workbooks or CD-ROMs for individual modules, containing the text of the module, self assessment exercises with feedback and assignment questions;
- Access to supplementary readings referred to in the module text and the School's online library resources;
- Textbooks and sample examination papers;
- Additional online exercises;
- Student handbook, giving information on planning studies, key deadlines, preparing for examinations, and study techniques.

The **Clinical Trials** course modules are mainly delivered online, with study materials supplemented by use of e-books.

The **Epidemiology and Global Health Policy** course modules are mainly delivered via interactive CD-ROMs, supplemented with textbooks and additional readings.

The **Infectious Diseases** and **Public Health** course modules are mainly delivered via printed study guides, textbooks, and supplementary reading materials with some modules using interactive CD-ROMs.

Time commitment

The time commitment needed by each student to complete the course successfully varies. To complete in the minimum period (one year for the Postgraduate Certificate, two years for the Postgraduate Diploma and MSc) students should be prepared for no less than 15 hours of study per week during the first year, and 30 hours per week in the second.

Course duration

Postgraduate Certificate students have a minimum period of one year and a maximum of five years to complete. Postgraduate Diploma and MSc students have a minimum period of two years and a maximum of five years in which to complete. This flexibility in timing allows students to pace their studies with their particular circumstances. Individual circumstances vary but students in full-time work typically take 3–5 years to complete the MSc.

Assessment

Assessment for the Postgraduate Certificate, Postgraduate Diploma and MSc is by a combination of coursework and unseen written examinations. Examinations are held once a year in June, usually one for each module. Examinations are normally held in a student's country of residence, using the existing system of overseas examination authorities that the University of London uses for all its external students. Details of coursework assignments, including project reports, are given with the course materials. Annual deadlines are set for each assignment.

The Distance Learning Programme is designed for independent learning using the fully comprehensive study materials provided.

Entrance requirements

Entrance requirements for each of the Postgraduate Certificate, Postgraduate Diploma and MSc courses are specified in the following pages. Applicants who do not have the usual academic qualifications may be required to study one module from the programme as a Short Course student in order to qualify for consideration for entry to the full programme. Students who successfully complete one or more modules and who pass the assessment satisfactorily may later use these modules to build towards a Master's degree, Postgraduate Diploma or Postgraduate Certificate as appropriate, provided that application is made within three years of having passed the relevant module(s).

Computing requirements

As these courses require students to access regularly the School's virtual learning environment and to submit assignments online, students will need access to a computer. The minimum specifications are for a computer with a CD-ROM drive; internet connection for email and web access; sound card and headset. Students will also need access to a calculator.

Continuing Professional Development: Distance Learning MSc Programme Modules

Individuals may wish to undertake study of a distance learning module, or group of modules, from the Distance Learning MSc Programme for reasons of professional updating/refreshing or special interest, or to 'sample' the programme. A number of modules are available and some modules have been combined into 'themes' of suggested combinations. Please see page 106 of this prospectus for details.

Individuals may wish to undertake study of a distance learning module, or group of modules, from the Distance Learning MSc Programme for reasons of professional updating/ refreshing or special interest, or to 'sample' the programme.

Applications

Enquiries should be forwarded to the Student Advice Centre: *www.londoninternational.ac.uk/contact-us* or callers can contact the Information Centre:

The Information Centre,
University of London,
Stewart House,
32 Russell Square,
London WC1B 5DN,
United Kingdom

Tel: +44 (0) 20 7862 8360/8361/8362
Website: *www.londoninternational.ac.uk*

PG Certificate, PG Diploma & MSc in Clinical Trials

These courses aim to provide students with a theoretical and practical understanding of the issues involved in the design, conduct, analysis and interpretation of randomised controlled trials of health interventions. They are suitable for students working in high-, middle- and low-income countries.

Contact

Course Directors: Dr Julia Langham, Dr Claire Snowdon, Professor Diana Elbourne
Academic enquiries: *ct-directors@lshtm.ac.uk*
General course enquiries: *www.londoninternational.ac.uk/contact-us*

Fees

FEES IN 2014/15

Postgraduate Certificate	£6,850
Postgraduate Diploma	£9,300
MSc	£11,770

TYPICAL CAREERS

The courses are suitable both for those wishing to gain an overall understanding of trials before moving into the field, and those who have general or specialist experience in clinical trials and aim to broaden their role in the design, management, analysis and reporting of clinical trials.

OBJECTIVES

The need for rigorous evaluation of components of health care is increasingly recognised worldwide as a global health issue. An important type of evaluation is the randomised clinical trial.

The main disciplinary perspectives for these courses come from clinical trials, statistics and epidemiology, but others will contribute in both the core and optional modules. Students will be trained to develop skills to scrutinise information, to critically analyse and carry out research and to communicate effectively.

CREDITS AWARDED

Credits will be awarded to all modules (15 credits each) and the integrating module (MSc only – 30 credits) successfully completed. To pass an award successfully the following credits must be gained:

- Postgraduate Certificate – 60 credits;
- Postgraduate Diploma – 120 credits;
- MSc – 180 credits.

COURSE STRUCTURE

The Postgraduate Certificate comprises the four core modules, which are also common to the Diploma and MSc courses: Fundamentals of Clinical Trials; Basis Statistics for Clinical Trials; Clinical Trials in Practice; and Reporting and Reviewing Clinical Trials.

The Postgraduate Diploma consists of the four core modules plus four elective modules.

The MSc consists of the four core modules plus five elective modules (at least three of these must be chosen from the Clinical Trials list). Additionally, a final **compulsory** module and the integrating module must also be completed.

After completion of the core modules, Diploma and MSc students may also be eligible for the 'blended learning option', which allows for the study of up to two modules (from a specified list) in London at the School during the spring or summer terms, in place of distance learning modules.

INTEGRATING MODULE

All students on the MSc course will be required to complete an integrating module comprising a written report, usually in their final year of study.

ENTRANCE REQUIREMENTS

See page 112 of this prospectus.

ADDITIONAL REQUIREMENTS

The Clinical Trials modules comprise online study materials which are supported by web-based discussion forums. It is essential that all students have regular access to the internet to access the module materials, participate in web-based discussions, access online library resources and submit assignments. Students must have a computer and are responsible for ensuring adequate system maintenance. Students will also require a calculator.

"I'm a doctor in the Psychological Medicine Research Group at the University of Oxford. I develop new ways of helping people who have cancer and who also have depression. Studying clinical trials gave me a much deeper understanding of my work, both theoretically and practically. I had never studied anything by distance learning before so was rather apprehensive. But the modules were really well organised and practical. The most exciting thing was that many of the tutors were world experts in clinical trials and epidemiology, so it was fantastic to be able to discuss things either online or in live chats."

Jane Walker
United Kingdom

Read more about our students at:
www.lshtm.ac.uk/study/profiles

PG Certificate, PG Diploma & MSc in Epidemiology

These courses aim to provide epidemiological training for professionals in academic departments, research units, or in the health services. Epidemiology is a key discipline for understanding and improving global health.

Contact

Course Director: Ms Anne Tholen
Academic enquiries:
Anne.Tholen@lshtm.ac.uk
General course enquiries: *www.londoninternational.ac.uk/contact-us*

Fees

FEES IN 2014/15

Postgraduate Certificate	£6,850
Postgraduate Diploma	£9,300
MSc	£11,770

TYPICAL CAREERS

The courses are suitable for those pursuing careers in medical research; public health and community medicine; epidemiological field studies; disease surveillance units; drug/vaccine manufacturers; or disease control in government or NGOs. The courses are also of interest to those who require an understanding of epidemiology, such as medical journalists and scientific officers in government and industry.

OBJECTIVES

The courses aim to develop a comprehensive understanding of the basic concepts and methods in epidemiology together with essential statistical skills, related to the health problems of high, low and middle income countries. The PG Diploma and MSc courses also aim to develop advanced skills in specific applications of epidemiological research methods.

CREDITS AWARDED

Credits will be awarded to all modules (15 credits each) and the project (MSc only – 45 credits) successfully completed. To pass an award successfully the following credits must be gained:

- Postgraduate Certificate – 60 credits;
- Postgraduate Diploma – 120 credits;
- MSc – 180 credits.

COURSE STRUCTURE

The Postgraduate Certificate comprises the four core modules, which are also common to the Diploma and MSc courses: Fundamentals of Epidemiology; Statistics with Computing; Practical Epidemiology; and Writing and Reviewing Epidemiological Papers. The Postgraduate Diploma consists of the four core modules, two further **compulsory** modules plus two elective modules.

The MSc consists of the four core modules, two further **compulsory** modules plus three elective modules. Additionally, students must complete a project and sit a final unseen written examination. After completion of the core modules, Diploma and MSc students may also be eligible for 'blended learning', which allows for the study of up to two modules (from a specified list) in London at the School during the spring or summer terms, in place of distance learning modules.

The courses are self-taught using predominantly computer-based interactive learning materials. Students study at their own pace while tutor support is available through web-based discussion forums within the Virtual Learning Environment, written tutor feedback on assignments and some real-time sessions.

ENTRANCE REQUIREMENTS

See page 112 of this prospectus.

ADDITIONAL REQUIREMENTS

It is essential that all students have regular access to the internet to access supplementary module materials, participate in web-based discussions, access online library resources and submit assignments. Students must have a computer and are responsible for ensuring adequate system maintenance. Students will also require a calculator.

"I am a nurse midwife by training and hold masters degree in public health. I decided to take the MSc course to learn technical skills and knowledge in applied social epidemiology. I am currently working for UNICEF's office in Nicaragua as the Deputy Representative. My project paper analyzed the Demographic and Health Survey in Nicaragua to dissect how intimate partner violence affects newborn and infant mortality, and caregiver's behaviors. I hope to continue research around this theme for evidence-based programming and evaluation. The School has equipped me with skills and tools to move forwards with my mission."

Rinko Kinoshita
Japan

Read more about our students at:
www.lshtm.ac.uk/study/profiles

PG Certificate, PG Diploma & MSc in Global Health Policy

These courses aim to provide students with an in-depth understanding of the planning and delivery of policy responses to global health concerns and issues. They focus on approaches to effective policy-making which contributes to the protection and promotion of population health in a globalising world, at both national and transnational levels.

Contact

Course Director: Dr Preslava Stoeva,
Deputy Course Directors: Dr Catherine Dodds & Dr Emma Hutchinson
Academic enquiries:
Preslava.Stoeva@lshtm.ac.uk,
Catherine.Dodds@lshtm.ac.uk
General course enquiries: *www.londoninternational.ac.uk/contact-us*

Fees

FEES IN 2014/15

Postgraduate Certificate	£6,850
Postgraduate Diploma	£9,300
MSc	£11,770

TYPICAL CAREERS

The courses are suitable for those seeking positions as policy advisors, policy makers or policy analysts in national, regional or international health organisations, research institutions, NGOs and private consultancies. They will also be suitable for individuals currently working in public health roles who seek a better understanding of how a range of health policy processes work and how they may be best influenced.

OBJECTIVES

By the end of these courses, students will be expected to have established a solid foundation in various theories and practices concerned with global health policy, with a particular focus on an understanding of institutional structures and governance mechanisms that address global health issues. The courses are aimed at those who seek a career in tackling the policy challenges associated with global health. Students should gain a good appreciation of relevant health policy research methods, such as comparative analysis and cross-country learning. They should also be able to apply these analytical and methodological skills to address the multifaceted challenges posed by global health issues.

CREDITS AWARDED

Credits will be awarded to all modules (15 credits each) and the project (optional, for MSc only – 45 credits) successfully completed. To pass an award successfully the following credits must be gained:

- Postgraduate Certificate – 60 credits;
- Postgraduate Diploma – 120 credits;
- MSc – 180 credits.

COURSE STRUCTURE

The Postgraduate Certificate comprises the four core modules, which are also common to the Diploma and MSc courses: Issues in Global Health Policy; The Economics of Global Health Policy; The Politics of Global Health Policy; and Environmental Change and Global Health Policy. The Postgraduate Diploma consists of the four core modules plus four elective modules. The MSc consists of the four core modules plus five elective modules and either a project report or three further elective modules. After completion of the core modules, Diploma and MSc students may also be eligible for the 'blended learning option', which allows for the study of up to two modules in London at the School during the spring or summer terms, in place of distance learning modules.

ENTRANCE REQUIREMENTS

A minimum one year's work experience and a first or second class honours degree or the equivalent, from a university or other institution acceptable to the University of London, in:

EITHER a scientific subject such as: biology, medicine, nursing, or pharmacy;

OR a social science subject.

ADDITIONAL REQUIREMENTS

The core module materials are primarily delivered using interactive CD-ROM materials. Students are also expected to contribute to tutor-supported online discussion forums, where they further share and extend their learning with peers. It is essential that all students have regular access to the internet to access the module materials, engage with readings and activities for learning sessions within the module, participate in web-based discussions, access online library resources and submit assignments.

"The ingredients for the "cake I am baking" at the School are a vivid interest in other cultures and languages, a strong humanitarian drive and exposure to high level health advocacy and nation-wide health projects management, as first lady of Georgia between 2004 and 2013. The School was the perfect choice for me: I am studying at a pace of three modules a year and even had the chance to do two modules in London. I especially encourage people like me (in my forties) with a lot of practice who wish to change career, to apply."

Sandra Roelofs
Georgia

Read more about our students at:
www.lshtm.ac.uk/study/profiles

PG Certificate, PG Diploma & MSc in Infectious Diseases

These courses aim to provide a broad understanding of infectious diseases through the core modules in public health, biostatistics and epidemiology, and the biology and control of infectious diseases which are taken by all students, together with the subsequent opportunities for specialised study in areas of the student's own choice. Most of the students are in-service health professionals working for example as doctors or laboratory staff, who take the courses in order to acquire new knowledge in infectious diseases, or to update their current expertise.

Contact

Course Directors: Dr Patricia Gorak-Stolinska, Dr Jackie Cliff
Academic enquiries: *distance@lshtm.ac.uk*
General course enquiries: *www.londoninternational.ac.uk/contact-us*

Fees

FEES IN 2014/15

Postgraduate Certificate	£6,850
Postgraduate Diploma	£9,300
MSc	£11,770

OBJECTIVES

The study of Infectious Diseases will provide students with a solid foundation in this area, enabling them to understand the role of biology of infective agents and host on the outcome of infection.

They will also be able to use this knowledge in combination with epidemiological and public health approaches to develop rational strategies for the control and treatment of infection.

CREDITS AWARDED

Credits will be awarded to all modules (15 credits each) and the project (optional, for MSc only – 45 credits) successfully completed. To successfully pass an award the following credits must be gained:

- Postgraduate Certificate – 60 credits;
- Postgraduate Diploma – 120 credits;
- MSc – 180 credits.

COURSE STRUCTURE

The Postgraduate Certificate comprises the four core modules, which are also common to the Diploma and MSc courses: Principles of Biostatistics and Epidemiology; Principles of Biology; Biology of Infectious Diseases; and Control of Infectious Diseases.

The Postgraduate Diploma consists of the four core modules plus four elective modules.

The MSc consists of the four core modules plus either eight elective modules or five elective modules and a project report.

After completion of the core modules, Diploma and MSc students may also be eligible for the 'blended learning option', which allows for the study of up to two modules (from a restricted list) in London at the School during the spring or summer terms, in place of distance learning modules.

ENTRANCE REQUIREMENTS

See page 112 of this prospectus.

ADDITIONAL REQUIREMENTS

The Infectious Diseases modules are delivered through provision of study guides or interactive CD-ROMs supplemented with additional readings. It is essential that all students have regular access to the internet to access supplementary module materials, participate in web-based discussions, access online library resources and submit assignments. Students must have a computer and are responsible for ensuring adequate system maintenance. Students will also require a calculator.

"The opportunity to study in one of the best schools in the world was humbling. The School has an outstanding reputation and I know it will serve to boost my skills as a researcher of infectious diseases. My experience as a distance learner has been both challenging and enriching. Being able to synthesise the study concepts largely on my own has given me confidence in my ability. This is not to underestimate the great support we have received from tutors. To get personalised feedback on my formative assignment was definitely something I had not received for most part of my studies."

Patience Kerubo Kiyuka
Kenya

Read more about our students at:
www.lshtm.ac.uk/study/profiles

PG Certificate, PG Diploma & MSc in Public Health

These courses aim to provide students with the knowledge and skills to contribute to the improved health of populations and particular groups within them through the promotion of health and prevention of diseases; the development and evaluation of care practices; and the investigation and control of environmental threats to health. Students are instructed in the development, use and critical evaluation of conceptual models, evidence, methods of analysis, and practical interventions.

Contact

Course Director:
Dr Rosalind Plowman
Academic enquiries:
distance@lshtm.ac.uk
General course enquiries: *www.londoninternational.ac.uk/contact-us*

Fees

FEES IN 2014/15

Postgraduate Certificate	£6,850
Postgraduate Diploma	£9,300
MSc	£11,770

OBJECTIVES

By the end of these courses, students should be able to demonstrate their ability to apply knowledge of the core disciplines of public health, consisting of statistics; epidemiology; health economics; and social research, to real world health problems.

CREDITS AWARDED

Credits will be awarded for all elements successfully completed: 10 credits for each core module; 15 credits for Public Health elective modules; and 45 credits for the project (optional, MSc only). To pass an award successfully, the following credits must be gained:

- Postgraduate Certificate – 60 credits;
- Postgraduate Diploma – 120 credits;
- MSc – 180 credits.

COURSE STRUCTURE

The Postgraduate Certificate comprises the **four compulsory** core modules, which are also common to the Diploma and MSc courses: Basis Statistics for Public Health and Policy; Basic Epidemiology; Introduction to Health Economics; and Principles of Social Research. Additionally, all students take two further core modules (for MSc students following a particular subject stream, one of these additional core modules is **compulsory**).

The Postgraduate Diploma consists of the **four compulsory** core modules, two further core modules plus four elective modules.

The MSc consists of the **four compulsory** core modules, two further core modules plus either eight elective modules or five plus a project report. To gain an MSc with a particular stream (Environment and Health; Health Promotion; Health Services Management; or General), students must complete the relevant **compulsory** module for that stream.

After completion of the core modules, Diploma and MSc students may also be eligible for the 'blended learning option', which allows for the study of up to two modules (from a restricted list) in London at the School during the spring or summer terms, in place of distance learning modules.

ENTRANCE REQUIREMENTS

In addition to the requirements specified on page 112, applicants should have a minimum of one year's work experience.

ADDITIONAL REQUIREMENTS

The Public Health modules are primarily delivered using textbooks, supported by supplementary readings and exercises. It is essential that all students have regular access to the internet to access the supplementary module materials, participate in web-based discussions, access online library resources and submit assignments. Students must have a computer and are responsible for ensuring adequate system maintenance. Students will also require a calculator.

APHEA Agency for Public Health Education Accreditation

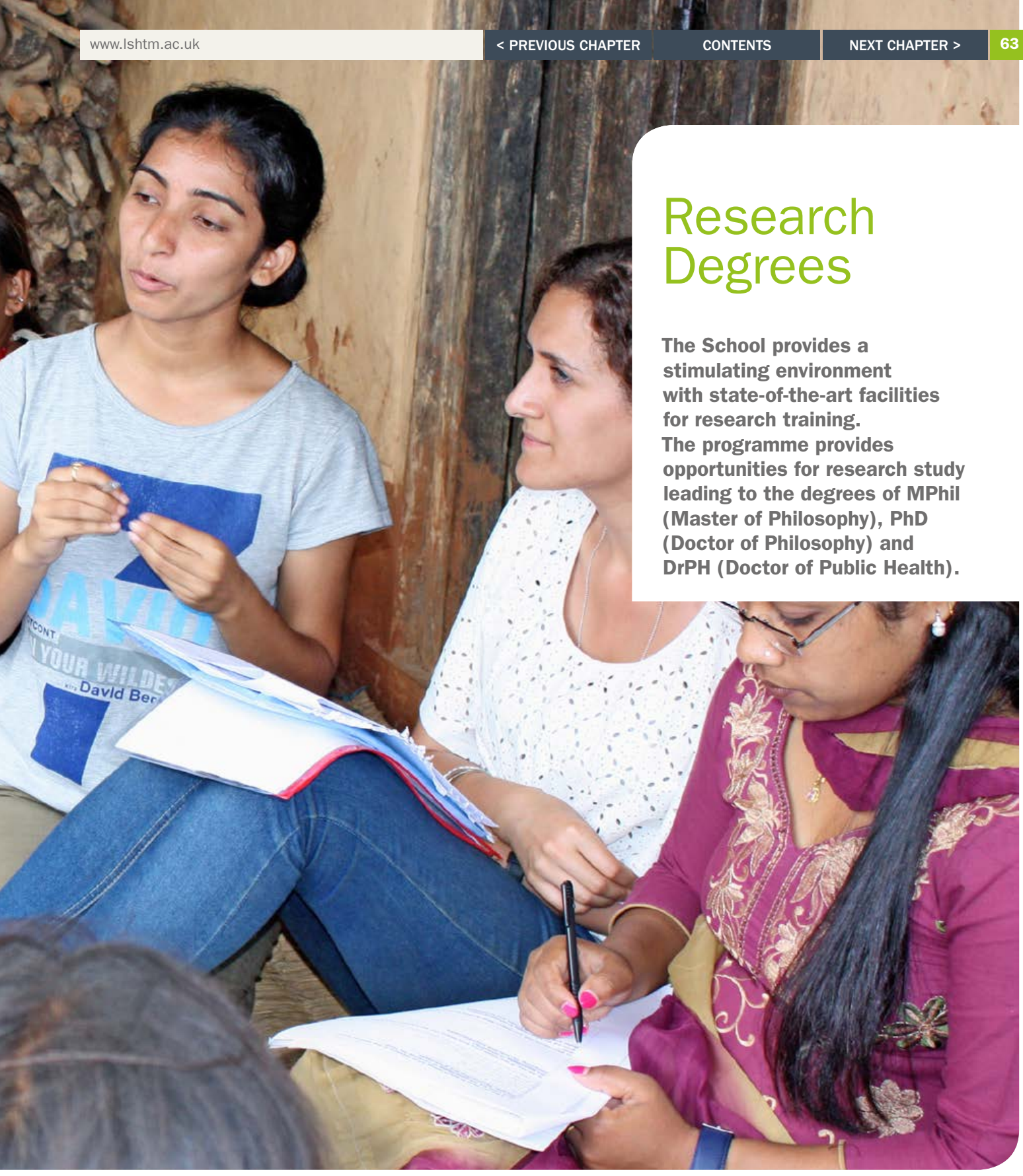
"There are a number of Public Health challenges in my country. To deal with those problems you need well-trained people to address such issues. The MSc distance learning programme allows you to study and work at the same time. That gives you an opportunity to apply what you are learning directly to your work. At the moment I'm working in Malawi, but I also want to work in South Africa and other countries. Having the Master's degree has given me an advantage – I'm able to compete globally for these positions."

Nkhafwire Mkandawire
Malawi

Read more about our students at:
www.lshtm.ac.uk/study/profiles

Opened in 2010, the School's Tavistock Place buildings house the Faculty of Public Health and Policy.

Focus groups on food preparation and hygiene, Nepal. Photo courtesy Lauren D'Mello-Guyett.



Research Degrees

The School provides a stimulating environment with state-of-the-art facilities for research training.
The programme provides opportunities for research study leading to the degrees of MPhil (Master of Philosophy), PhD (Doctor of Philosophy) and DrPH (Doctor of Public Health).

As a leading institution worldwide for research and postgraduate education in global health, the School offers remarkable depth and breadth of expertise.

Research Degrees (MPhil, PhD, DrPH)

Research in Epidemiology and Population Health

Research in Infectious and Tropical Diseases

Research in Public Health and Policy

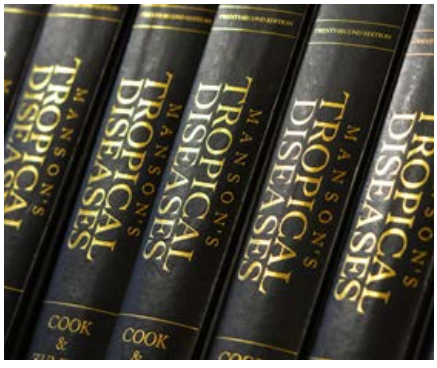
Research Degrees (MPhil, PhD, DrPH)

The School's research training programme provides opportunities for research study leading to University of London degrees of MPhil, PhD and DrPH. There are about 400 research degree students from over 60 countries studying here. The School offers a unique environment in which to undertake research training because of its:

Academic excellence – The high academic standard in all the School's Faculties was recognised in the outstanding result achieved in the UK's Research Assessment Exercise 2008; a peer review exercise to grade all research activities at academic institutions. Across the three subject areas assessed, between 65 to 80 per cent of the research was rated as world-leading or internationally excellent, placing the School among the very top institutions in the UK.

Multidisciplinary ethos – The work of the School is multidisciplinary and its research therefore brings together leading researchers with backgrounds in anthropology, bacteriology, biochemistry, cell biology, clinical medicine, demography, development studies, entomology, environmental health, epidemiology, genetics, GIS/spatial analysis, health economics, health management, health policy, health promotion, history of public health, immunology, infectious diseases, mathematical modelling, medical microbiology, molecular biology, nutrition, operational research, parasitology, pathology, pharmacology, political science, psychology, public health engineering, public health medicine, sociology, statistics, tropical medicine, vector biology and virology.

International character – The School's research degrees programme is greatly facilitated by its international student and staff body and by strong collaborations with over 100 countries around the world.



Children playing in the village of Lete Foho, East Timor. Photo courtesy Ricki E. Kantrowitz.

Strong links – Our extensive links with government health institutions such as Public Health England in the UK and the Centers for Disease Control in the USA, as well as with international organisations such as the World Health Organization, help to ensure that research leads to improvements in public health.

Across the three subject areas assessed, between 65 to 80 per cent of the research was rated as world-leading or internationally excellent, placing the School among the very top institutions in the United Kingdom.

Which research degree: MPhil/PhD or DrPH?

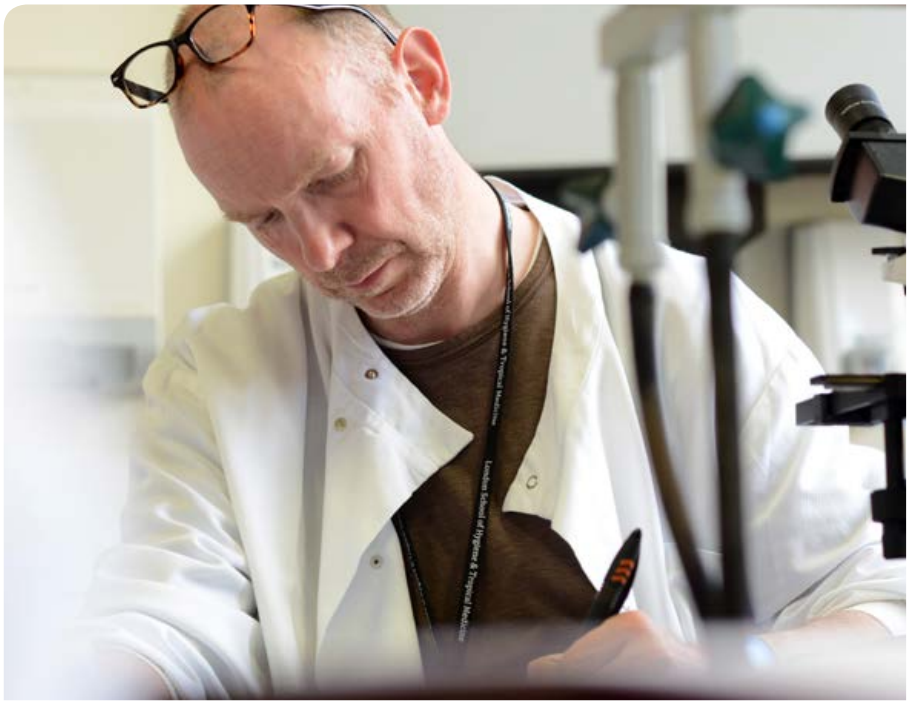
The decision to do a research degree is often exhilarating, but it is important to understand why you want to take one so that you choose the right degree and also to understand what you are letting yourself in for! If you envisage yourself primarily as a professional, but want a high degree of flexibility in your future career, with skills in both management and research, then a DrPH might be the choice for you. If, however, you anticipate a career in which research plays a major role, or you have a particular problem or issue you want to research, then an MPhil/PhD may be what you select.

MPhil and PhD

Aimed at students who anticipate a career in which research plays a major role and who want to focus on an independent piece of research. The British MPhil and PhD research degrees involve the presentation of a thesis on a research topic, which will be in a field appropriate to the student's or their sponsor's needs. Under the supervisor's guidance, students develop the intellectual and technical skills required for research and gain insight into the nature of research, which will provide the foundation for an excellent future research career.

DrPH

Intended for leaders and future leaders in public health who want a flexible career which combines high level leadership, management and research skills. It is aimed at public health professionals who see research as only part of their careers. Entry criteria for the DrPH are the same as for the PhD, except that relevant experience in public health management and/or leadership is required. The standard, rigour and volume of the work are of doctoral level, but appropriate to the career development of senior public health professionals and leaders.



Research student experience

The nature of a research degree differs worldwide. In the UK the main emphasis of a PhD is on the thesis – and the process of undertaking the research. PhD students may take some taught courses, but these are not part of the degree's examination. However, taught courses are a compulsory element of the DrPH. Each student is assigned to a supervisor, under whose guidance they develop the intellectual and technical skills required for training in their chosen field. Students also have an Advisory Committee which facilitates access to a wider range of staff expertise. The School offers regular seminars to enable students to keep abreast of leading research across the School and to present their work. In addition, research students are encouraged to broaden their training through participation in specialist courses, including those available through the Master's programme, presenting at appropriate national and international meetings, and involvement in topic-specific journal clubs. The international nature of the School's staff and student body provides an excellent opportunity to mix with people from different backgrounds and experiences in a stimulating multicultural environment. The School seeks to provide appropriate facilities to match its status as an international centre of research excellence. The Library collections are extensive, every student has computing facilities with access to a state-of-the-art computing network, and research laboratories are well equipped.

Full-time and part-time study

About 60 per cent of research degrees students study full-time and 40 per cent part-time. The School requires students who apply for part-time study to be available to study for at least two days per week.

A letter from your employer is required to confirm that at least two days per week will be permitted for time to be spent on work for the research degree.

Management of research training

A strong management structure underpins the research degrees programme to ensure that students' needs are met and that academic standards are maintained. The School has a Dean of Studies, together with designated staff in Faculties and research departments, to manage and develop the School's programme. There are School guidelines on matters such as the acceptance of new students and the appointment of supervisors, to ensure that all students have adequate attention and support. Codes of practice based on School and Faculty policy and procedures exist to support the programme. The student and the supervisor share responsibility for the success of research training, and students are guided in this during their studies: *www.lshtm.ac.uk/study/research.*

Research skills training

Work leading to the award of a research degree is intense. During their studies, students will:

- develop expertise in the analytical and research skills relevant to their discipline;
- be able to place their body of learning within a wider context;
- critically analyse their own and related work;
- gain broader transferable skills to help them prepare for their career.

In addition to the intense research training provided through one-to-one supervision and, where appropriate, coursework, the School offers comprehensive training in:

- skills that are necessary for students' research studies;
- general, transferable and employment related skills.

Research students and supervisors will regularly identify specific skills training needs. Students are encouraged to learn as much as they can whilst at the School and to take the opportunity to enhance their skills. By the time students submit their thesis, they will be experts in their chosen areas of study and well prepared for their subsequent careers.

A strong management structure underpins the research degrees programme to ensure that students' needs are met and that academic standards are maintained.

Research study leave

Research students do not need to spend the entire period of study in London. Many students carry out data collection or do fieldwork away from the School in their home country or another institution. Such periods away from the School, called Research Study Leave, can enrich a student's experience. Students who are planning to do fieldwork should be aware that funding for these costs is not covered through tuition fees and must be paid separately. Depending on the nature of the project, these costs could include international travel, local travel, accommodation, and costs of data collection (for example, household surveys, translator, focus group discussion moderator, data entry, etc.). For students supported by a scholarship, this may include limited funds for fieldwork, but prospective students should confirm this with the funding body. Other students may need to secure funding through project grants submitted to international or national funding bodies. Although arrangements vary by funding source, students should be aware that decision times may be considerable. These factors should be taken into account when proposing a research topic and planning a study schedule.

Research training opportunities

The School's wide-ranging research programmes examine ways of improving and promoting health and health services and investigate the aetiology, diagnosis and prevention or control of both communicable and non-communicable diseases. Basic laboratory research aims to improve understanding of the molecular mechanisms of host-pathogen interactions, and more applied work investigates diagnostic methods and therapeutic intervention. Research covers a wide range of topics and areas, including:


Tavistock Place

- global diseases (e.g. hepatitis, measles, HIV/AIDS, cardiovascular and respiratory diseases);
- tropical diseases (e.g. malaria, schistosomiasis and leishmaniasis);
- environmental and behavioural risk factors (e.g. smoking, air pollution);
- methodological research (e.g. in biostatistics, economic evaluation, outcomes measurement, longitudinal studies, genetic epidemiology);
- the evaluation of interventions in specific social and health service contexts;
- the content and development of health policy;
- the organisation and delivery of health services in developed and developing countries.

The work of the School is multidisciplinary and therefore much of its research crosses disciplines, departments and faculties.

Entrance requirements

Applicants for MPhil, PhD or DrPH study should have at least one of the following:

- an upper second-class Honours degree of a UK university, or an overseas qualification of an equivalent standard, in a subject appropriate to that of the course of study to be followed;
- a registrable qualification appropriate to the course of study to be followed, in medicine, dentistry or veterinary studies;
- a Master's degree in a subject appropriate to the course of study to be followed;
- a professional qualification obtained by written examination and approved by the University of London as an appropriate entrance qualification for the degree in question. For DrPH candidates, a minimum of two years' appropriate experience and, normally, a Master's degree are required.

School Centres

Many research programmes are carried out in collaboration with institutions outside the UK. Such collaborative work enhances the quality of the training experience and is one of the unique aspects of training at the School. Research training opportunities relating to the School's research programmes are available throughout the Faculties of Epidemiology and Population Health, Infectious and Tropical Diseases, and Public Health and Policy.

The work of the School is multidisciplinary and therefore much of its research crosses disciplines, departments and Faculties. This is enhanced by inter-Faculty centres that focus on specific issues. Current School centres are:

- Bloomsbury Centre for Genetic Epidemiology and Statistics;
- Bloomsbury Centre for Genetic Epidemiology & Statistics
- Centre for Evaluation
- Centre for Global Mental Health
- Centre for Global Non-Communicable Diseases
- Centre for History in Public Health
- Centre for Maternal Adolescent Reproductive & Child Health
- Centre for the Mathematical Modelling of Infectious Diseases
- Centre for Statistical Methodology
- Centre for Tuberculosis
- European Centre on Health of Societies in Transition
- International Centre for Evidence on Disability
- International Diagnostics Centre
- Malaria Centre
- Vaccine Centre

The School is also part of the London International Development Centre, a joint initiative with the School of Oriental and African Studies, Birkbeck and the Institute of Education.

Full details of all centres can be found on our website:
www.lshtm.ac.uk/research/schoolcentres/

Those interested in applying for an MPhil/PhD or DrPH should:

- Review the information about Faculties and research departments to identify a Faculty or research department with interests that match their own. More information is available at: *www.lshtm.ac.uk/faculties*;
- Visit the research pages on the School's website: *www.lshtm.ac.uk/study/research* which provide access to information on current research training opportunities, including examples of research topics;
- Visit the School's funding pages for up-to-date information on funding opportunities, external scholarships and current research topics for which we are offering funding. The information can be found at: *www.lshtm.ac.uk/study/funding*;
- Contact the Faculty research degrees director, DrPH course director, or Department research degrees co-ordinator, as appropriate, for more details;
- Read the General Information section later in this prospectus;
- Email Registry for further information: *registry@lshtm.ac.uk*.

If applying for the DrPH, follow the above steps and for more information or an informal discussion about the programme, email: *DrPHadmin@lshtm.ac.uk*.

The MPhil and PhD

These are aimed at students who anticipate a career in which research plays a major role and who want to focus on an independent piece of research.

Part-time study

The School requires students who apply for part-time study to be available to study for at least two days per week. A letter from your employer is required to confirm that at least two days per week will be permitted for work on your degree. Part-time students who are employed at one of the School's specifically approved institutions may be able to carry out their research at their place of employment under the guidance of a supervisor at the School. Students interested in this method of study should contact Registry for advice.

The British MPhil and PhD research degrees involve the presentation of a thesis on a research topic in a field appropriate to the student's or sponsor's needs and the School's research expertise. All students initially register for an MPhil. Although some students choose to take an MPhil only (2 year programme), most go on to a PhD (3–4 year programme). An option for students without previous academic training in their discipline of interest is to undertake an appropriate MSc as a first step before registering for a PhD. Although the earlier stages of the degree may include some coursework or formal training in research methodology, such work is normally regarded as establishing the necessary grounding for research study, rather than as an integral part of an MPhil/PhD degree. In this respect the British system differs from that at most North American and other European universities, where coursework is regarded as part of the degree and is included in the formal examination process. In particular, in the UK the degree is awarded only on the basis of the work described in the thesis.

The normal course of study leading to a PhD is 3 to 4 years full-time or an equivalent period part-time, with thesis submission required by the end of the fourth year for full-time students and the end of the sixth year for part-time students. Students are not required to spend the entire period of study in London, but must spend the equivalent of at least 9 months full-time in London. Full-time students usually spend the first 9 to 12 months at the School to prepare for an upgrading process from MPhil to PhD in the latter part of the first year. In the second year, students continue laboratory work or carry out data collection/fieldwork either at or away from the School. In the third and/or fourth year, students analyse and write up their research to prepare the thesis for submission. Timings are adjusted accordingly for those studying part-time.

Doctor of Public Health (DrPH)

The DrPH is intended for leaders and future leaders in public health who want a flexible career which combines high level leadership, management and research.

Intellectual and academic standards are as high as that of the PhD, and the programme aims to equip its graduates with the experience to deal with the particular challenges of understanding and adapting scientific knowledge in order to achieve public health gains, as well as the analytical and practical skills required by managers and leaders in public health. Entry criteria for the DrPH are the same as for the PhD except that relevant experience in public health management and/or leadership is required. The rigour and volume of the work are at doctoral level, and appropriate to the personal development of senior public health professionals. Opportunities for undertaking the DrPH programme are available in all the School's Faculties. The DrPH has three main components, each contributing to the award of the degree:

- A taught component;
- An organisational and policy analysis;
- A research thesis.

The taught component

This consists of two compulsory modules taken during the first term. These cover research methods and paradigms, the management of effective communications in public health practice and policy and leadership skills in public health. The modules are taught in London between the end of September and December. Students may, throughout the remainder of the course, choose to study some MSc Modules, for example, to cover particular skills that will assist with other DrPH components. This allows students to tailor the course to their individual backgrounds and needs.

The organisational and policy analysis

Normally taken before carrying out the research project, this gives students the opportunity to observe closely the working of a public health organisation, and from this to develop a better understanding of how to design and develop effective public health organisations. The organisational and policy analysis usually involves 3–6 months' 'fieldwork' observing and analysing operations at the host organisation.

The Organisational and Policy Analysis is assessed on the basis of a written report not exceeding 12,000 words. Progression to the Organisational and Policy Analysis project component is subject to successful completion of the two compulsory core modules and the Organisational and Policy Analysis report is normally submitted before commencing the research project phase of the DrPH programme.

Research thesis

The purpose of the research thesis is to help the student to learn about the role of research in public health practice through undertaking their own piece of high-quality public health-relevant research. The thesis topic can be from any discipline or subject area and the research must be original and make a distinct contribution to the knowledge of the chosen subject. The thesis has a 50,000-word limit, excluding references and appendices. The DrPH thesis must also include a 1,500-word 'Integrating Statement' summarising the student's learning over the three components of the degree and highlighting the links among the components.

Course duration

Full-time DrPH students must register for a minimum of three years. Students are required to be in the School during the first term for the taught course elements and are normally expected to spend time in the School during the preparation of their Organisational and Policy Analysis. Following completion of the Organisational and Policy Analysis, students are also expected to spend some time in the School for the preparation of their research project plans and presentation to a DrPH Review Committee. Thesis submission is required by the end of the fourth year for full-time students and by the end of the sixth year for part-time students.

Faculty of Epidemiology and Population Health

The broad research areas within the Faculty of Epidemiology and Population Health are the identification of the determinants of ill health and the evaluation of interventions to improve global health and to reduce the burden of disease. The spectrum of conditions studied is wide and includes both communicable and non-communicable diseases. The Faculty seeks to conduct research which is methodologically innovative and which provides reliable information for evidence-based decision making in public health. There is a strong emphasis on the translation of findings into programme action and health policy. The Faculty is multidisciplinary and encompasses epidemiologists, medical statisticians, medical demographers, mathematical modellers, nutritionists, social scientists and public health practitioners.

Key information

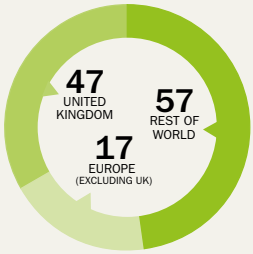
Dean of Faculty: Professor John Edmunds
Research Degrees Directors:
Professor Suzanne Filteau and
Professor Simon Cousens
Email: *eph.frdd@lshtm.ac.uk*

There is considerable expertise in the analysis of routinely collected data, the conduct and analysis of observational studies, clinical trials, large-scale field studies, the design and evaluation of interventions and biostatistical and demographic methodology. Many programmes involve collaboration between departments within the School, and with collaborating researchers throughout the world. Much of the research involves current students, and within the large range of interests represented in the Faculty there is the potential to accommodate and to identify research expertise in most aspects of epidemiology and population health for DrPH and PhD/MPhil studies.

The wide range of scientific interests and the geographic diversity of the Faculty's research projects offer a unique opportunity for prospective research students to participate in the work of a dynamic and stimulating group of internationally renowned researchers. The Faculty is organised into four Departments – Infectious Disease Epidemiology, Population Health, Medical Statistics and Non-Communicable Disease Epidemiology. Research degree students become members of one of these four departments, participating in the full range of the department's academic and social activities. Students are allocated a supervisor, and hence a research department, based on their research interests and disciplinary area. A comprehensive research skills training programme is provided. Meetings and social events are organised at intervals throughout the year to encourage students to get to know each other and to develop a supportive environment.

CREDIT: STEPHANIE BIDOUZE

The number of research degree students in 2013/14 from different regions of the world:



Department of Infectious Disease Epidemiology

Key information

Head of Department: Professor Carine Ronsmans **Research Degree Co-ordinators:** Dr James Lewis, Professor Carine Ronsmans and Dr Heidi Larson
Email: *IDEU.RDC@lshtm.ac.uk*

The Department conducts research on the epidemiology and control of infectious diseases of public health importance and on maternal and neonatal health. Work is carried out in low-, middle- and high-income countries, including the United Kingdom. Research ranges from ecological studies of variations in disease frequency in different populations, through observational case-control and cohort studies, to randomised controlled trials.

This work is complemented by mathematical modelling of the spread of infectious diseases and the impact of control programmes.

The Department has major field research programmes in Malawi, Tanzania, Zambia, Ghana, Brazil and Europe and numerous collaborative projects in Africa, Asia and Latin America.

Major interests are in the epidemiology and control of HIV and other sexually transmitted diseases, tuberculosis and other mycobacteria, malaria and other preventable diseases, respiratory diseases, gastro-intestinal infections and vaccine-preventable diseases.

The Department is home to the MRC funded Tropical Epidemiology Group, and a large research programme on maternal and perinatal health. There is considerable interest in methodological work within the Department, including research on statistical methods, transmission models, genetic epidemiology, immunoepidemiology and the evaluation of large scale public health interventions. There are strong collaborative links with other Departments within the Faculty of Epidemiology and Population Health and the School more generally.

Current research includes:

The Karonga Prevention Study is a large epidemiological research programme covering the whole of Karonga District, a rural area in northern Malawi.

PopART is a major HIV combination prevention trial conducted in Zambia and South Africa led by Professor Richard Hayes. It tests the impact of a strategy that combines community-wide house-to-house voluntary HIV testing and referral for care - consisting of the offer of immediate antiretroviral therapy for all those testing HIV-positive irrespective of immune-status (including for prevention of mother to child transmission), medical circumcision for men who test HIV-negative, and condom promotion - on reducing community-level HIV incidence.

FEMHealth is an EU-funded programme and stands for 'fee exemption for maternal health care'. The project aims to develop new methodological approaches for the evaluation of complex interventions in low income countries and to improve the health of mothers and their newborns.

Evidence for Action is a five-year programme which seeks to generate political commitment, strengthen accountability and improve planning and decision making for maternal and neonatal health in six countries in sub-Saharan Africa.

Project to monitor public confidence in Immunisation Programmes is a project to build an information surveillance system for early monitoring and detection of public concerns around vaccines.

Pneumococcal Conjugate Vaccine Impact Study is a multi-end point, phase IV before-after evaluation of the population impact of 10-valent pneumococcal conjugate vaccine, taking place in Kilifi, Kenya.

EVA-PMDUP is an evaluation of the DFID funded Prevention of Maternal Deaths and Unwanted Pregnancies (PMDUP) Programme being implemented in countries in Africa and Asia. PMDUP aims to increase the provision of service outlets and trained providers in 14 low income countries. This project utilises both quantitative and qualitative research to assess the effectiveness and cost-effectiveness of the PMDUP programme. The consortium will carry out evaluation activities in five countries (India, Zambia, Nigeria, Pakistan and South Sudan) with the main focus of our research activities concentrated on India and Zambia.

The Department is home to the Tropical Epidemiology Group, and a large research programme on maternal and perinatal health.

China Countdown Case Study aims to document and understand trends and socio-economic and geographic inequalities in maternal and newborn mortality and fertility in China over the last twenty years. The focus of this work will be on system inputs and outputs that have enabled progress towards universal access to basic and comprehensive obstetric care in health facilities, particularly for the rural poor and those living in remote areas, and the financing mechanisms that facilitated removal of financial barriers at the point of care.

Department of Medical Statistics

Key information

Head of Department: Dr James Carpenter
Department Research Degree Co-ordinator: Dr Elizabeth Allen
Email: *elizabeth.allen@lshtm.ac.uk*

The Department undertakes broad-based research in applied projects and in statistical methodology. It has established a reputation for being a leading innovative centre for biostatistical methodology relevant to medical research. Much of its work involves extensive and often international collaboration.

The School is a leading international centre for academic medical statistics, and the Department of Medical Statistics is a focus for its excellence in both research and teaching.

Much of the Department's research can be classified under four broad areas: statistical methodology, epidemiological statistics, clinical trials, and pharmaco-epidemiology. This covers a very wide range of applications across medicine and public health, with particular expertise in cardiovascular and neurological diseases.

Current research includes:

Statistical Methodology involves missing data, especially in longitudinal studies; propensity scores and other methods of adjustment for confounders; time-updated

The School is a leading international centre for academic medical statistics, and the Department of Medical Statistics is a focus for its excellence in both research and teaching.

models relating disease events/biomarkers to prognosis; development of user-friendly prognostic risk scores; quality of care scores; allowance for measurement error; developments in sensitivity analyses; small sample inference for mixed models; statistical issues in brain imaging and human growth studies; use of figures in medical journals.

Epidemiological Statistics involves modelling of intermediate outcomes in life-course epidemiology; dealing with missing linkage data; competing risks and multistate models in applications to infant mortality and chronic disease epidemiology; guidelines on reporting of epidemiological studies; methods for grouping quantitative risk factors.

Clinical Trials applied research involves being the independent statistical centre – especially for data monitoring – in major international industry-sponsored trials, trial co-ordination and leadership in public-funded trials, a statistical resource for planning, analysis and interpretation of specific trials, use of large-scale trial databases for investigations of patient prognosis and treatment effects.

Clinical Trials methodological activities include methods for data monitoring, reporting of trials, controversies in trial design including adaptive designs, non-inferiority trials and surrogate endpoints, cross-over trials; qualitative research into views of trial participants, multiplicity of data (e.g. subgroup analyses, composite endpoints, repeated measures) in trials, methods for systematic reviews and statistical methods for the evaluation of complex interventions. Pharmaco-epidemiology applications include collaborations in pharmaco-epidemiology and pharmaco-vigilance, uses of large primary care databases for evaluating specific drug safety issues.

Pharmaco-epidemiology methodological activities include development of signal detection methods in pharmaco-vigilance, guidance on the role of observational studies, (as compared to randomised trials) for evaluation of benefits and harms of drugs, innovative designs in pharmaco-epidemiology e.g. case series methods, the development of hierarchical Bayesian methods and cluster analysis for grouping of medically related events.

Department of Non-Communicable Disease Epidemiology

Key information

Head of Department: Professor Liam Smeeth
Department Research Degree Co-ordinators: Dr Claudia Allemani and Dr Sanjay Kinra
Email: *NCDEU.RDC@lshtm.ac.uk*

The Department conducts research on a large range of non-communicable diseases, addressing many important scientific and public health issues around the world. While epidemiology is the core discipline, we work with statisticians, clinicians, sociologists, demographers and basic biological scientists. Most of our research involves extensive collaborations both across the School and with colleagues in other research institutions around the UK and overseas.

Non-communicable diseases have long been the major causes of mortality and morbidity in high income countries, but low and middle income countries are now beginning to experience epidemics of non-communicable diseases. As a result they have been identified as a high priority by the United Nations, which recently launched a global campaign to reduce the burden of non-communicable disease.

The major groups of non-communicable disease are cardiovascular diseases, cancers, chronic respiratory diseases and diabetes. Each of these is strongly represented in our department together with many other interests including maternal and reproductive health, epidemiology of ageing, kidney disease and genetic epidemiology. Research degrees are possible in any of these areas.

Current research includes:

Cardiovascular disease: studies of biological markers of disease, such as inflammatory and coagulation markers, and the use of genetic variants to establish the causal role of these markers on myocardial infarction and other outcomes such as stroke. Much of this work is based in the British Women's Heart and Health Study which is based at the School. Electronic health records play an increasing role in this area by linking resources such as the General Practice Research Database to address research questions in managing cardiovascular disease.

Cancer: there is considerable interest in explaining differences in incidence, mortality and survival rates for various cancers between different socio-economic groups and nationalities including a large study of South Asians in the UK. Cancer aetiology and screening are also a major interest, including studies of mammographic density as a marker for breast cancer, the effect of vitamin D supplementation on cancer risk, and identification of genetic markers for breast cancer.

Diabetes and Obesity: studies are closely related to those of cardiovascular disease and focus on identifying risk factors and biomarkers, particularly in the developing world. There are strong links with the South Asian Network for Chronic Disease through which differences in risk between urban and rural dwellers and potential interventions in the developing world are being studied. Childhood obesity is of increasing interest, including its potential long-term impact on health and the effect of maternal obesity on pregnancy and child outcomes.

Alcohol: we also conduct research on the effects of alcohol on non-communicable disease, particularly in Russia. Genetics is a common interest across the department as most diseases have an inherited risk.

Our research includes identification of genes that influence risk, statistical methods

The Department conducts research on a large range of non-communicable diseases, addressing many important scientific and public health issues around the world.

for analysing new types of genomic data, and the use of genes as surrogates for biomarkers and environmental exposures in observational studies.

Department of Population Health

Key information

Head of Department: Dr Phil Edwards
Department Research Degree Co-ordinators: Dr Cari Free, Dr Rebecca Sear and Dr Raghu Lingam
Email: *DPH.RDC@lshtm.ac.uk*

The Department of Population Health aims to increase global access to effective treatments and public health interventions, and is a centre of excellence in the determinants and consequences of population change. The department is home to the Nutrition Group, the Centre for Global Mental Health, the Maternal & Child Health Intervention Research Group, the Clinical Trials Unit and the Population Studies Group. The department has strong links with many overseas research groups.

Current research includes:

Nutrition Group: nutrition group: addressing major nutrition and food-related problems that affect human development, with expertise in under-nutrition, immunity and infection, nutritional genetics, nutrition-related chronic diseases, and agriculture and health. The Medical Research Council International Nutrition Group is based in the Nutrition Group, and has a major research centre at Keneba in The Gambia. Other Nutrition Group projects include NUSTART (Nutritional Support for Africans Starting Antiretroviral Therapy) which will establish whether nutritional supplementation improves survival in Africans with HIV/AIDS and malnutrition.

An emerging emphasis is research on the links between agriculture, food, nutrition and health. Much of this research is conducted by the Leverhulme Centre for Integrative Research on Agriculture and Health in which several Nutrition Group members play leading roles.

Global Mental Health: conducting research and capacity building in policy, prevention, treatment and care for people living with mental, neurological & substance use disorders. A major research programme is PRIME which aims to generate world-class research evidence on the implementation and scaling up of treatment programmes for priority mental disorders in primary and maternal health care contexts in low resource settings.


Hospital waiting area in Mukono, Uganda. Photo courtesy Bianca D'Souza.

Maternal & Child Health Intervention Research: conducting intervention trials to improve maternal, new born & child survival, growth and development. Examples of our work include definitive trials of vitamin A supplementation, cluster randomised trials to improve child survival in Ghana, Uganda, Mozambique, India and Pakistan, and collaborative work with the global organisations including WHO and Gates Foundation to tackle gaps in evidence in order to inform and change public health policy around maternal, newborn and child health.

Clinical Trials Unit: a fully registered Clinical Trials Unit under UK Clinical Research Collaboration, co-ordinating and conducting clinical trials in low, middle and high income countries. Examples of our work include the CRASH2 trial, which demonstrated that tranexamic acid safely reduces mortality in bleeding trauma patients. The WOMAN trial is ongoing and will examine the effect of tranexamic acid on mortality in women with post-partum haemorrhage. The HALT-IT trial is a large international randomised control trial of tranexamic acid for the treatment of severe gastrointestinal bleeding.

Population Studies group: conducting research in reproductive & sexual health, the demographic impact of AIDS in Africa, fertility transition, family demography, health & ageing, and methodological work on measurement of health and technical demographic analysis. A major research collaboration is the network for Analysis of Longitudinal, Population-based data on HIV/AIDS in Africa.

"My research focuses on exploring people's engagement with health care providers, primarily in Egypt and the Middle East, by assessing whether seeking care and the choice of provider, are related to socio-economic position. I have found the School to be a very supportive and nurturing institution. Students are encouraged to learn from each other's experiences and approaching senior faculty members for advice and mentorship has been extremely rewarding. After completing my degree, I aim to continue on an academic pathway. I cannot imagine a better start in this career than the last four years at the School."

Lenka Benova
Slovakia

Read more about our students at:
www.lshtm.ac.uk/study/profiles

The Department of Population Health aims to increase global access to effective treatments and public health interventions, and is a centre of excellence in the determinants and consequences of population change.

Staff profiles

Dr Mary De Silva
from the Department of Population Health talks about here career and research:

I have a real passion for global health research, and the School is the perfect place to nurture that passion. I am what is termed an 'LSHTM lifer' – I have been here since 1999 when I studied for the MSc Epidemiology, coming straight from an undergraduate degree in Biological Anthropology at Cambridge. The minute I walked through the doors and met the incredible diversity and experience of my fellow students, I knew this was the place for me. I stayed on as a Research Fellow, gained a scholarship to do a PhD in global mental health, and am now a Senior Lecturer and Deputy Director of the Centre for Global Mental Health (*www.centreforglobalmentalhealth.org*).

I feel incredibly lucky to have found an area of research that not only fascinates me, but is also in my opinion one of the biggest problems that global health has to solve: the huge number of people in low- and middle-income countries who experience mental health problems but do not receive even the most basic care for those problems. My research revolves around developing, evaluating and scaling up mental interventions and strengthening health systems to deliver effective mental health services in low-resource settings. My work is hugely varied, ranging from testing interventions in randomised controlled trials, to developing methods to evaluate real-world mental health programmes, to doing advocacy work to persuade policy makers to invest in mental health services.

Global mental health is thriving at the School: together with Kings Health Partners we have established the Centre for Global Mental Health, the largest group of researchers working on this problem globally. We have also set up the Mental Health Innovation Network (*mhinnovation.net*), which networks researchers with each other and with policy makers. Most importantly, we have established the MSc Global Mental Health, which nurtures the next generation of global mental health researchers, policy makers and leaders.

Dr Jen Rogers
from the Department of of Medical Statistics talks about her career and research:

I am a researcher in Medical Statistics with a special interest in the development of novel statistical methodologies in clinical trials. I have a BSc in Mathematics and Statistics and an MSc in Statistics from Lancaster University. I completed my PhD at the University of Warwick, where I developed a new class of statistical models that jointly analyse pre-randomisation seizure rates and post-randomisation survival times in clinical trials for epilepsy.

In 2011 I joined the School as a Research Fellow and was promoted to Lecturer in 2013. I was awarded a three year NIHR Post-Doctoral Fellowship in September 2013 for a project titled: 'Analysis of Recurrent Events in Clinical Trials'. This project will see me developing new statistical models for the analysis of recurrent hospitalisations in heart failure in the presence of dependent censoring. It will involve investigating the relationship between recurrent heart failure hospitalisations and the competing risk of cardiovascular death and considering new statistical methodology that models the dependency structure between recurrent hospitalisations. Additionally, I am a module leader and lecturer for Probability, which is a core module of the MSc Medical Statistics.

I am an active member of the Royal Statistical Society and am a committee member for its Young Statisticians Section. I am a STEM ambassador for STEMNET, a speaker for Maths Inspiration and have been appointed the Royal Statistical Society Guy Lecturer for 2014, which involves preparing a lecture aimed at sixth form and GCSE students that draws out the importance and widespread applicability of statistics in a serious but accessible and entertaining way. I have had a number of media interactions as an expert statistician for Mystery Map (ITV1) and Long Live Britain (BBC1). I also took part in the Voice of the Future 2013, hosted by the Select Committee for Science and Technology in the House of Commons, which was broadcast by BBC Parliament.

Faculty of Infectious and Tropical Diseases

The Faculty of Infectious and Tropical Diseases encompasses laboratory-based research as well as research on the clinical and epidemiological aspects of infectious and tropical diseases. The range of disciplines represented is very broad, encompassing a truly 'bench to bedside' portfolio that ranges from immunology, molecular biology and drug discovery to vaccine design, vector control and clinical trials. Interdisciplinary research is a feature of much of the activity. The spectrum of diseases studied is wide, with major groups focussing mainly on three important categories of infectious agents: protozoa (e.g. malaria, trypanosomiasis and leishmaniasis), bacteria (e.g. tuberculosis, trachoma and diarrheal diseases) and viruses (e.g. HIV/AIDS and bluetongue).

Key information

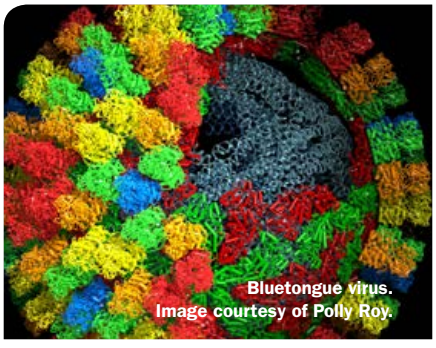
Head of Faculty: Professor Brendan Wren
Research Degrees Director: Dr David Baker
Email: *david.baker@lshtm.ac.uk*

The Faculty is organised into four research departments comprising: Clinical Research; Disease Control; Immunology and Infection; and Pathogen Molecular Biology. The Faculty has strong overseas links which provide a basis for field studies and international collaborations in developed and developing countries for DrPH and PhD students interested in global health. The Faculty provides a stimulating environment for research and postgraduate teaching at the doctoral level.

Funding opportunities for research degrees training include a Wellcome Trust-funded clinical fellowship programme in international health, Medical Research Council Studentships, Biotechnology and Biological Sciences Research Council Doctoral Training Partnership studentships held jointly with University College London (UCL), King's College, Birkbeck and the Royal Veterinary College and also a joint studentship programme with the Bloomsbury Colleges.

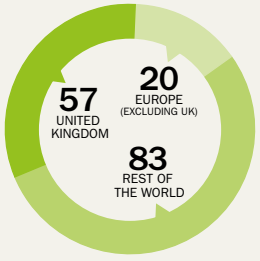
In recent years substantial investment has provided refurbished and modern facilities for state of the art laboratory based research specialising in category 3 pathogens. During the last year the Bloomsbury Research Institute has been established. This brings together scientists focused on pathogen research from both UCL and the School. The mid-term aim is to open a new building to facilitate delivery of the vision of this new partnership, focused on the interface of basic and clinical research on pathogens.

The wide range of scientific interests and the geographic diversity of the research projects at the School offer a unique opportunity for prospective research students to participate in the work of a dynamic and stimulating group of internationally renowned researchers. The Faculty welcomes applications from students wishing to study for either a PhD or DrPH. Research students become members of one of the four Research Departments, participating in the full range of the Department's academic and social activities. Students are allocated a supervisor, and hence a Research Department, based on their research interests and disciplinary area. A comprehensive research skills training programme is provided. Meetings and social events are organised at intervals throughout the year to encourage students to get to know each other and to develop a supportive environment.



Bluetongue virus. Image courtesy of Polly Roy.

The number of research degree students in 2013/14 from different regions of the world:



Department of Clinical Research

Key information

Head of Department: Professor Philippe Mayaud
Department Research Degree Co-ordinators:
Dr Ron Behrens
Email: *ron.behrens@lshtm.ac.uk*

Dr Martin Holland
Email: *martin.holland@lshtm.ac.uk*

The research interests of the Department of Clinical Research focus on diseases of public health importance in resource constrained settings. The Department has particular strengths in mycobacterial disease (tuberculosis and leprosy), malaria, sexually transmitted infections, HIV/AIDS, eye health, disability, and tropical and travel medicine.

Activities include trials of new therapies, vaccines and educational interventions; population and clinic-based epidemiological studies; the development and evaluation of new diagnostic tests; studies investigating the immunological and molecular correlates of pathogenesis and protective immunity, and genetic polymorphisms conferring protection or susceptibility to infectious diseases; health services research which aims to identify the most efficient and cost-effective way to deliver health care; and health policy analysis.

Several members of the Department practise clinical medicine at the Hospital for Tropical Diseases, in purpose-built accommodation within the University College Hospitals NHS Foundation Trust, five minutes' walk from the School. However, our research is multidisciplinary, extending from basic laboratory science (immunology and molecular biology) through clinical medicine to epidemiology, public health and economics. We collaborate extensively with other Departments in the School, in the UK and overseas, especially in Africa, but also in Asia and South America. Department staff are based in The Gambia, Uganda, Tanzania, Zambia, Malawi, South Africa and India, and we have research degree students based in many other countries.

Our research is multidisciplinary, extending from basic laboratory science (immunology and molecular biology) through clinical medicine to epidemiology, public health and economics.

Current research includes:

Wellcome Trust Bloomsbury Centre for Clinical Tropical Medicine and the Wellcome Trust Clinical PhD Programme in International Health: fellows based in Uganda, Malawi, Tanzania, South Africa, Zambia and India work on topics including HIV, tuberculosis, Herpes simplex virus type 2 (HSV-2), trachoma, micronutrients, mental health and helminth infections.

ACT Consortium: international collaboration on malaria with activities in Ghana, Tanzania, Yemen and Afghanistan. HIV and related infections: work on the interaction between HIV infection and other sexually transmitted infections has focused particularly the effect of HSV treatment on HIV transmission; research interventions to prevent human papilloma virus and cervical cancer among women living with HIV.

HIV infection and tuberculosis: research in Zambia, Malawi and South Africa, including trials of population-based tuberculosis case finding; novel strategies using isoniazid preventive therapy; studies of new diagnostics for tuberculosis; and novel strategies to reduce early mortality among people with HIV. We are also involved in studies investigating the role of antiretroviral therapy in preventing both HIV and tuberculosis.

Leprosy: work includes research into the pathogenesis and treatment of leprosy reactions, interaction with HIV, and investigation of new drugs, with studies in India, Nepal, Ethiopia and Brazil.

Eye health: projects ongoing in India, Nepal, Ethiopia, Nigeria and Brazil, include work on causes of blindness, retinopathy of prematurity, and the effect of services for children with impaired vision.

Trachoma: work in The Gambia, Tanzania and Guinea Bissau ranges from studies of pathogenesis to interventions to control and eliminate this disease.

Department of Disease Control

Key information

Head of Department: Dr Mark Rowland
Department Research Degree Co-ordinators:
Dr James Logan
Email: *james.logan@lshtm.ac.uk*

Dr Jeroen Ensink
Email: *jeroen.ensink@lshtm.ac.uk*

Dr Rachel Pullan
Email: *rachel.pullan@lshtm.ac.uk*

The Department of Disease Control focuses on the control of diseases that are insect-borne, water-borne or associated with poor hygiene – mostly in developing countries. Much of the research can be categorised as evaluating disease control interventions; investigating implementation strategies – including working with the private sector; understanding the factors underlying household behaviour in relation to family health; or determining how control resources can be targeted most efficiently. Particular attention is paid to research directed at current health policy issues, including the gap between policy and practice.

Current research includes:

Environmental Health: the Department's Environmental Health Group plays a leadership role in research and operational support for hygiene behaviour change, household water supply and sanitation. Three key programmes which contribute to the work of the Group are the Department for International Development-funded consortium Sanitation and Hygiene Applied Research for Equity (SHARE), the Hygiene Centre (Unilever) and the improved sanitation randomised controlled trial jointly funded by the Bill & Melinda Gates Foundation and International Initiative for Impact Evaluation (3ie).

Sanitation: SHARE consortium works in regions of Africa and Asia with historically low levels of sanitation to generate rigorous policy relevant research with the international and local institutes and NGOs.

Handwashing: the Hygiene Centre collaborates with the private sector to make hand washing central to soap marketing in Africa and Asia, creating large scale and sustainable solutions to a pressing health

problem and to develop resource materials for handwashing promotion.

Malaria Control: ongoing projects include: research capacity strengthening in Africa through the work of the Malaria Capacity Development Consortium; novel approaches to combating malaria in pregnancy in Africa and India; a number of projects which develop and evaluate delivery mechanisms to improve access, targeting, safety and quality of antimalarials; studies of Seasonal Malaria Chemoprevention in West Africa; and support for the large Phase 3 clinical trial study of the RTS,S malaria vaccine in children.

Applied Entomology: the Arthropod Control Product Test Centre *arctec* provides access to the department's valuable mosquito colonies and in-house facilities for testing of repellents, insecticides and after-bite treatments. The PAMVERC alliance between the School and African partners works in partnership with WHO and manufacturing industry on product development and evaluation under laboratory and semifield conditions and community trials. The entomological field sites in Tanzania, Benin, The Gambia and Kenya are involved in various vector-borne disease control trials.

Meningococcal Meningitis: studies investigating how meningococcal meningitis is spread in Africa and the impact of a new serogroup meningococcal A vaccine on reducing transmission (MenAfriCar Consortium). Staff are also evaluating the impact of a pneumococcal conjugate vaccine into the routine EPI programme of The Gambia and a new pneumococcal protein vaccine.

IDEAS (Informed Decisions for Actions): a project funded to 2015 by a grant from the Bill & Melinda Gates Foundation which aims to improve the health and survival of mothers and babies in Africa and Asia through generating new evidence to inform policy and practice.

The Wolfson Centre is a self-contained imaging suite housing a confocal microscope, two widefield imaging systems and laser capture microdissection.

Department of Immunology and Infection

Key information

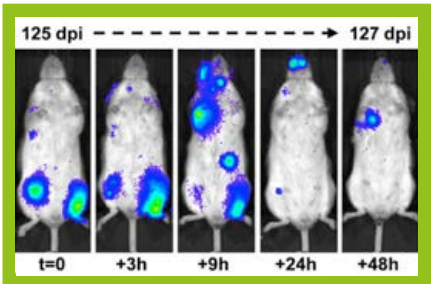
Head of Department: Dr Colin Sutherland
Department Research Degree Co-ordinator: Dr John Raynes
Email: *john.raynes@lshtm.ac.uk*

Research in the Department centres on analysis of the host response to infection at the molecular, cellular and population levels. Our goals are to develop a greater understanding of the basic mechanisms of pathogenesis of infectious diseases and immunity to infection, and to apply this knowledge to the development of immunological, chemical or other interventions and the identification of correlates of immune status and disease susceptibility. Our work involves application of state-of-the-art cellular, molecular and genetic approaches to the in-vitro and in-vivo analysis of pathogen-host cell interactions, to the study of infection and immunity at the population level in disease endemic areas, and to the use of epidemiological and mathematical tools to understand pathogen biology and host-pathogen interactions.

Research groups share large, modern, multi-user laboratories and office space in the main Keppel Street building. The Department houses an extensive, recently refurbished ADCP3 research facility, a flow cytometry suite, Luminex, ABI Prism 7000 (Taqman) and BiaCore facilities and the Wolfson Centre for Cell Biology. The Wolfson Centre is a self-contained imaging suite housing a confocal microscope, two widefield imaging systems and laser capture microdissection. The Department is also part of the Bloomsbury Research Institute, providing collaborative links and shared equipment with University College London.

Current research includes:

- the role of innate and adaptive responses in resistance to the bacterial pathogens, *Mycobacterium tuberculosis* and *Burkholderia pseudomallei*;
- correlates of protection against tuberculosis and studies of BCG vaccination;
- human CD8+ T-cell responses to mycobacterial antigens and synthetic peptides;



The dynamic nature of chronic Chagas disease. An individual mouse was imaged 125 days after infection with bioluminescent Trypanosoma cruzi, and then re-imaged at the times shown (hours).The bioluminescent foci identify infected host cells being trafficked to peripheral sites in the mouse. ***Prof John Kelly***

- use of whole blood assays inimmuno-epidemiologyl;
- innate and adaptive immunity to malaria including activation of natural killer cells, cytokine regulation in clinical immunity and immunopathology;
- evaluation of vaccine-induced immune responses and the interplay between innate and adaptive immunity;
- anti-malarial antibodies as a marker of malaria exposure & assessment of the use of sero-epidemiology to monitor and target malaria control measures;
- transmission of *Plasmodium falciparum* malaria and effects of antibody responses to gametocyte-infected erythrocyte surface antigens and gamete antigen variability;
- *P. falciparum* gametocyte sequestration and development and gametocyticidal drug therapy;
- impact of concomitant viral, bacterial or protozoal infections with intestinal helminth infections on induction of mucosal immune responses, immunopathology and T cell regulationl;
- the identification and evaluation of novel drugs and drug delivery systems for schistosomiasis, leishmaniasis, trypanosomiasis and malaria;
- innate immunity to extracellular pathogens;
- intracellular trafficking and secretory pathways of cells of the immune system;
- innate and adaptive immunity to leishmaniasis, regulation of immunity by the arginase pathway;
- host–parasite–vector interactions in *Leishmania* transmission.

Department of Pathogen Molecular Biology

Key information

Head of Department: Professor John Kelly
Department Research Degree Co-ordinator: Professor David Conway
Email: *david.conway@lshtm.ac.uk*

The Department focuses on understanding pathogens and their hosts in the context of improving the control of infectious diseases. We have expertise in molecular biology, virology, bacteriology, protozoology, biochemistry, molecular immunology and genomics. Our long-term goal is to understand the complex and dynamic ways by which pathogens modulate virulence and interact with human and animal hosts. A distinctive feature of the Department is the large number of collaborations that we have with scientists around from the globe, particularly in Africa, South America and South East Asia. We also play a major role in helping to establish strategic partnerships between the School and other major UK institutions. This includes an alliance with the Wellcome Trust Sanger Institute, which builds on a large number of joint projects. An important new initiative has been the formation of the Bloomsbury Research Institute, a joint venture with University College London. Researchers from the Department have a central role in promoting the success of this new initiative. Our mission has been significantly enhanced by the availability of whole genome sequences. The interpretation and exploitation of this basic information is the platform for numerous new avenues of research on pathogenesis, molecular epidemiology and the evolution of virulence. In the longer term our work will help to translate basic research on pathogen biology and genomics into practical applications and will facilitate studies on the structural analysis of virulence determinants and the development of vaccines and antimicrobial agents.

Research projects in the Department are available in a wide range of areas including those which focus on the following diseases:

Malaria: The School has more malaria researchers under one roof than any other institution in Europe. Within the Department, our work covers the interface between the field, the laboratory and the drug-development sector. Prof David Conway's studies on parasite population biology have direct implications for vaccine design and the understanding of acquired immunity. Research by Dr David Baker and Prof Mike Blackman, on intracellular signalling in *Plasmodium falciparum*, has provided new insights into the parasite life-cycle and identified and verified new targets for drug design.

Trypanosomatid infections: Groups in the Department work on Chagas disease (Prof John Kelly), leishmaniasis (Prof Michael Miles) and African sleeping sickness (Dr Sam Alsford), the three major types of human trypanosomatid infection. Major advances that we have made in imaging technology, is providing a research framework that will facilitate rapid progress in a number of areas. These new approaches are being exploited to gain greater understanding of the mechanisms of drug action and resistance, and disease pathogenesis.

Enteric and hospital acquired bacterial infections: Antibiotic resistance is one of the major threats to global public health and a central research focus within the Department. Using whole genome analysis, we are seeking to understand the transmission of resistance within populations of enteric pathogens such as *Clostridium* (Prof Brendan Wren), *Salmonella* (Prof Nick Thomson) and *Shigella* (Dr Stephen Baker). In addition, the Wren group are developing new techniques in glycoengineering and applying them to the design of novel vaccines.

Tuberculosis: Dr Taane Clark is studying Mycobacterium tuberculosis using whole genome sequencing, to provide new insights into pathogen population structure, disease transmission and drug-resistance. Hypotheses on disease susceptibility generated by genome-wide association studies are being explored by Prof Martin Hibberd using predictive infection models. Linkage between experimental and genomic approaches is key to understanding the dynamic molecular interactions that underpin disease pathology.

Bluetongue virus infection: Prof Polly Roy has used multi-disciplinary approaches to provide a detailed understanding of Bluetongue virus (BTV), a major veterinary pathogen and model for a range of related human and animal viruses, including human rotavirus. Advances include the first reverse genetics system for BTV (synthesis of infectious virus solely from synthetic genes) and the establishment of systems to reconstitute infectious BTV particles. Both technologies have the potential for designing highly efficacious vaccines.

"I wanted high-quality training in tropical disease research, and one that is not purely laboratory research but a combination of field and laboratory-based research. I always believe in tropical infectious disease research that is directly linked with the infected population and the School was my first institution of choice in pursuing such unique training. Studying at the School for a PhD has exposed me to different disciplines, and to a network of people of various expertise who are useful to my current career in academic research."

Bismarck Dinko
Ghana

Read more about our students at:
www.lshtm.ac.uk/study/profiles

Our long-term goal is to gain a fully rounded understanding of the complex and dynamic ways by which pathogens modulate virulence and interact with human/animal hosts.

Staff profiles

Dr Andrew Bastawrous
is an ophthalmologist and research fellow in International Eye Health based at the International Centre for Eye Health at the London School of Hygiene and Tropical Medicine. He is also co-founder of Peek – a project to develop a Portable Eye Examination Kit- and a TED Fellow.

In 2011, Andrew was awarded a Medical Research Council (MRC) and Fight for Sight Fellowship to undertake the first longitudinal population-based study (follow-up study) of eye disease in Africa. He spent 18 months in the Nakuru, Kenya, to lead the fieldwork for the trial.

Faced with a series of logistical challenges to reach remote communities, he came up with the idea of a smartphone-based ophthalmic tool which could produce the same quality diagnostic results as state of the art hospital equipment. He is now developing and testing Peek as part of a collaborative project involving a number of partners.

Andrew has also worked and undertaken research in Sierra Leone, Peru, Belize, Sri Lanka, Madagascar and Uganda.

In 2009, Andrew received the Lachlan McNeill Scholarship for his work in Sierra Leone. He has also been awarded the International Glaucoma Association Award and a pump-priming grant from the British Council for the Prevention of Blindness to further the development of novel technologies for use in resource-poor settings.

He has published over 25 peer-reviewed articles focusing on international eye health and mobile technology in healthcare and has co-authored four book chapters. He was also awarded the Max Perutz Science Writing Award from the Medical Research Council.

In 2014 he was made a TED Fellow and gave a talk at the Vancouver conference which has been watched more than 500,000 times online.

Dr Colin Sutherland
from the Department of Immunology & Infection.

After training as a biologist, I began working in malaria research as a Post-Doc on a laboratory-based project in Darwin Australia, but soon realised I would like to work in the public health and epidemiological aspects of malaria, fitting biology into that context. The School offered a great opportunity to follow such an inter-disciplinary approach to infectious diseases.

I joined the School in 1998 as a Research Fellow with Geoff Targett, working on the adhesion of *Plasmodium falciparum* gametocytes. I then coordinated a series of Wellcome Trust-funded clinical trials which measured the effect of antimalarial combination therapy on transmission of *P. Falciparum* in Farafenni, The Gambia, from 2000–02. Since 2004, I have been supported by Public Health England (formerly the Health Protection Agency) and currently have a joint appointment in the Public Health England Malaria Reference Laboratory in the School, and the Department of Clinical Parasitology, Hospital for Tropical Diseases, where we are engaged in the development of new molecular diagnostics for malaria and in studies of the genetics/genomics of all Plasmodium species that infect humans.

My lab at the School currently comprises four PhD students, three Post-Docs and one Technician working on projects including the genetics & epidemiology of ovale malaria; antibody responses elicited by gametocyte stages *P. falciparum*; and genetic polymorphisms in *P. falciparum* associated with resistance to ACT drugs in vivo.

One of the main reasons I enjoy working at the School is that it has a unique atmosphere, generated by the global origins of its student body, and by the large number of School staff whose main motivation is to do good – by improving access to good health for people everywhere.

Faculty of Public Health and Policy

The aim of the Faculty of Public Health and Policy is the improvement of global health through research, teaching and the provision of advice in the areas of health policy, health systems and services, and individual, social and environmental influences on health. Interests and activities embrace the health needs of people living in countries at all levels of development.

Key information

Head of Faculty: Professor Richard Smith
Research Degrees Director: Dr Judith Green
Email: *Judith.Green@lshtm.ac.uk*

The Faculty is the largest multidisciplinary public health group in Europe, with a total of over 220 staff including epidemiologists, public health physicians, economists, policy analysts, anthropologists, sociologists, historians, psychologists, statisticians and mathematicians. The Faculty's research programmes focus on public health problems of importance both globally and in the UK, and build on an extensive network of collaborations. The research programmes exploit multidisciplinary and multi-method approaches, generate new knowledge for specific contexts and test transferability to different settings, and engage with policymakers and providers of health care to ensure research is relevant and translated into practice.

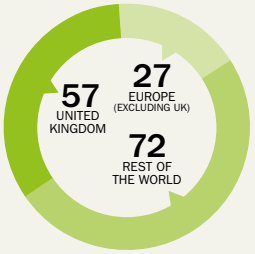
The Faculty is renowned for its influential research in diverse areas concerned with global health such as:

- Understanding the policy-making process in health and using this understanding to improve the quality of public decision-making;
- Evaluating ways of improving health system performance in countries across the world, from the UK to Afghanistan;
- Improving the quality, organisation and management of health services;
- Using economic and epidemiological analysis to guide disease prevention and treatment in areas such as malaria, HIV/AIDS, tuberculosis, vaccine-preventable diseases, child health, and cancers;
- Pioneering ways of using routine data to evaluate and improve service quality in areas such as surgery;
- Understanding the influences on health of individual behaviours including sexual practices, drug use, and gender violence, and evaluating behavioural change interventions;
- Assessing the effect of environmental factors, especially climate change, air pollution, housing and transport, on health and evaluating public health policies in these areas;
- Understanding global influences on health and health systems including the role of transnational companies such as the tobacco industry, and the spread of pandemic diseases.

In keeping with its focus on the interface between scientific research, policy and practice, faculty staff are engaged in a very wide range of policy-influencing roles, including membership of key government advisory groups, leadership of professional bodies, membership of research funding bodies, and provision of expert advice to global health institutions.

CREDIT: LIZETTE POTGIETER

The number of research degree students in 2013/14 from different regions of the world:



Department of Global Health and Development

Key information

Head of Department: Professor Kara Hanson
Department Research Degree Co-ordinator: Dr Dina Balabanova
Email: *Dina.Balabanova@lshtm.ac.uk*

The aim of the department is to conduct novel and policy-relevant research and training that concerns health issues with a global reach, predominantly from the perspective of the development of low- and middle-income countries. Staff come from a wide range of disciplines including economics, epidemiology, mathematics, policy analysis, medicine and anthropology.

The Department is structured according to three research groups, which reflect a combination of disciplinary approach and subject areas of focus: Health Economics and Systems Analysis; Anthropology, Politics and Policy; and Social and Mathematical Epidemiology. Members of the Department edit the journal Health Policy and Planning; run short courses on disease control in humanitarian emergencies, health financing, and methods to research gender-based violence; and organise a stimulating programme of group and department seminars featuring internal and external speakers.

Current research includes:

Research on equitable and effective health systems, including work on health financing and approaches to achieving universal coverage; health worker incentives and motivation; mechanisms of accountability and governance in health systems; the health system effects of introducing new vaccines; and assessment of overall health system performance using case study and historical approaches, setting it in its political and institutional context. Work also includes analyses of health systems responses to the growing burden of non-communicable diseases in low-resource settings (diabetes, hypertension) and impact on access and quality as perceived by users.

Evaluation of complex health system interventions, including subsidies for antimalarial drugs, pay-for-performance schemes to strengthen health system performance, the impact of integrated service delivery on health and service outcomes, and comparisons of behavioural interventions to improve clinical practice and access to quality health care.

Theoretically informed empirical and normative policy analysis in low- and middle-income countries, to highlight the relevance of policy analysis for health and development policy and inform decision making. Work includes: analysis of the political nature of health policy issues – including multi-country analyses of factors affecting the use of research evidence in policy decision making; studies of health governance including the accountability of global, bi-lateral and national institutions responding to the effects of climate change on health; and decision making processes in health policy including the central role and impact of different policy actors and powerful stakeholders. Policy research in low-income settings also analyses health systems implementation and scale-up of policies on integrated service delivery; and decision-making surrounding the scale-up and diffusion of externally funded maternal and newborn health interventions.

Economic analysis and epidemiological modelling to inform disease control policy. In relation to HIV and STD policy, this includes assessments of the impact and cost-effectiveness of different HIV interventions, including the role of new technologies (antiretroviral treatment based HIV prevention interventions, rapid sexually transmitted infections diagnostics, HSV-2 suppressive therapy), structural interventions, the costs and impact of scaling-up effective interventions in various countries, including India and South Africa, the role of targeted HIV prevention activities amongst sex workers and injecting drug users (Ukraine, Belarus, India, Bangladesh, Benin, South Africa), and research to identify what may be the optimal mix of interventions in different epidemic settings. Malaria-related research includes the costs and effectiveness of different approaches to scaling up artemisinin-based combination therapies (ACTs) and rapid diagnostic testing in a variety of settings.

Research on gender based violence and health, including population survey research and multi-country analyses of the global burden of intimate partner violence and child sexual abuse; multivariate analyses to learn more about the risk factors for violence and its links with different health and development outcomes, and documentation of the health needs of trafficked women and exploited workers. An important area of research is the development and evaluation of interventions to prevent or respond to violence, including three ongoing trials of different forms of prevention programmes in Tanzania, Uganda and Cote D'Ivoire. Methodological and ethical developments include the development of recommendations on the safe conduct of research and approaches to better conceptualise and measure different forms of violence.

Anthropology of health, medicine and public health research, including ethnographic and qualitative studies of cultural understandings and practices of health and medicine in social, historical and political economic contexts; studies to develop health interventions that aim to address the lived realities and wider factors shaping the health of populations and health service providers, particularly in relation to HIV, malaria and tuberculosis; studies to evaluate the workings of behavioural interventions in practice, drawing on anthropological theories of social change and local systems as well as analyses of agendas driving change; and studies to understand experiences and implications of public health research including clinical trials, particularly in low-resource settings.

Staff come from a wide range of disciplines including economics, epidemiology, history, mathematics, policy analysis, medicine and social anthropology.

Department of Health Services Research and Policy

Key Information

Head of Department: Dr Pauline Allen
Department Research Degree Co-ordinator: Professor John Cairns
Email: john.cairns@lshtm.ac.uk

The Department's aim is to carry out research that helps to improve the quality, organisation and management of health services and systems. This includes research in trying to understand how health services and systems behave, establishing what services should be provided and how they should be organised, assessing the quality of existing services, and informing how improvements can be brought about. Most of our research is in high income countries and, in particular, the UK. Our staff reflect both the multidisciplinary (epidemiology, sociology, psychology, economics, history, statistics, health policy) and multi-professional nature of our work.

Establishing what care should be provided and how services should be organised involves primary evaluative research (on particular health care interventions and policies), reviews of existing research evidence and modelling possible options.

Assessing the quality of existing services involves the development of outcome measures, indicators and data collection methods. We achieve these aims partly through close links with clinicians (in particular in surgery, critical care and obstetrics). In addition to specific projects, we run the Clinical Effectiveness Unit at the Royal College of Surgeons of England, and support a similar unit at the Royal College of Obstetricians and Gynaecologists.

Our work on improving health services and systems extends from research on the organisation of health care providers and purchasers to national and international policies on funding, workforce and governance. Achievement of these aims is enhanced by providing an 'on-call' facility to advise the Department of Health about international comparisons, being a key part of the European Observatory on Health Care Systems, and research on health systems carried out as part of the European Centre On the Health Of Societies in Transition.

The Department includes two Policy Research Units funded by the Department of Health: the Policy Innovation Research Unit and the Policy Research Unit in Commissioning and the Healthcare, and the European Centre on Health of Societies in Transition (ECOHOST). We also host part of the European Observatory on Health Care Systems.

Current research includes:

Analyses of health policy processes are being undertaken with particular reference to understanding the dynamics of major system changes in high income countries. Cross-country comparisons are made of health policy processes and their impacts on performance of health care systems in high income settings (e.g. across the countries of the UK);

Health systems in transition: Our major focus is the European region including the former Soviet Union. We are interested in understanding the reasons for the changing patterns of health and disease and in identifying the social and economic determinants of inequalities in health across countries in the region, including a major project on obesity;

Health and health behaviour in the UK: The Older Peoples' Environments and Cardiovascular Risk study aims to identify features of the neighbourhood environment that are most important in influencing health behaviours in older people in the UK, and highlight factors potentially amenable to public health or policy interventions. It involves development of methods to objectively measure health-related aspects of the environment using primary and secondary spatial data in 23 UK towns;

Health economics: The focus of our research is on methodological and applied projects in the field of economic evaluation. One exciting new area addresses reducing selection bias when using observational data in economic evaluations. This investigates the use of a new non-parametric matching method, called Genetic Matching. Other ongoing studies concern topics as diverse as the cost-effectiveness of radiotherapy following surgery for breast cancer, an assessment of the implications of improved access to renal replacement therapy, and evaluation of an educational intervention to improve the management of diabetes in children;

Health outcomes: The department is involved both in developing new measures of health outcome and in researching their implementation and use. This is also enabling us to explore several methodological issues including the relationship between disease-specific and generic measures and the development of statistical methods to assess hospital performance and equity of access to surgery using patient-reported outcomes measures. Department of Social and Environmental Health Research

In addition to specific projects, we run the Clinical Effectiveness Unit at the Royal College of Surgeons of England, and support a similar unit at the Royal College of Obstetricians and Gynaecologists.

Department of Social and Environmental Health Research

Key information

Head of Department: Professor Tim Rhodes
Department Research Degree Co-ordinators: Dr Alex Mold and Dr Cicely Marston
Email: *alex.mold@lshtm.ac.uk* and *cicely.marston@lshtm.ac.uk*

The Department's work focuses on the social and environmental determinants of health and the evaluation and analysis of public health policy. Our areas of expertise include drugs and health behaviour; environment and health; ethics, public health and human rights; globalisation and health; participatory research with communities; history and health; reproductive and sexual health; transport and health; and spatial analysis in public health.

The Department has a multidisciplinary focus, with researchers from the fields of epidemiology, health economics, history, international relations, mathematical modelling, medicine and ethics, political science, sociology and statistics. Our research programme includes work in both high and low income countries, and integrates environmental, social and policy issues at international, national and local levels.

Current research includes:

Drugs and health behaviour: high-quality research to understand the social and behavioural aspects of drug use in order to inform, design and evaluate interventions and policies designed to reduce the health harms associated with drug use;

Environment and health: climate change and health; participatory transport and health projects in London; cancer risks from occupational and environmental exposures; health impacts of housing; air pollution epidemiology;

Ethics, public health and human rights: ethics and healthcare research; environmental health, bioethics and sustainability; ethics of infectious disease control; developing areas in public health ethics; the philosophical and ethical foundations of public health; health and human rights;

Globalisation and health: climate change, communicable disease, communities, economy, energy, governance and security;

History and health: the recent history of public health at the local, national and international levels; substance use, drugs, alcohol, smoking; health services in the twentieth century; patient consumerism; voluntary organisations and health; research resource development; witness seminars; history and policy;

Reproductive and sexual health: sexual behaviour studies; evaluation; sexual health services; maternal and newborn health promotion;

Social medicine: minimum income for healthy living, currently UK – young men, older people, as an issue for public policy generally;

Spatial analysis in public health: the use of spatial methods such as geographical information systems, global position systems and spatial statistics in Public Health;

Weight management in primary care: the aim of the Camden Weight Loss trial study is to conduct a large-scale randomised controlled trial to assess the effectiveness of a longer-term advisor-led lifestyle support programme and the use of pedometers in overweight or obese adults who wish to lose weight;

Public and patient participation in health research: with Collaboration for Leadership in Applied Health Research and Care, Northwest London – public attitudes to electronic databases for health research.

"Inspired by my own experiences, I related much of my MSc Public Health studies at the School to China's healthcare system. After some consultancy and internships in public health, I started to see an emerging theme that linked my research activities: 'finding out what works, and how it works'. Determined to pursue a career in analysing and understanding the impacts of health policy, I decided to return to the School. My research seeks to understand how implementing New Essential Medicine Policy in China impacts on antibiotic prescription in outpatient settings of state-owned hospitals."

Henry Lishi Li
China

Read more about our students at:
www.lshtm.ac.uk/study/profiles

Our research programme includes work in both high and low income countries, and integrates environmental, social and policy issues at international, national and local levels.

Staff profiles

Dr Kara Hanson
from the Department of Global Health & Development talks about her career and research:

My initial training was in development economics, but I became involved in health issues through my role as a Planning Officer in the Ministry of Health in Swaziland. I had never realised that economists played a role in health but this discovery changed my entire career path. Equally important, working in a Ministry of Health introduced me to the idea of a health system, and how the different parts of the system needed to work together to deliver effective services at a population level. Constraints to health system development are not always financial – there are a number of other challenges to making systems function well, which are linked to incentives, financial flows, organisational management, as well as the level of funding available. My timing couldn't have been better: demand for health economists and health economics research was really beginning to expand from the early 1990s and there were lots of opportunities. After I returned from Swaziland I worked at the School for two years and then went to Harvard to study for a doctorate, returning to the School in 1997.

My research falls into two main areas. I've worked on the economics of health systems in low-income settings, studying health system organisation, health financing, human resources and the role of the private sector in health systems. My other main interest has been in the economics of malaria. Colleagues at the School have been involved in the development of new tools for malaria control, but what I am really passionate about is how to get them into widespread use so that they can achieve public health impact.

The School offers the opportunity for social scientists to work closely with those doing clinical and epidemiological research. I've learned so much from these experiences, and I think it's a measure of our successful collaboration that so much internationally recognised, multidisciplinary research in disease control takes place at the School.

Professor Martin McKee
from the Department of Health Services Research & Policy:

I've been at the School for what now seems a very long time. I came to do the MSc in what was then community medicine in 1985 and, apart from a year back in my native Northern Ireland, have been here ever since. My background is in medicine, initially specialising in internal medicine. However, after 5 years of doing that I realised that the problems I was seeing could only be addressed by tackling factors far beyond the health system. It is hard to believe it but in Belfast in the early 1980s you could still see patients with scurvy and Beri Beri. My research on gut peptides seemed somewhat distant from the reality I was seeing in my clinics. It seemed natural to make the move to public health.

I'd always been interested in European history and politics. When I was 15 I bought my first Inter Rail ticket and set off on the first of what would be many adventures in far flung parts of our continent. Things were very different then, in the era before mobile phones and budget airlines. In 1989, the School decided that it should expand its presence in Europe. This seemed a great opportunity, but little did I realise what I was letting myself in for. Within weeks, Europe had changed beyond recognition. I knew the countries of eastern Europe quite well but I never imagined that the regimes would collapse as quickly as they did.

For almost 20 years I've been leading a team studying the health effects of those momentous events, initially in countries like Hungary and newly unified Germany, but subsequently across the ex-USSR. More recently, we've broadened our work to include the health effects of major political, social and economic transitions in general, with our current focus on the financial crisis and the misguided austerity measures that are prolonging it. Our work is strongly linked to policy, not least through the European Observatory on Health Systems and Policies, a partnership I helped to create.

My inspiration is the German pathologist Rudolph Virchow who famously said: "Medicine is a social science, and politics nothing but medicine at a larger scale" but I think we should also recall the words of Karl Marx who said that "the philosophers have only interpreted the world, in various ways; the point is to change it."

Focus group discussion in a primary health centre, Boki, Cross River State, Nigeria. Photo courtesy Chimaobim Edu.

Continuing Professional Development & Short Courses

Enabling participants to refresh their skills and to keep up to date with the latest research and knowledge, underlying efforts to improve public health worldwide. The programme includes short courses, modules from the London-based and distance learning programmes.

Students and staff in the South Courtyard Atrium, Keppel Street.

Continuing Professional Development Programme

We recognise that many busy professionals may not have time to study for a year in London or require shorter, more intensive training. We have responded to this need by offering a wide range of shorter courses, available in London, by distance or online.

Continuing Professional Development – London-based

Short Courses: short, post-experience specifically designed short courses run for one day to three months, and provide opportunities for intensive study of specialised topics in addition to those available through the Master's programme. The courses enable participants to refresh their skills and to keep in touch with the latest research and knowledge. Courses run throughout the year and are delivered by our excellent staff members in London.

MSc Modules: where individuals can access elements of the full London-based Master's programme. The School offers 19 MSc courses in London, all designed on a modular basis to provide maximum opportunity for student choice. A wide range of modules is available within these programmes and places are offered to individuals who wish to undertake them as a single short course of study. These modules offer an opportunity for individuals to update their skills, enhance career development and study with health professionals from other institutions in a multicultural environment.

Continuing Professional Development – Distance Learning

Individual Modules by Distance Learning: where students can choose to undertake one or more modules from our distance learning Master's programme as a single course of study or as part of a themed group. The modules and themed groups of modules enable participants to refresh their skills or develop new ones, and to keep in touch with the latest research and knowledge in global health.

Other forms of Continuing Professional Development

Postdoctoral Studies which may involve supervised research design or analysis or use of specific facilities. Other needs might be for academic supervision of a research project which forms part of a research degree at another institution.

Occasional Studies which may involve attendance at just one element of a course, or laboratory training in a particular technique.

International Development: DL4D (Distance Learning for Development), is a collaboration with the London International Development Centre, of which the School is a partner. The programme provides high-quality postgraduate training to those working in the field of international development. Details of the opportunities available are given in the following pages.

The School continually reviews its portfolio of these short courses to ensure that its expertise is made available to health care professionals in a timely and appropriate manner.

The School has many years of experience in providing continuing professional development. For example, the Diploma in Tropical Medicine & Hygiene has been running for more than 70 years and is renowned worldwide. The School continually reviews its portfolio of these short courses to ensure that its expertise is made available to health care professionals in a timely and appropriate manner.

Full application details can be obtained from:

Registry,
London School of Hygiene & Tropical Medicine,
Keppel Street,
London WC1E 7HT
United Kingdom

Email: *shortcourses@lshtm.ac.uk*
Tel: +44 (0) 20 7299 4648
Fax: +44 (0) 20 7299 4656
Website: *www.lshtm.ac.uk/study/cpd*

Course fees can be found at *www.lshtm.ac.uk/study* and include participation and all course materials but exclude travel costs, accommodation and meals. The full fee is payable on notification of acceptance for the course and must be paid before the start of the course.

Specifically designed, post-experience Short Courses run from one day to three months, and provide opportunities for intensive study of specialised topics in addition to those available through the MSc programme.

London-based Short Courses

Adolescent Health in Low- and Middle-Income Countries

Course Organiser: Professor David Ross
Email: *david.ross@lshtm.ac.uk*
Annually: June for 10 days

There is increasing evidence for effective interventions to improve adolescents' health and development, and growing consensus about priorities for action. This two-week intensive course has been developed to help fill this gap.

The course has a special emphasis on low- and middle-income countries. The course is organised and taught by the School and the World Health Organization (WHO), in collaboration with the Public Health Foundation of India, and the Obafemi Awolowo University, Ile-Ife, Nigeria. It is designed for mid-career professionals who have experience in adolescent health and current responsibilities for health sector interventions in low- and middle-income countries. This may include health professionals, programme implementers and policymakers, as well as researchers with a specific interest in adolescent health. The course aims to equip participants with the knowledge, conceptual frameworks and tools necessary to strengthen health sector policies and programmes for adolescent health and development in low- and middle-income countries. The course will have a public health rather than a clinical medicine orientation.

Advanced Course in Epidemiological Analysis

Course Organiser: Dr Elizabeth Allen and Dr Helen Weiss
Email: *elizabeth.allen@lshtm.ac.uk*
Annually: September for 10 days

Statistical methodology for the design and analysis of epidemiological studies is a fast-changing field. Participants in this intensive course will be given a thorough grounding both in classical methods of analysis and the more advanced regression techniques. Participants will gain practical experience of data analysis using the computer package Stata. Various aspects of study design will also be considered.

Applicants should have a good command of English and a working knowledge of basic epidemiology and statistics. The course is taught in Stata and we require students to have experience of statistical analysis using Stata. The course is designed primarily for those working, or planning to work, on epidemiological research projects. The emphasis will be on developing an understanding of the underlying assumptions and principles, on the practical application of the techniques and on the correct interpretation of the results, rather than on the mathematical derivation of the methods. The methods will be illustrated through studies of the epidemiology of both infectious and non-infectious diseases, conducted in both developed and developing countries.


Friends of Buburi clinic, Kenya.

Advanced Stata: Programming and Other Techniques to Make Your Life Easier

Course Organisers: Ms Emma Slaymaker and Ms Milly Marston
Email: *stata_short_course@lshtm.ac.uk*
Annually: for 5 days

The aim of the course is to teach competent Stata users the techniques that allow you to get the most out of Stata and speed up the output of your work. The course is aimed at researchers and other professionals, from any discipline, who regularly use Stata for analysis but want to learn how to work more efficiently. It would be particularly suited to those who are about to embark on large analyses and who would like a quick guide on how to automate the repetitive parts of the process.

The examples used in the course are drawn from the background of the tutors and are, from the population and health sciences. However, none require any specialist knowledge of the field. Most teaching is hands on, using Stata to tackle a series of exercises designed to illustrate the use of particular commands in order to solve a variety of problems. These exercises are supplemented by short lectures and a very comprehensive set of notes. There is a strong emphasis throughout on providing information that can be built on to tackle new problems and to be applied in different situations. We use Stata 11 in a Windows environment.

Cancer Survival: Principles, Methods & Applications

Course Organisers: Professor Michel Coleman and Dr Bernard Rachet
Email: *bernard.rachet@lshtm.ac.uk*
Annually: June for 5 days

A highly experienced faculty presents a stimulating and intensive one-week course on the principles, methods and applications of cancer survival with population-based data. Relative survival will be the main approach to analysis, with discussion of some recent methodological developments and results, in lectures and computer-based practical exercises using real data, with review sessions and a session for participants to present their own work or ideas.

The methodological concepts of cancer survival will be illustrated by public health and policy applications throughout the week. Survival results from recent studies will be presented and their interpretation discussed. The course is aimed at epidemiologists, statisticians, physicians and oncologists, public health specialists and others with a direct interest in applied cancer survival analysis, and particularly those working in a cancer registry. Applicants must have a basic understanding of cancer survival analysis, since this course will include discussion of advanced statistical methods and practical computing in addition to discussion of the public health applications of cancer survival data. Some experience in statistics will be required to take full advantage of the course. The applied public health elements of the course will be accessible and relevant to all groups.

Causal Inference in Epidemiology: Recent Methodological Developments

Course Organisers: Professor Bianca DeStavola, Professor Simon Cousens and Dr Rhian Daniel
Email: *bianca.destavola@lshtm.ac.uk*
Annually: November for 5 days

Most courses on statistical modelling in epidemiology concentrate on the use of regression models to estimate causal effects while adjusting for measured confounders. These address uncertainty due to sampling error but not, in general, other sources of error and uncertainty which may arise from missing data, measurement error, uncontrolled confounding, and/ or selection bias. Recent methodological advances make it feasible to incorporate at least some of these sources of error into statistical models so that quantitative assessments can be made of their impact on estimates of causal effect and the uncertainty around those estimates.

This course will discuss the current state-of-the-art with respect to these issues, while retaining a practical focus. Participants will acquire awareness of the common threads across these new methods and competence in applying them in simple settings. Participants will be expected to be numerate epidemiologists or applied statisticians with an interest in epidemiology and clinical trials. An MSc degree in Epidemiology or Medical Statistics, or previous attendance on the School's Advanced Course in Epidemiological Analysis, would be an advantage.

Certificate in Pharmacoepidemiology & Pharmacovigilance

Course Organiser: Dr Ian Douglas and Dr Sinead Langan
Email: *pepi@lshtm.ac.uk*
Annually: November–June

The global health challenge of maximising drug safety yet maintaining public confidence has become increasingly complex. This 20-week

examined course in pharmacoepidemiology and pharmacovigilance addresses the increasing need for well-informed professionals to work in all areas related to the assessment of drug safety and risk benefit of drug use. It is an introductory course and should meet the needs of a wide variety of practitioners.

The course is part-time and comprises 230 hours (approximately one day per week on average) which are spent as follows:

- 80 hours formal teaching and contact time;
- 80 hours self-directed study;
- 70 hours project work.

The course will enable participants to understand issues surrounding the risks and benefits of drug use in humans including the cause, manifestations and consequences of adverse drug effects, the manner in which these are detected and monitored, and the related historic and legal frameworks; introduce participants to fundamental statistical, economic and epidemiological concepts and methods; introduce participants to important pharmacoepidemiological concepts and methods and enable them to apply these methods to drug issues and equip participants with skills to facilitate further learning in these areas. The course is aimed at personnel concerned with the safe use of medicines, particularly in developed countries.

Clinical Trials

Course Organiser: Joanna Dobson and Rosemary Knight
Email: *joanna.dobson@lshtm.ac.uk*
Annually: for 5 days

Clinicians, policymakers and patients are increasingly demanding high-quality evidence to help with making decisions about health care. There is a hierarchy of such evidence ranging from anecdotal and observational studies up to randomised controlled trials. In these trials, the effects of different treatments or other interventions are compared to each other by giving the treatments to patients 'at random', thus providing a 'fair' and unbiased comparison. Randomised controlled trials provide much of the evidence needed to register new drugs for use, but trials are also used for comparing a wide range of non-drug treatments, such as medical versus surgical managements for cancer. This course will provide an introduction to the area of clinical trials, with more detailed coverage of some of the key issues to be considered in their design, analysis and interpretation. The topics covered include:

- Essentials of randomised controlled trials and ethical issues;
- Introductory statistics for design, analysis and reporting;
- Design randomisation, trial size, data monitoring, and 'alternative' design;
- Analysis and reporting;
- Systematic reviews and meta-analyses of trials;
- Development of a protocol.

The course is relevant to all those with an interest in the rigorous evaluation of interventions in health care, particularly clinicians and others working or intending to work in the health services or related areas such as the pharmaceutical industry.

Design and Analysis of Discrete Choice Experiments

Course Organiser: Dr Mylene Lagarde
Email: *mylene.lagarde@lshtm.ac.uk*
Annually: for 3 days

This course will provide participants with the fundamentals in the design, analysis and interpretation of discrete choice experiments. Participants will have the opportunity to gain practical experience of the tasks involved. It is aimed at those interested in the application of discrete choice experiments in health economics and will focus on the theoretical and practical issues raised when designing and analysing data obtained from discrete choice experiment surveys. These methods are relevant to researchers, private sector and public health authority analysts interested in patient and provider preferences to inform health policy issues. By the end of the course participants will be equipped with the necessary skills to conduct their own study.

"I am a medical doctor, and before I did the course I was working as a medical policy advisor. I had an interest in pharmacoepidemiology/ pharmacovigilance, but no background in this area, so I decided to study for the certificate. The modules were intense enough for me to feel challenged, but the course materials, workshops and lectures were well defined so it was clear at each phase what I needed to focus on. Shortly after completing the course, I secured a role in pharmacovigilance and without a doubt the course played a significant part. I apply aspects of what I learned on a daily basis and the course materials continue to serve as a resource. The course was great fun and taking it was one of my best career decisions."

Raquel Rogers
United Kingdom

Read more about our students at:
www.lshtm.ac.uk/study/profiles

East African Diploma in Tropical Medicine & Hygiene students on a field trip.

Diploma in Tropical Medicine & Hygiene

Course Organiser: Dr David Moore
Email: *david.moore@lshtm.ac.uk*
Annually: for 3 months (followed by the Royal College of Physicians examination)

This course combines practical laboratory work, a series of lectures and seminars, and some clinical experience designed to provide doctors with the clinical and factual knowledge that will form the basis of professional competence in tropical medicine. It is designed for physicians who intend to work in the tropics, physicians with tropical experience who have returned for a refresher, or practitioners who may be working in non-tropical countries and who need experience in clinical parasitology, imported diseases and travel medicine. n Diploma in Tropical Medicine & Hygiene students on a field trip.

Staff teaching on the course, most of whom have lived and worked in the tropics, come from all faculties of the School and from many external institutions. The Hospital for Tropical Diseases provides the setting for clinical training.

This intensive course aims to teach doctors the skills required to understand, diagnose, treat and prevent diseases that are especially prevalent in tropical and developing countries where resources may be limited. The course has a strong epidemiological base but the scientific basis of infectious diseases is also given priority. The Diploma in Tropical Medicine & Hygiene is a recognised component for accreditation in the UK and USA. The course is open to doctors who hold a medical qualification from a recognised medical school in any country, and who are registered for medical practice in that country.

Photo courtesy Richard Coker.

Human papilloma virus vaccination in Mwanza, Tanzania. Photo courtesy Deborah Watson-Jones.

Diploma in Tropical Nursing

Course Organiser: Dame Claire Bertschinger
Email: *claire.bertschinger@lshtm.ac.uk*
Twice Yearly: March–July, September–February. One day per week (Wednesday) for 19 weeks

This course is intended for nurses and midwives who have travelled or worked in developing countries, or who hope to do so. The course aims to provide participants with knowledge of the causes, prevention and treatment of major tropical diseases, through lectures and practical laboratory sessions. Participants should also gain an insight into primary health care in developing countries; learn to maximise care with minimum resources; and understand the importance of promoting health through prevention rather than cure. The course may cover a range of global health topics including: anaemia and Sickle cell disease; epidemiology; immunology; immunisation; intestinal infection; leprosy; mother and child health; medical anthropology; nutrition; parasitology; refugees; training traditional birth attendants; tropical skin conditions; war wounds; and water and sanitation.

There are also laboratory sessions on the use of microscopes and how to diagnose malaria and other parasites. All of the lecturers are experts in their chosen fields.

The Diploma course is available to registered nurses and midwives and it is recommended that they have two years' post-registration experience. Candidates must be computer literate.

East African Diploma in Tropical Medicine & Hygiene

Course Organiser: Dr Philip Gothard
Email: *philip.gothard@gmail.com*
Annually: September–December

The East African Diploma in Tropical Medicine and Hygiene is a three-month, full-time short course taught by School staff and colleagues in Tanzania and Uganda which takes the essence of the London course and translates it into an African context. It is designed for doctors planning to work in Africa. It emphasises experiential learning by immersing students in the clinical and public health issues facing African doctors today. Small group sessions are led by experienced physicians and at least a quarter of the course material is directly related to clinical practice. Around two thirds of the course will focus on tropical infectious diseases, including tuberculosis, HIV and malaria. Students will also spend a week in the laboratory learning how to identify parasitic infections. The practical work will be accompanied by clinical case-based discussions. The remaining third of the course will be spent examining contemporary issues in East African health care, including the clinical assessment of infants and children, maternal health in resource-limited settings and an introduction to clinical epidemiology. The curriculum is divided into core and optional units. On completing the course participants should be able to evaluate the evidence for various health interventions, both public and individual, and make a safe and competent assessment of sick patients.

Epidemiological Evaluation of Vaccines: Efficacy, Safety & Policy

Course Organisers: Professor Anthony Scott and Dr Stefan Flasche
Email: *stefan.flasche@lshtm.ac.uk*
Annually: July for 10 days

This course is designed to provide an understanding of the methods used in the evaluation of vaccines; from early human trials through to assessment of population impact and policy. It aims to address issues in high-, medium and low-income countries. The course is particularly relevant to public health professionals and field researchers with a strong interest in vaccine efficacy, safety and policy impact.

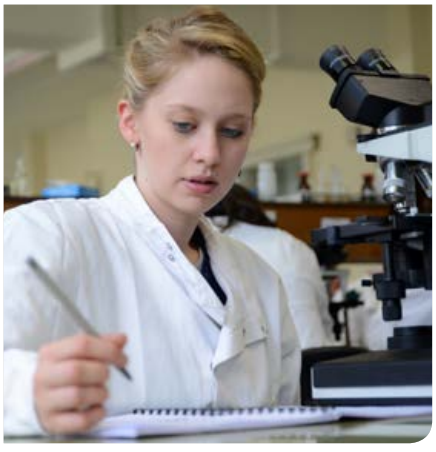
Participants will be expected to have a basic postgraduate epidemiology module or equivalent. Teaching consists of a combination of formal lectures and more informal seminars and group practicals. The topics to be covered include: epidemiological principles of vaccine evaluation; immunological basis for vaccination; pre-licensure epidemiological issues: phase I, II and III trials; practical and ethical considerations; clinical trials: sample size and analysis issues; good clinical practice and adverse event monitoring during vaccine trials; post-licensure epidemiological issues: vaccine efficacy and effectiveness; impact studies; burden of disease assessment; surveillance of disease and infection; adverse events monitoring; using immunology in vaccine evaluation; infectious disease modelling in assessing vaccine impact; economic evaluation of vaccination programmes; key issues in vaccination schedules and policy; long term implications of vaccine policies; and topical issues in the epidemiology of vaccine-preventable disease. A knowledge of Windows (Word and Excel) is essential.

Factor Analysis and Structural Equation Modelling: An Introduction Using Stata and Mplus

Course Organisers: Professor Bianca De Stavola
Email: *bianca.destavola@lshtm.ac.uk*
Annually: February for 3 days

This course will discuss the current state-of-the-art with respect to factor analysis and structural equation modelling, while retaining a practical focus. Participants will acquire awareness of the new available methods and gain competence in applying and combining these in simple settings. Candidates applying to the course are expected to be applied statisticians, social scientists and epidemiologists with an interest in factor analysis and structural equation modelling. Familiarity with regression models would be an advantage.

By the end of the course participants will be able to: understand measurement principles such as reliability and precision; perform exploratory factor analysis and confirmatory factor analysis with a mixture of binary/ordinal/interval data; estimate and interpret path analytic and structural models; estimate and interpret growth curve and latent class models; develop awareness of the common threads across these methods; and gain practical experience in using these methods using Mplus and Stata. Teaching consists of a combination of formal lectures and computer practicals.



Intensive Course in Epidemiology & Medical Statistics

Course Organiser: Professor Carine Ronsmans and Dr Immo Kleinschmidt
Email: *carine.ronsmans@lshtm.ac.uk*
Annually: June–July for 15 days

Epidemiological research has become an important tool in the study of the aetiology and natural history of infectious and non-infectious diseases, and in assessing health effects in populations. This is a three week course on the basic principles and methods of epidemiology and medical statistics with an emphasis on the design and interpretation of epidemiological studies. Appropriate statistical methods will be integrated with the main epidemiological content, and practical sessions will make use of relevant computer software.

The course is relevant to clinicians and other graduates who work in medical research departments, academic faculties or health services. No previous formal training in epidemiology or statistics is required. The topics to be covered will include: Design and analysis of epidemiological studies, including case control, cohort, cross-sectional, intervention studies and clinical trials; Statistical methods in epidemiology, including t-test, chi-square test, Mantel-Haenszel analysis, age standardisation, simple linear regression and survival analysis; Data analysis using Stata software; Epidemiological strategies of disease control, including screening and epidemiological methods for infectious diseases.

Teaching will be through lectures, seminars and practical sessions. Stata will be the statistical software package used to gain an understanding of concepts.

International Eye Health

Course Organiser: Professor Allen Foster
Email: *allen.foster@lshtm.ac.uk*
Annually: Dates to be confirmed

Health systems are devised to provide an appropriate response, with equitable access, to the health needs of the population and also to protect from the consequences of ill health. The challenge is that this needs to be implemented whilst ensuring the balance with appropriate use of available resources. The resulting outcome; when disproportionately distributed and implemented, as is often the case, leads to the weakening or even breakdown of service delivery.

Eye care has traditionally been established as an entity separate from the rest of health care, although the VISION 2020 strategy has extensively promoted the integration of eye care services. Through the progressive introduction of health system concepts to eye care, there is an increasing need for better understanding of how eye health systems function under the key building blocks that influence a health system and its consequences.

This new course will be based on the previous VISION 2020 course and will also include aspects of the previous programmes in Tropical Ophthalmology and Health Systems for Eye Care. Further information will be available on the School's website.

"Born in Nigeria, my medical training took me through Abia State University. Then my quest for knowledge led me to the School. Studying in the UK is a good experience, but at the School you get an excellence derived from a long, distinguished history. The dynamism of the lecturers, the quality of the teaching and the multicultural nature of the Diploma in Tropical Medicine & Hygiene programme are all well worth commending. Over more than a century, the School has contributed to a significant metamorphosis in the understanding of tropical diseases. I will always recommend the School for the study of tropical medicine."

Ambrose Okeke
Nigeria

Read more about our students at:
www.lshtm.ac.uk/study/profiles

Introduction to Infectious Disease Modelling & its Applications

Course Organisers: Dr Emilia Vynnycky and Dr Richard White
Email: *emilia.vynnycky@lshtm.ac.uk*
Annually: June–July for 10 days

This course is intended to introduce professionals working on infectious diseases in either developing or developed countries to this exciting and expanding area. The emphasis will be on developing a conceptual understanding of the basic methods and on their practical application, rather than the manipulation of mathematical equations. The methods will be illustrated by 'hands-on' experience of setting up models in spreadsheets as well as other specialist modelling packages, small group work, and seminars in which the applications of modelling will be discussed. By the end of the course, participants will have gained an understanding and practical experience of the basics of infectious disease modelling which will be useful in their future work. The course makes use of Excel, and a specialist modelling package (Berkeley Madonna).

The course is designed for individuals interested in expanding their knowledge of the techniques available for analysing and interpreting epidemiological data on infectious diseases and for predicting the impact of control programmes, including medical and health professionals, policymakers, veterinary scientists, medical statisticians and infectious disease researchers. Specialist mathematical training is not a prerequisite. Individuals with degrees in mathematical disciplines working on some aspect of infectious disease dynamics and/or control, who wish to learn about the potential of infectious disease modelling will also benefit. Familiarity with spreadsheet packages is desirable.

Issues in Global Non-Communicable Diseases: from Research to Policy

Course Organisers: Dr Sophie Hawkesworth, Dr Pablo Perel and Dr Karen Lock
Email: *sophie.hawkesworth@lshtm.ac.uk*
Annually: February for 5 days

Non-communicable diseases (NCDs), such as cardiovascular disease and cancer, are responsible for the greatest burden of death and disability globally. No longer viewed as diseases of affluence, NCDs are of critical importance to all countries and are firmly on the global political agenda. Successfully addressing the complex causes of these diseases and reducing the global burden will involve interdisciplinary approaches and a systems viewpoint. Researchers and policy makers from around the world working in this field thus require a critical understanding of the commonalities and differences in perspectives across sectors, which will enable them to work effectively within a global ecological perspective on NCDs.

The School's Centre for Global Non-Communicable Diseases fosters collaboration between NCD researchers, across a range of settings and disciplines and is in a unique position to deliver this multi-disciplinary course. By focusing on common upstream determinants of those NCDs with the highest disease burden and impact, the course addresses the current paradigms and controversies in epidemiology, health systems and policy, equipping participants with the language and skills to progress further in their fields. The course has a global focus, with experts and examples from a range of settings outside of the UK.

Photo courtesy Jennifer Stevenson

Laboratory Diagnosis of Malaria

Course Organisers: Ms Claire Rogers
Email: *claire.rogers@lshtm.ac.uk*
Annually: June–July for 3 days

This is an intensive and very practical course with the emphasis on the identification of parasites by microscopy using thin and thick blood films. Staining methods will be discussed as well as the effects of EDTA and drugs on parasite morphology. Parasitaemia counts will also be covered in the practical, along with the use of non-blood film methods of diagnosis, such as antigen detection dipstick methods. Practicals will be complemented with relevant lectures on malaria as a disease, laboratory diagnosis and the role of serology and molecular diagnosis. Staff of the Malaria Reference Laboratory at the School will give instruction on the course. A comprehensive laboratory manual is included and participants will be given, where possible, reference material to take back to their own laboratories.

Registration has been applied for with the Institute of Biomedical Science and the Royal College of Pathologists for Continuing Professional Development. This course is aimed primarily at haematologists and others involved in the laboratory identification of human malaria.

Laboratory Diagnosis of Parasites

Course Organisers: Ms Claire Rogers
Email: *claire.rogers@lshtm.ac.uk*
Annually: June–July for 5 days

This is a practical course with the emphasis on the identification of gut parasites by microscopy and includes methods for preparation of samples and an evaluation of commercially available kits. The use of staining methods for the identification of gut protozoa will also be considered. Practicals will be supported by appropriate lectures including lectures on the differentiation of Entamoeba histolytica from the morphologically identical E. dispar and the current thinking on the pathogenicity of Blastocystis hominis and Dientamoeba fragilis. Parasites associated with HIV and other immunosuppressive disorders will also be included, as will the isolation and identification of the facultative parasites Acanthamoeba and Naegleria.

One afternoon will be devoted to the processing and identification of malaria, including the use of commercial ‘malaria dipstick’ tests currently available. This is aimed at individuals who may find themselves having to identify malaria infection where it is not part of their routine work.

Staff of the parasite reference laboratory in the Faculty of Infectious & Tropical Diseases will give instruction on the course. A comprehensive laboratory manual is included and participants will be given, where possible, reference material to take back to their own laboratories. Registration has been applied for with the Institute of Biomedical Science and the Royal College of Pathologists for Continuing Professional Development. This course is aimed primarily at microbiologists and others involved in the laboratory identification of human parasites.

Methods for Addressing Selection Bias in Health Economic Evaluation

Course Organiser: Dr Richard Grieve
Email: *richard.grieve@lshtm.ac.uk*
Annually: July for 2 days

Health economic evaluations often make use of observational data. A major concern is that cost-effectiveness results may be subject to selection bias. While sophisticated methods for addressing selection bias are routinely used in other literatures, their use in economic evaluation is limited. This course offers an in-depth description of methods for addressing treatment selection bias. These methods include regression, propensity score matching and a novel approach that extends propensity score matching, as well as genetic matching. The course will highlight underlying assumptions and the pros and cons of each method. There is a strong emphasis on applying the methods in practice, with practical sessions illustrating how to implement each technique using readily available software (Stata and R). The course is aimed at health economists, or statisticians with an interest in health economic evaluation. It is envisaged that participants will be interested in undertaking or interpreting cost-effectiveness analyses that use observational data.

Model Fitting and Inference for Infectious Disease Dynamics

Course Organiser: Dr Sebastian Funk
Email: *sebastian.funk@lshtm.ac.uk*
Annually: July for 2 days

There is a growing demand for mathematical modellers in public health to explain observed disease trends and predict the outcome of interventions, often by synthesising information from different data sources. At the same time, increasing computational power and methodological advances are providing exciting opportunities to fit ever more complex mechanistic models to data. In light of the speed of methodological advances and the broad nature of the field, the task of choosing from the available methods and packages, as well as putting them into practice, can be daunting. With this course, we aim to bridge the gap between state-of-the-art statistical inference methods and training in infectious disease modelling.

This course is aimed at students and researchers who are working with dynamic models of infectious disease and would like to learn about state-of-the art methods of matching these to data. Basic knowledge of infectious disease modelling is required. Some experience in using R is essential.

Pathogen Genomics and Genomic Epidemiology of Infectious Disease

Course Organiser: Dr Taane Clarke
Email: *taane.clark@lshtm.ac.uk*
Annually: September for 2 days

Infectious diseases, such as HIV/AIDS, malaria, pneumonia and tuberculosis account for 25 per cent of global mortality and more than half of all deaths in children under the age of five. The genetic epidemiology of these diseases can be complex, especially as they may involve several genomes, including the host, pathogen(s) and a vector.

High throughput genotyping and sequencing technologies are providing insights into these genomes, thereby revolutionising genetic epidemiological studies and biomedical research. It is now possible to genotype millions of point mutations using genotyping chips, facilitating large-scale genome-wide

studies of association (GWAS) and genic selection, particularly in humans. Similarly, the application of second generation sequencing technologies (e.g. Illumina HiSeq2000) is leading to whole genome information on large numbers of pathogens, making it feasible to track their evolution over time and space, as well as identify variants correlated with phenotypes such as infection behaviour.

This course offers hands-on experience of processing sequencing data to construct genomes, identifying genomic variants and applying phylogenetic, GWAS and population genetic analyses to them. The course covers the fundamentals of GWAS and selection analysis, and post-genome translation, in human and pathogen settings. High profile examples, including malaria, TB and MRSA, will be used to illustrate the concepts, and there is a strong emphasis on how to implement the methods in practice, with the majority of sessions computer-based.

Practical Pharmacoepidemiology

Course Organiser: Dr Krishnan Bhaskaran
Email: *krishnan.bhaskaran@lshtm.ac.uk*
Annually: September for 4 days

The course is designed for students with a basic grounding in epidemiological methods and concepts and/or some prior knowledge of pharmacoepidemiology. During this course students will: develop their knowledge of pharmacoepidemiological concepts and methods; gain practical experience of testing study feasibility and performing analyses in Stata, using primary care data from the General Practice Research Database (prior experience of Stata not required); gain insight into the application of pharmacoepidemiology in pharmaceutical risk management.
Course content will include: overview of study designs for pharmacoepidemiology; measurements in pharmacoepidemiology – including outcomes, exposures, co-variates and issues of validation; the practicalities of study design and subsequent feasibility testing; overview of data resources for pharmacoepidemiology and factors covering the choice of database; overview of methods for handling bias and confounding – including matching, regression models and propensity scores; the practicalities of data analysis using data from the General Practice Research Database; overview of clinical trials in pharmacoepidemiology, including real world randomisation; use of registries in pharmacoepidemiology; meta-analysis – overview and practical application; development of quantitative harm-benefit models. This course is aimed primarily at personnel concerned with the safe use of medicines, particularly in developed countries.

Researching Gender-Based Violence: Methods and Meaning

Course Organisers: Dr Karen Devries, Professor Charlotte Watts, Dr Cathy Zimmermanand Professor Andrew Smith
Email: *charlotte.watts@lshtm.ac.uk*
Annually: for 5 days

The course is intended for individuals who will conduct or commission research on gender-based violence. It will be of particular interest to those who want to add a 'violence component' to a study that is quantitative or qualitative or an intervention evaluation. It is relevant for individuals working on health-related topics such as sexual and reproductive health, maternal health, HIV, mental health and substance use.

Upon completing the course, participants will have a strong understanding of current gold standard methods to conceptualise and measure violence exposures, and knowledge of various methodological techniques for assessing the relationship between violence and health outcomes. Participants will also learn about practical issues faced when meeting ethical and safety obligations.

Statistical Analysis with Missing Data using Multiple Imputation and Inverse Probability Weighting

Course Organisers: Dr Jonathan Bartlett, Dr James Carpenter and Professor Mike Kenward
Email: *jonathan.bartlett@lshtm.ac.uk*
Annually: July for 3 days

Missing data frequently occur in both observational and experimental research. They lead to a loss of statistical power, but more importantly, may introduce bias into the analysis. In this course we adopt a principled approach to handling missing data, in which the first step is a careful consideration of suitable assumptions regarding the missing data for a given study. Based on this, appropriate statistical methods can be identified that are valid under the chosen assumptions. The course will focus particularly on the practical use of multiple imputation to handle missing data in realistic epidemiological and clinical trial settings, but will also include an introduction to inverse probability weighting methods and new developments which combine these with multiple imputation.

Systematic Reviews & Meta-analyses of Health Research

Course Organisers: Dr Alma Adler and Ms Katharine Ker
Email: *alma.adler@lshtm.ac.uk*
Annually: September for 5 days

The increasing amount of research information produced each year makes it impossible for users of health research to evaluate and keep up to date with the new evidence. Consequently systematic reviews play a vital role in providing reliable syntheses of research for evidence-based decision-making. This five-day course will provide participants with a basis in the design, analysis and interpretation of systematic reviews of health research. Participants will be given grounding in all aspects involved in conducting a systematic review and meta-analysis, and will have the opportunity to gain practical experience of the tasks involved. By the end of the course, participants will be equipped with the necessary skills to conduct their own high-quality systematic reviews of health research. At the end of the course the students should be able to: describe the principles of systematic reviews and interpret their results; critically appraise existing systematic reviews; conduct their own high-quality systematic reviews and meta-analysis.

This course is mainly intended for health care researchers including clinicians, nurses, epidemiologists and public health practitioners, who are interested in learning the key concepts involved in the design and production of high-quality systematic reviews. It will be assumed that participants will have no prior experience, but will have a basic understanding of statistics and epidemiological study designs.

Dispensing medicine at a medical camp in Kabarnet, Kenya. Photo courtesy Boniface Oyugi.

Investigating antimicrobial durgs in Cambodia.
Photo courtesy Dr Shunmay Yeung

Travel Medicine

Course Organiser: Dr Ron Behrens
Email: *ron.behrens@lshtm.ac.uk*
Annually: for 5 days

This course is designed for physicians and nurses who provide a pre-travel health service. It aims to provide general practitioners, practice nurses and other health professionals with an opportunity to develop and update their knowledge and skills in travel medicine. The main objectives are to make practitioners aware of: the role of practitioners in protecting the health of the traveller; major risks associated with travel; appropriate methods for reducing and managing travel-associated illness and hazards; training in risk assessment and communicating risks to travellers; communication skills to enhance their abilities as health educators and the role of information technology in travel medicine.

The course will cover a range of topics pertinent to the everyday practice of travel medicine, including: operating a travel clinic; accessing travel health information; consultation and communication skills; vulnerable travellers; accidents and repatriation; vaccines in practice; fitness to travel; medico-legal issues; preparing the long-term traveller; issues in malaria prophylaxis; vector-borne disease; deep vein thrombosis in travel; and food and waterborne disease. Teaching will be through lectures, discussions, role play, problem-solving workshops and the use of technology to access current health information. Workshops on consultation planning and management will be included in the programme. A visit to the Hospital for Tropical Diseases Travel Clinic and the National Travel Health Network and Centre, based in the hospital, can be undertaken. The course is open to registered medical practitioners, registered nurses and other health care professionals with an interest in Travel Medicine.

Applications

You will need to complete the relevant application form and the equal opportunities form, which can be obtained from the appropriate short course page at: *www.lshtm.ac.uk/study/cpd*

Applications should be submitted using any one of the following methods:

Online on the relevant course web-page.

Email: *shortcourses@lshtm.ac.uk*

Mail: Registry,
London School of Hygiene
& Tropical Medicine,
Keppel Street,
London WC1E 7HT,
United Kingdom

Fax: +44 (0) 20 7299 4656

Staff profiles

Dame Claire Bertschinger
is the Course Director for the Diploma in Tropical Nursing and remains passionately committed to issues in the developing world. She was made a Dame in the 2009 New Year Honours List for services to Nursing and to International Humanitarian Aid and is a Deputy Lieutenant of Hertfordshire.

Following on from a successful nursing career in the UK, Claire's first post abroad was as a medic for the Scientific Exploration Society in Panama, Papua New Guinea and Sulawesi. She went on to accumulate vast experience from many years working in emergency disaster relief, primarily in war zones, with the International Committee of the Red Cross (ICRC). She has worked in over a dozen countries including Afghanistan, Kenya, Lebanon, Sudan, Sierra Leone, Uganda, Ivory Coast and Liberia.

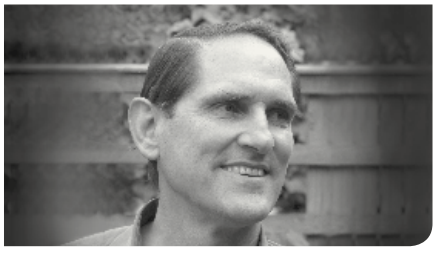
Prior to joining the London School of Hygiene and Tropical Medicine Claire worked as training officer in the Health Division of ICRC Geneva.

She was awarded the Florence Nightingale Medal in recognition of her work in conflict situations, gained a Masters in Medical Anthropology, and has published her biography Moving Mountains (Transworld, 2005) to critical acclaim.

She has subsequently received Woman of the Year, Window to the World award, Human Rights and Nursing Award and Honorary Doctorate's from a 5 UK institutions.

Claire says:

"I am committed to training medical professionals to work in resource poor settings and have continually sought to raise awareness of the key issues in global public health. I am convinced of the centrality of education in making and sustaining any improvements in low to middle income countries. It has been shown that for women in particular, increased education not only radically improves their own health, but also that of their families and children. The empowerment of women, educationally and economically, is a major weapon in the fight against child mortality."



Professor David Ross
is Professor of Epidemiology & International Public Health. He is also leads the two-week short course on Adolescent Health in Low- and Middle-Income Countries.

After spending his first eight years in Nigeria, David went to school in the UK, and then trained in medicine and epidemiology in Oxford University. David has been on the academic staff of the London School of Hygiene & Tropical Medicine since 1983, where he also did his PhD. David became a Professor of Epidemiology and International Public Health in 2006. He is the leader of the Health of Adolescents and Young People Theme within the School's MARCH (Maternal, Adolescent, Reproductive and Child Health) Centre. He is also a member of the Technical Steering Committee of the WHO's Maternal, Newborn, Child and Adolescent Health Department, one of the leaders of the Lancet Commission on Adolescent Health and Wellbeing, and an advisor to the International Network for Demographic Evaluation of Populations and Their Health.

David's main current research and teaching relate to adolescent health, and the prevention and treatment of HIV and other sexually transmitted infections. He is currently Co-PI of two sport-based HIV prevention trials in schools in South Africa (GOAL) and Zimbabwe (MCUTS2), is involved in a trial of health promoting schools in Bihar, India, and is also researching delivery of human papillomavirus vaccination, and integration of prevention of mother-to-child transmission of HIV with other antenatal services.

With colleagues in WHO, he coordinates a two-week course at the School on adolescent health in low and middle-income countries each June. This course aims to equip participants with the knowledge, conceptual frameworks and tools necessary to strengthen health sector policies and programmes for adolescent health and development in LMICs. It is highly interactive and involves faculty from the School, WHO, the Obafemi Awolowo University in Ile-Ife Nigeria, and the Public Health Foundation of India.

Since joining the School in 1983, David has spent almost ten years based in Africa including Ethiopia, Sudan, Egypt, Ghana and Tanzania.

Modules offer an opportunity for individuals to update their skills, enhance career development and study with health professionals in a multicultural environment

London-based MSc Modules

The School offers 19 MSc courses in London, all designed on a modular basis to provide maximum opportunity for student choice. A wide range of modules is available within these programmes and places are offered to individuals who wish to undertake them as a single short course of study. These modules offer an opportunity for individuals to update their skills, enhance career development and study with health professionals from other institutions in a multicultural environment.

Each module has its own teaching style and may include lectures, practicals, seminars, group work, and private study. Assessment is an integral part of each module and is designed to enhance the learning practice. All participants are required to complete the assessment tasks. Most modules are timetabled for two and a half days per week at the same time each week for five weeks. The time students are required to be in attendance at the School will vary according to the teaching strategy of the module, but will usually be between 20 and 45 hours. Learning time, including reading, is estimated to be 100 hours for each module.

Those modules in the same half of the week run concurrently and only one of these may be taken in any given year. It should be noted that some modules have prerequisites. The School gives priority to the needs of students registering for Master's and Research Degrees, and as places on any module may be limited, early application is advised. Modules take place from 9.30am Monday to 12.30pm Wednesday or from 2pm Wednesday to 5pm Friday, over the weeks in question, with the exception of the Autumn Term modules, which take place on a single day each week from 9.30am to 12.30pm, or 2pm to 5pm over the weeks noted. Information on the fees for modules is available on page 119 of this prospectus. A list of modules expected to be available is given overleaf. Full details of the content of these modules are at: *www.lshtm.ac.uk/study/cpd/shortcourseunits.*

Credits

The School awards Credits for completion of modules – subject to satisfactory attendance and successfully passing the assessment. All our modules are at Master's level. Our system is consistent with the English and European (ECTS) credit systems; most School modules are worth 15 English credits, equivalent to 7.5 ECTS credits. Credits will be shown on module completion transcripts, to help other educational institutions and employers more easily understand the work involved.

Applications

Please apply for short courses online via the relevant course page. Our short course directory can be found at *www.lshtm.ac.uk/study/cpd/other.html.* The application form for all modules can be downloaded at *www.lshtm.ac.uk/study/cpd/shortcourseunits.html.*

Email: *shortcourses@lshtm.ac.uk*
Tel: +44 (0) 20 7299 4648

MSc Modules

The list below shows a selection of modules expected to run in the coming academic year.
A complete and up-to-date list can be found on our website at *www.lshtm.ac.uk/study/cpd/shortcourseunits.html.*

- Advanced Diagnostic Parasitology
- Advanced Immunology
- Advanced Statistical Methods in Epidemiology
- Advanced Statistical Modelling
- Advanced Training in Molecular Biology
- AIDS
- Analysing Survey and Population Data
- Analysis of Hierarchical and Other Dependent Data
- Analytical Models for Decision Making
- Antimicrobial Chemotherapy
- Applying Public Health Principles in Developing Countries
- Bacteriology and Virology
- Basic Epidemiology
- Basic Parasitology
- Basic Statistics for Public Health and Policy
- Childhood Eye Disease and Ocular Infections
- Clinical Bacteriology
- Clinical Immunology
- Clinical Infectious Diseases
- Clinical Trials
- Clinical Virology
- Communicable Disease Control in Developed and Middle-Income Countries
- Conflict and Health
- Control of Reproductive Tract Infections/ Sexually Transmitted Infections
- Critical Skills for Tropical Medicine
- Current Issues in Safe Motherhood and Perinatal Health
- Demographic Methods
- Designing Disease Control Programmes in Developing Countries
- Drugs, Alcohol and Tobacco
- Economic Analysis for Health Policy
- Environment, Health and Sustainable Development
- Environmental Epidemiology
- Environmental Health Policy
- Epidemiology and Control of Communicable Diseases
- Epidemiology and Control of Malaria
- Epidemiology in Practice
- Epidemiology of Blinding Eye Diseases
- Epidemiology of Non-Communicable Diseases
- Ethics, Public Health and Human Rights
- Family Planning Programmes
- Foundations in Reproductive Health
- Foundations of Medical Statistics
- Fundamental Public Health Nutrition
- Fundamentals in Global Mental Health
- Genetic Epidemiology
- Globalisation and Health
- Health Policy, Process and Power
- Health Promotion Approaches and Methods
- Health Promotion Theory
- Health Services
- Health Systems
- History and Health
- How to Plan and Implement a VISION 2020 Project
- Immunology of Infectious Diseases
- Immunology of Parasitic Infection
- Health Promotion
- Introduction to Disease Agents and Their Control
- Introduction to Health Economics
- Issues in Public Health
- Maternal and Child Nutrition
- Medical Anthropology and Public Health
- Modelling and the Dynamics of Infectious Diseases
- Molecular Biology
- Molecular Biology and Recombinant DNA Techniques
- Molecular Biology Research Progress and Applications
- Molecular Cell Biology and Infection
- Molecular Epidemiology of Infectious Diseases
- Molecular Virology
- Mycology
- Non-Communicable Eye Disease
- Nutrition in Emergencies
- Nutrition Related Chronic Disease
- Nutrition Programme Planning
- Packages of Care for Mental Disorders
- Parasitology and Entomology
- Population Dynamics and Projections
- Population Poverty and Environment
- Population Studies
- Principles and Practice of Public Health
- Principles of Social Research
- Public Health Programmes in Eye Care
- Sexual Health
- Skills for Field Projects in Eye Care
- Skills, Resources and Technology for Vision 2020
- Social Epidemiology
- Sociological Approaches to Health
- Spatial Epidemiology in Public Health
- Statistical Methods in Epidemiology
- Statistics for Epidemiology and Population Health
- Survival Analysis and Bayesian Statistics
- Tropical Environmental Health
- Vector Biology and Vector–Parasite Interaction
- Vector Sampling, Identification and Incrimination

Data collection in Nepal. Photo courtesy Lauren D'Mello-Guyett.

Continuing Professional Development by Distance Learning

These courses aim to facilitate the transfer of the School's knowledge in public health, epidemiology and infectious diseases to a wider community and are designed for online learning.

Continuing Professional Development (CPD) is the means by which members of professional associations maintain, improve and broaden their knowledge and skills and develop the personal qualities required in their professional lives. It is in the public interest that professionals maintain and develop their professional knowledge and skills throughout their life. The School's CPD courses help to ensure the maintenance and improvement of competence in areas related to global and public health. The School is rapidly developing its programme of courses. Further details can be found at *www.lshtm.ac.uk/study/cpd.*

Distance Learning MSc Modules

Individual Modules from the Distance Learning courses

Students can choose to undertake one or more modules from our distance learning teaching programme as a single course of study. A list of the individual modules available can be found opposite.

Credits

The School awards credits for completion of modules – subject to satisfactory attendance and successfully passing the assessment. All our modules are at Master's level. Our system is consistent with the English and European (ECTS) credit systems; most modules are worth 15 English credits, equivalent to 7.5 ECTS credits. Credits will be shown on module completion transcripts, to help other educational institutions and employers more easily understand the work involved. Credits obtained may then be credited towards one of our distance learning Postgraduate Certificate, Postgraduate Diploma or MSc courses, provided you register for them within four years of completing the short course module.

Themed groups

Alternatively, modules may also be taken as themed groups. The three themes available are Epidemiology and Statistics for Health, Key Infectious Diseases and Health Economics. The modules and themed groups of modules enable participants to refresh their skills or develop new skills, and to keep in touch with the latest research and knowledge underlying efforts to improve public health worldwide. Each module is worth 10 or 15 postgraduate credits. Details of the themes can be found at: *www.lshtm.ac.uk/study/cpd/dlmodules.*

The modules and themes are suitable for professionals who wish to refresh or modernise their skills in key areas without taking a full postgraduate course. These include those working in NGOs, government health departments, clinicians, researchers, scientists or other professionals who are exposed to some of the topics covered and wish to learn more.

Applications

Applications should be submitted electronically to the University of London International Programmes *www.londoninternational.ac.uk*. Each module has a six-character code (for example, EPM101) which should be used on the application form. The deadline for submission of distance learning short course applications is 31 August. Further information on all our distance learning teaching programmes can be found on page 55 of this prospectus.

Continuing Professional Development is the means by which members of professional associations maintain, improve and broaden their knowledge and skills and develop the personal qualities required in their professional lives.

Clinical Trials

All Clinical Trials modules require good regular internet access as the modules are taught fully online.

Fundamentals of Clinical Trials – CTM101

Basic Statistics for Clinical Trials – CTM102

Clinical Trials in Practice – CTM103

Reporting and Reviewing Clinical Trials – CTM104

Protocol Development – CTM201

Trial Designs – CTM202

Project Management and Research Co-ordination – CTM203

Regulatory Affairs, Good Clinical Practice and Ethics – CTM204

Data Management – CTM205

Data Monitoring and Interim Analyses – CTM206

Design and Analysis of Epidemiological Studies – CTM207

Further Statistical Methods in Clinical Trials – CTM208

Cluster Randomised Trials – CTM209

Epidemiology

Fundamentals of Epidemiology – EPM101

Statistics with Computing – EPM102

Practical Epidemiology – EPM103

Writing and Reviewing Epidemiological Papers – EPM105

Study Design: Writing a Grant Application EPM201

Statistical Methods in Epidemiology – EPM202

Epidemiology of Communicable Diseases EPM301

Modelling and the Dynamics of Infectious Diseases – EPM302

Advanced Statistical Methods in Epidemiology – EPM304

Human Genetic Epidemiology – EPM306

Global Epidemiology of Non-communicable Diseases – EPM307

Global Health Policy

The Economics of Global Health Policy – GHM101

The Politics of Global Health Policy – GHM102

Environmental Change and Global Health Policy – GHM103

Issues in Global Health Policy – GHM104

Health Systems – GHM201

Infectious Diseases

Principles of Biostatistics and Epidemiology IDM101

Principles of Biology – IDM102

Biology of Infectious Diseases – IDM103

Control of Infectious Diseases – IDM104

Bacterial Infections – IDM201

Nutrition and Infection – IDM202

Parasitology – DM203

Viral Infections – IDM204

Healthcare-associated Infections – IDM205

Water and Sanitation – IDM210

Immunology of infection and vaccines – IDM213

Epidemiology and Control of Infectious Diseases in Developing Countries – IDM301

HIV/AIDS – IDM501

Tuberculosis – IDM502

Malaria – IDM503

Research Design, Management and Analysis – IDM601

Public Health

Basic Epidemiology – PHM101

Basic Statistics for Public Health and Policy – PHM102

Introduction to Health Economics – PHM103

Principles of Social Research – PHM104

Issues in Public Health – PHM105

Environment, Health and Sustainable Development – PHM106

Health Promotion Theory – PHM107

Health Services – PHM108

Health Policy, Process and Power – PHM109

Analytical Models for Decision Making – PHM201

Economic Analysis for Health Policy – PHM203

Economic Evaluation – PHM204

Environmental Epidemiology – PHM205

Environmental Health Policy – PHM206

Health Care Evaluation – PHM207

Financial Management – PHM208

Globalisation and Health – PHM209

Managing Health Services – PHM210

Medical Anthropology in Public Health – PHM211

Organisational Management – PHM212

Principles and Practice of Health Promotion – PHM213

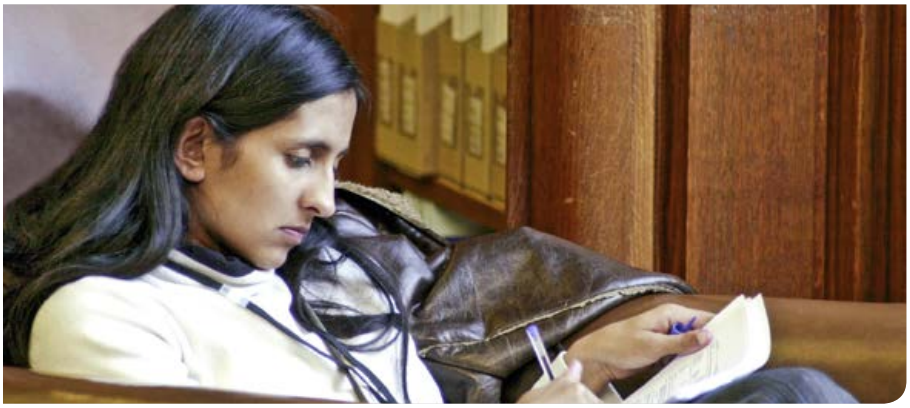
History and Health – PHM215

Sexual Health – PHM216

Applied Communicable Disease Control – PHM218

Master's graduates celebrate: graduation ceremonies take place in March each year.

Other forms of Continuing Professional Development



Postdoctoral studies

Postdoctoral studies may involve supervised research design or analysis, the use of School facilities such as the library or just using the School as a place to write up work. The School is always glad to consider applications from potential students who wish to undertake such training, or from their employers or sponsors, and is usually able to offer a suitable programme of 'occasional studies'. The School gives priority to the needs of students registering for Master's and Research Degrees, and the availability of teaching capacity and/or class and bench space for postdoctoral students may be limited in some areas. Please apply online at: *www.lshtm.ac.uk/study/cpd*
Email: *shortcourses@lshtm.ac.uk*

Occasional studies

The School aims to ensure that its range of taught courses and research training programmes meets most training needs within its fields of expertise. The School is happy to respond to those who require training which differs from this, perhaps attendance at just one element of a course, or laboratory training in a particular research technique, rather than the wider research training needed for the research degree. Other needs might be for academic supervision of a research project which forms part of a research degree of another institution (sometimes called a 'split', or 'sandwich' PhD). The scale of charges levied for occasional studies is in accordance with the level of tuition fees charged to overseas students for research studies in the Faculty concerned. Placements of varying lengths may be organised, and the fees levied for periods of less than one academic year are normally calculated with reference to the annual charge. The School reserves the right to charge such special fees as may be necessary to recover the full costs of providing the requisite training. Individuals or organisations wishing to discuss such training possibilities are invited to contact the admissions office, in writing, outlining their needs and stating the faculty and academic department to which they would like to be attached. Students who are registered for research degrees elsewhere and who wish to apply for occasional studies must obtain the permission of the institute where they are registered. The School gives priority to the needs of students registering for Master's and Research Degrees, and the availability of teaching capacity and/or class and bench space for occasional students may be limited in some areas.

International development

Distance Learning for Development (DL4D) is a collaboration with the London International Development Centre, of which the School is a partner. The DL4D website gives information about high-quality postgraduate training to those working in the field of international development. This site has information on over 140 online short courses from the University of London, including the London School of Hygiene & Tropical Medicine. These courses cover the range of skills and knowledge areas expected of the international development professional, including:

- Essential skills for implementing and managing projects in developing countries;
- Introductions to macro-level economic and policymaking practice;
- Advanced courses in health, sanitation, agriculture and environmental studies.

All courses are available as standalone units of study. They may also contribute towards a broader programme of learning, leading to internationally recognised higher level qualifications. Some courses are only available at certain times of year. Check the details of the courses you are interested in for more information on the DL4D website at: *www.dl4d.ac.uk*

Apply online at: *www.lshtm.ac.uk/study/cpd*

Email: *shortcourses@lshtm.ac.uk*

General Information

The School's courses attract highly motivated graduates and experienced professionals who go on to contribute to, and play prominent roles in, their chosen careers in research or practice.

Qualifications for Admission

Successful applicants will be sent a formal offer of admission, known as a 'Conditional Offer'. This offer will contain conditions which must be met before an applicant can commence study. These may include proof of proficiency in English or proof that funds are available to meet the cost of study.

Entrance requirements

The **normal** minimum entrance qualification for registration is **at least one** of the following:

- for MSc, a second-class honours degree from a UK university, or an overseas qualification of an equivalent standard, in a subject appropriate to that of the course of study to be followed;
- for MPhil, PhD, DrPH, an upper second-class honours degree from a UK university, or an overseas qualification of an equivalent standard, in a subject appropriate to that of the course of study to be followed;
- a registrable qualification appropriate to the course of study to be followed, in medicine, dentistry or veterinary studies;
- a master's degree in a subject appropriate to the course of study to be followed;
- a professional qualification obtained by written examination and approved by the University of London as an appropriate entrance qualification for the degree in question;
- for DrPH candidates, a minimum of two years' appropriate experience and, normally, a master's degree are required.

Individual courses may require additional entrance requirements to those listed above. Details of these can be found on the relevant course pages.

Candidates who **do not** meet the minimum entry requirement but who have relevant professional experience may still be eligible for admission and are encouraged to apply.

It is essential that students should have an adequate command of the English language to benefit from studies at the School.

In some instances when applying for DrPH, MPhil or PhD places, candidates may be required to register for a related MSc course at the School before being allowed to register for a research degree. In such cases, registration for the research degree will be dependent upon a satisfactory level of achievement in the MSc, usually well above the minimum required to pass the MSc. In some areas of clinical research, General Medical Council registration and medical defence cover may also be required.

Proficiency in English

It is essential that students should have an adequate command of the English language to benefit from studies at the School. Candidates will be required to obtain an acceptable score in an approved English Language Test if their first language is not English or if their studies at university have not been conducted wholly in the medium of English. The School may also request an applicant to take a test even if the above conditions have been met. Candidates must achieve the **minimum required scores in all test components** and send evidence of their English language ability before the start of the course. Details of the English tests accepted by the School are as follows:

British Council International English Language Testing System (IELTS)

The British Council,
Bridgewater House,
58 Whitworth Street,
Manchester M1 6BB,
United Kingdom
Website: *www.ielts.org*

or from:
British Council offices worldwide:
Tel: +44 (0) 161 957 7000

The School accepts a minimum score of 7.0 overall (including a minimum score of 7.0 in the written component), and a minimum score of 5.5 in the listening, reading and speaking components.
The minimum scores and grades given above are subject to review. Intensive courses in English are held by the British Council and other organisations. Further information may be obtained from their website at: *www.britishcouncil.org/english.*

or from:
Education Information Service of the British Council,
10 Spring Gardens,
London SW1A 2BN,
United Kingdom

From British Council offices overseas, or from:
EnglishUK,
56 Buckingham Gate,
London SW1E 6AG,
United Kingdom

Tel: +44 (0) 20 7802 9200
Email: *info@englishuk.com*

Website: *www.englishuk.com*

Pearson PTE Academic

The School requires a minimum overall score of 68 (including a minimum score of 68 in the written component), and a minimum score of 59 in the listening, reading and speaking components. For information about this test, contact Pearson PTE:

Email: *pte-acustomersupportemea@pearson.com*
Tel: +44 (0) 161 855 7431
Website: *www.pearsonpte.com*

Cambridge English Advanced Test

Overall Score B.

References

The details of two referees should be submitted in the online application form. Referees will then be contacted to complete their reference online. Applicants may also upload references as supporting documents in the online application form. Applications will not be considered until references have been received.

Curriculum Vitae

Applicants must also submit a detailed Curriculum Vitae (Résumé) with their application.

Evidence of qualifications

All applicants should submit a full transcript of previous studies with their application. Successful applicants will be required to provide original evidence of their academic qualifications before the start of the course.

Applications for Study

Applicants with disabilities

The School welcomes applications from students with disabilities and aims to offer as much assistance as possible to accommodate needs. The School will take all reasonable steps to ensure that the application procedure, courses and examinations are organised and delivered to give the best opportunity for full participation by all students. Please let Registry know if there is anything further that can be done to make the application and selection process as accessible as possible. Applicants with a disability (including long-term medical conditions and dyslexia) can contact the student adviser who will discuss applicants' needs and any support required. The student adviser is also available to provide confidential advice and support and to answer queries at any point in a student's studies: *disability@lshtm.ac.uk*.

Further information is available on the School's website.

Application for London-based study

Applications can be made online on the relevant course webpage.

The School will take all reasonable steps to ensure that the application procedure, courses and examinations are organised and delivered to give the best opportunity for full participation by all students.

Master's courses

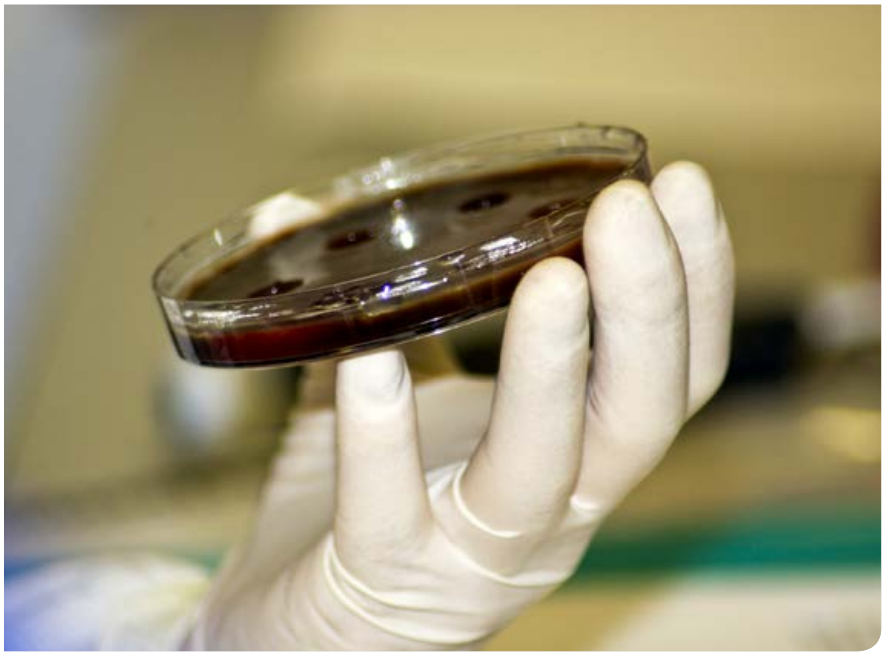
Applicants wishing to be considered for School scholarships are advised to apply by 1 March. As courses can rapidly become full, other applicants are also advised to apply before this date. Although early application is encouraged, applications are always considered until all places on the course have been filled. All applicants should be able to start the course on the first day of the academic year, normally the last Monday in September. Full-time courses last one year while part-time course duration is two years. Students interested in part-time study should contact the appropriate course director, via Registry, to discuss course requirements and likely timetables, and should read the Master's degree section on pages 20–60 of this prospectus. There are two ways of undertaking part-time study:

- attending part-time throughout the two years: students need to be available for up to four or five half days every week for 27 weeks per year. Evidence may be required to prove that applicants are able to commit this minimum period of time to their study;
- attending full-time for modules in the first two terms in Year 1 (September–March), and undertaking third term modules, exams and project in Year 2 (April–September). Such an option may be attractive to applicants who are unable to be released from employment for a continuous twelve-month period. This option is called split-study. The UK immigration rules state that in order to qualify for a student visa, you must be studying full-time. Therefore, overseas applicants applying for a student visa should only apply for full-time or split-study mode of attendance. Please carefully check the visa requirements for your own country.

MPhil, PhD, DrPH and occasional studies

There is no closing date for applications for these courses; however, processing of applications can take up to three months and prospective students are therefore encouraged to apply as early as possible. Applicants who will require a visa to study in the UK are advised to have an offer from the School by mid-June, for a September start date. Applications for admission to the School should be made to Registry using the online application form and not directly to academic faculties. All applicants should include with their application a short research proposal (maximum 1,500 words including footnotes and references). This should indicate the area in which the student wishes to specialise, enabling the application to be directed to appropriate potential supervisors. The research proposal is also an important way of indicating the extent to which the student already understands the background to their proposed research, and the range of methods which may be employed. In addition, it will help the School to decide whether coursework may be required in the first year. Applicants for DrPH studies should indicate where they would prefer to carry out their organisational and policy analysis.

There is no closing date for applications for research courses; however, processing of applications can take up to three months and prospective students are therefore encouraged to apply as early as possible.



Continuing professional development

Students wishing to apply for **London-based short courses or MSc Modules** should apply online at: *www.lshtm.ac.uk/study/cpd.* Students wishing to apply for online short courses should apply at: *www.lshtm.ac.uk/study/cpd*

Application for individual Distance Learning modules should be made to the University of London International Programmes in the same way as Master's degrees by distance learning.

Application for study by Distance Learning

Application for Master's degrees by distance learning should be made directly to the University of London International Programmes website: *www.londoninternational.ac.uk/applications-admissions/how-apply.*

Applications should be submitted to the University of London by 30 June together with the required accompanying documentation. Further information on how to apply to the distance learning course can be requested directly from the International Programmes Office:

The Information Centre,
University of London,
Stewart House,
32 Russell Square,
London WC1B 5DN,
United Kingdom

Tel: +44 (0) 20 7862 8360/8361/8362
Fax: +44 (0) 20 7862 8358
Website*: www.londoninternational.ac.uk/contact-us*

Tuition Fees & Expenses

Tuition fees are reviewed annually. The fees shown include registration, library membership and examination fees.

All fees listed in this prospectus are shown at the 2014/15 levels and are given as a guide only. Fees for 2015/16 will be available on the School website from early Spring 2015 at: *www.lshtm.ac.uk/study/tuitionfees*.

Fee status

Students are classified as either 'Home/EU' or 'Overseas' for tuition fee purposes. A different fee is levied for each category. An assessment of the appropriate category is made under the Education (Fees and Awards) Regulations 2007 and subsequent amendments. Generally, Home/EU fees apply to students who:

- are EU nationals, are family members of EU nationals, or have settled status in the UK;

AND

- have been ordinarily resident within the EEA or Switzerland for the three years immediately before the start of their course.

A number of exclusions and additions apply; applicants requiring further information on tuition fee status assessment should refer to the UKCISA website (*www.ukcisa.org.uk*).

An assessment of fee status will be made for each applicant on the receipt of their application form based on the information provided. Applicants should ensure that they include full information on their places of residence for the three year period before the start of the course as well as their immigration status.

MSc summer projects

Students undertaking projects overseas will need to find up to £1,500 in addition to cover costs involved. It is not compulsory to undertake MSc projects overseas.

Research students

MPhil/PhD students are required to be registered for a minimum of two years although it is expected that they will take at least three years to complete a research degree. The minimum period of registration for full-time DrPH students is 3 years. The minimum period of registration for part-time DrPH students is 4 years. All Research students must spend at least nine months of their registration at the School. Any period away from the School must be agreed with supervisors. DrPH students are normally required to spend at least the first six months of their registration at the School to complete the taught course element of their degree. Students who are planning to do project fieldwork overseas should be aware that funding for these costs is not covered through tuition fees and must be raised separately. Depending on the nature of the project, these costs could include international travel, local travel, accommodation and costs of data collection (for example, household surveys, translator, etc.). For students supported by a scholarship, this may include limited funds for fieldwork, but prospective students should confirm this with the funding body. Other students may need to secure funding through project grants submitted to international or national funding bodies whose deadlines vary and the time to final decision may be considerable. These factors should be taken into account when proposing a research topic.

Please note that the research degree tuition fees shown are for one year only. Tuition fees will be charged for each year of degree registration, and tuition fees are subject to an increase each year.

Part-time and split-study students

The tuition fees for part-time and split-study students are for each year of study. Please note that fees are subject to an increase each year. Students attend the field trip in their first year and pay the relevant field trip fee. They are not expected to attend the field trip in the second year and as a result do not pay the field trip fee in the second year.

Expenses

All students are required to have sufficient funds to cover tuition fees, project costs and maintenance expenses for the duration of their studies before starting their course of study. It is expected that single students who budget carefully and efficiently should be able to live modestly on between £12,500 and £16,000 for a calendar year. Tuition fees for the course and any travel to and from the United Kingdom should be added to this sum. Because of the intensive nature of the School's courses, it is unlikely that full-time students will be able to undertake employment while studying at the School. Students should not plan their budget on the basis that they will receive employment income while studying.

Financial guarantees

The School is not able to provide financial assistance to any student whose funds prove to be inadequate at any stage during their course. Students offered admission will be provided with a Financial Declaration form, which they will be required to sign confirming their understanding of this situation and that they will have sufficient financial support for the duration of their studies.

Research studies

FACULTY		HOME		OVERSEAS	
		Full-time	Part-time	Full-time	Part-time
Epidemiology and Population Health	MPhil/PhD/DrPH	£4,600	£2,300	£13,750	£6,875
Infectious and Tropical Diseases	MPhil/PhD Lab-based	£4,600	£2,300	£16,700	£8,350
	MPhil/PhD Non-lab-based	£4,600	£2,300	£13,750	£6,875
	DrPH	£4,600	£2,300	£13,750	£6,875
Public Health and Policy	MPhil/PhD/DrPH	£4,600	£2,300	£13,750	£6,875

Continuing Professional Development – Distance Learning Modules

10 Credit modules	£1,140
15 Credit modules	£1,712

Continuing Professional Development – London-based Modules

Module Term 1	£18.70*
Module Term 2 & 3	£1,870

* per learning hour subject to a minimum of £1,870

Distance learning students may take up to two in-house modules as part of their MSc. Students who have already paid the entire fee will be charged an additional £750 per module. Students who pay per module will be charged £1,415 per module.

All the fees shown are for 2014/15.

Funding Your Studies

School scholarships

The School offers a number of scholarships each year, alongside some funded by the Medical Research Council, Economic & Social Research Council and the Wellcome Trust. As competition is very high for these awards, we recommend that applicants searching for funding apply to the School as early as possible; (applications for study are considered from November each year for the coming academic session. You should also investigate funding opportunities offered by organisations other than the School (e.g. Chevening Scholarships, Joint Japan/World Bank Graduate Scholarship Programme, Fulbright Commission, charities, aid organisations, your employer, etc.) As a general rule it is advisable that, in the first instance, you should contact your own Ministry of Education or Education Department, which will have details of most schemes and which will be able to advise you of your own government's conditions for studying abroad. For non-UK applicants, the British Council's website is a very useful resource for funding options. Courses run by the School are not eligible for Local Education Authority awards and students are advised to seek alternative sources of financial support as early as possible.

Up-to-date information on scholarships offered by the School, along with resources to help applicants find funding from other sources, is available on the School's website at: *www.lshtm.ac.uk/study/funding*.

Applicants to the School may also be eligible to apply for the following loans:

Professional and Career Development Loans (CDL)

Professional and Career Development Loans (CDL) are bank loans to pay for courses and training that help with your career or help improve your employability. Generally, the loan can be used to cover up to 80 percent of your course fees plus up to 100 percent of any related expenses. Full details of the scheme and application forms are available from any of the participating banks. Information can also be found via the National Careers service on 0800 100 900 and at *www.gov.uk/career-development-loans*. You should apply for a CDL at least 3 months before your course starts to give the bank enough time to process your application. Please note that applications for CDLs requiring certification must be submitted to Registry for certification in good time. Our learning provider number is 11169.

US loans

The School is a registered institution for processing and receiving US Federal Direct Loans (Unsubsidised and Graduate PLUS).

The Federal Direct Loans are operated by the United States Government and offer United States citizens affordable loans to cover up to the total cost of study (tuition fees and living costs). The School's institution code for US Federal Loans is G22100. To be eligible for a United States Government loan, you must be enrolled at least part time on a London-based MSc or research degree at the School. Further details on Direct Loans are available on the School's website: *www.lshtm.ac.uk/study/funding*.

Canadian loans

The School is listed as a Designated Educational Institution by CanLearn. This allows eligible students to receive Canadian Government loans. In Canada, the federal and provincial governments jointly administer student financial assistance through the Canada Student Loans Programme. On your loan Application Form, you will be required to quote the School's institution code – this is PUFH. Further details are available at: *www.canlearn.ca*.

The School offers a number of scholarships each year, and some funded by the Medical Research Council, Economic & Social Research Council or the Wellcome Trust.

Useful websites

In addition to the School's funding pages, students should also consider looking at the following websites which offer up-to-date lists of awards and scholarships:

The Council for International Education: *www.ukcisa.org.uk*

Research Councils UK: *www.rcuk.ac.uk/research*

RDinfo: *www.rdinfo.org.uk*

Education UK: *www.educationuk.org*

The International Federation of University Women: *www.ifuw.org/fellowships*

Directory of Grants & Fellowships in the Global Health Sciences: *www.fic.nih.gov/funding*

Visas

Some students will need to obtain a visa before they come to study in the UK. General visa advice can be found on the Home Office website at: *www.gov.uk.*

Further information about applying for a Tier 4 Student visa can be found on the School's website: *www.lshtm.ac.uk/study/newstudents/internationalstudents/immigration/index.html*. Furthermore, the School is authorised by the Home Office to sponsor student visas under Tier 4, and is happy to respond to any queries about visa requirements.

Overseas students will not usually be able to obtain a visa which allows them to complete the master's over two years (part-time) as the requirements for a student visa stipulate that students on a degree course must be studying full-time. This applies to students applying for visas in their home country (via their British Embassy or High Commission), as well as to students seeking to extend their visa within the UK. Such applicants are advised to consider full-time or the split-study option. Although applying for a visa is fairly straightforward, it remains one of the biggest sources of questions and concerns for our applicants. We advise you to:

- Read the visa rules carefully on the Home Office website at: *www.gov.uk*;
- Read an explanation of the rules on the School's website;
- Contact the Registry if you have any questions;
- Ensure that you meet the requirements for obtaining a visa, such as confirmation of your English competency and evidence of financial support to cover tuition fees and maintenance costs for living in London;
- Apply for your visa as early as you can.

Further information

Information from the British Council on studying and living in the UK can be found at: *www.educationuk.org/uk/Home*.

UKCISA have a wealth of information on their website, at: *www.ukcisa.org.uk/student/index*

Services & Support

Accommodation

There are many options for accommodation and the School is happy to advise students on the various possibilities. Some students can be accommodated in the University Intercollegiate Halls of Residence and there are various other student halls of residences throughout London offering student accommodation. Applicants also have access to the University of London Housing Services which offers a wide range of support to students looking for accommodation in the private sector. Further information on accommodation is available on the New Students section of the School website.

Careers Service

The School Careers Service actively engages with employers and alumni to drive its service delivery. School graduates go on to work in a range of capacities in NGOs, ministries of health, health services in the UK and overseas, academia, charities and private industry. Careers services reflect the varying needs of students at the School, from those with established careers who wish to change direction, to those who have come straight from their first degree and do not know where to start. The Careers Service hosts workshops and webinars to support job-seeking skills such as writing CVs, application forms, interviews, networking and career planning. Resources held online, on the School's dedicated 'Careers Service' Moodle course, and within the careers office, inform students of the broad range of options open to them after they graduate. Students gain regular exposure to employers through informal sessions with alumni, alongside careers fairs, panel discussions, and presentations by key relevant organisations. Career planning with our professional careers consultants can help students to tackle their next career transition. LSHTM Careers JobOnline and Alert internet vacancy system matches students to specific vacancies. Lifelong professional networking is facilitated by the diversity of student and alumni backgrounds, from over 180 countries.

Disability

The School welcomes applications from students with disabilities and provides support to students during their course of study. The School will take all reasonable steps to ensure that the application procedure, courses and examinations are organised and delivered to give the best opportunity for full participation by all students. Students who need to make their application in an alternative format should contact Registry. Applicants with a disability (including long-term medical conditions and dyslexia) can contact the student adviser to discuss their needs and any support required. The student adviser is also available to provide confidential advice and support during the academic year.

Specific learning difficulties including dyslexia

Students are encouraged to disclose any specific learning difficulty, including dyslexia, dyspraxia, attention deficit disorder or attention deficit/hyperactivity disorder at the time of application, although there is no deadline to declare. Declaring a specific learning difficulty at an early stage can help to ensure that appropriate support is put in place throughout the course. Students requiring access to support will need to submit a diagnostic assessment carried out by an educational psychologist (or approved equivalent).

English language support

Students will need to show that they have a minimum standard of proficiency in English before they enrol at the School. Further details can be found on page 112 of this prospectus. Students who feel that their studies would benefit from additional language support can attend weekly academic English language classes provided by the School (after registration). Prior to the start of the academic year, applicants can also enrol on the Pre-sessional English for Academic Purposes at Birkbeck College which is located close to the School. Further information is on the New Students section of the website.

Health care

Most students studying a full-time course for 6 months or longer will be eligible for free healthcare under the UK's National Health Service. We encourage all students to register with a local health centre at the beginning of their studies and students can find out more at the International Students Welcome event or from the student adviser. Further information about Healthcare in the UK can be found on the New Students section of the School website.

International Students Welcome

Shortly before the start of the academic year, the School hosts a two day International Students Welcome event. The aim of the event is to introduce students to the school, to London and to one another. Topics covered include how to open a bank account, transport in London and tips from former students on how to make the most of your time here. All students including UK students are warmly invited to join.

Mental health

The School offers a range of support to students with difficulties affecting their emotional well-being. Some students know they have a condition before coming to the School, or can experience mental health difficulties at some point during their studies. Students are encouraged to contact the student adviser at an early stage and to disclose any condition on the application form, whether it is a formally diagnosed condition, or other form of mental health difficulty such as anxiety or depression. This ensures that students' needs are understood and that they are supported appropriately throughout their studies. The School also has a Counselling Service which provides confidential support to students.

Student counselling service

The Counselling Service provides an opportunity to discuss any difficulties that are affecting your emotional well-being. This might be following a difficult event, such as a bereavement, but many people also seek counselling due to feeling down or depressed without knowing exactly why. A counsellor will not try and solve your problems for you, but will listen to you in an open and non-judgmental way, giving you a chance to understand your feelings, and how they affect your life. The School has a trained counsellor, who is available to see students for a one-off meeting, or for more regular sessions.

Student advice

The School has a student adviser, who offers impartial and confidential advice on a range of issues including accommodation, financial concerns, immigration, childcare, disability and personal matters. Where appropriate, students are referred to external specialist bodies who can provide further help.

Students with partners and children

Students with partners and children may wish to bring their family with them to London. The School can advise on matters such as schooling, childcare and accommodation. Students are advised to find suitable accommodation before travelling with their family to London.

The student community at the School

The Student Representative Council provides a focus for student opinion and identity with the School, through representation on committees and by acting as a link between staff and students. In addition to this, the Student Representative Council organises School-wide social and sporting events.

Past activities have included a summer barbecue, an International Fair and a charity jog in Regent's Park. All students are affiliate members of the Student Representative Council, and each MSc course and Research faculty has representatives who act as a focus and channel for student opinion.

Student Central

The School is situated in Bloomsbury, the heart of the academic community in London. Student Central is situated a few minutes' walk from the School, and offers a range of services to students, including refectories, bars, travel agent and shop, as well as a gym, swimming pool and other sporting facilities. As a student, you will be eligible for discounts in some shops, as well as on travel, cinema and theatre tickets.

Admissions: Frequently Asked Questions

Is there a deadline for applications?

MSc: There is no official deadline - courses close as they become full. We recommend that you submit applications as early as possible to avoid disappointment. If you wish to submit an application later in the year, you should look at the course pages on our website regularly to check that the course is still open. Courses can close after an application has been received but before an application has been considered.

PhD: There is no deadline as students can register at any point in the year. If you are applying for a studentship, the deadline will be published on the website with the advert.

Is there are a charge for applying?

Applications should be made using our online form which is free of charge. Paper application forms are available upon request and will normally incur an administration fee of £50.

If you have any questions regarding completing the online application form, please check our online application FAQs.

Can I apply for more than one MSc course?

You may apply for up to four choices, courses should be listed in order of preference. If you are made an offer for a course, your application will not be passed to a subsequent choice. Later preferences will only be considered if you are unsuccessful or decline an earlier choice.

When do courses start?

MSc courses have one intake in the September of each year. Research students may start their studies at anytime providing the Faculty approve the proposed start date.

How should I submit my references?

You will be asked to provide referee contact details when you complete your online application. Once you submit your application, an automated email will be sent to your referees with a form for them to complete.

Can I submit two *academic* references?

If you do not have any work experience (or do not think it is relevant), you may provide contact details of two academic referees instead of one academic and one employer.

I have an overseas qualification – how do I know if it is equivalent to a 2:2 honours degree?

Once you have submitted your application, the Admissions Team will assess your qualifications using the UK NARIC database. It is not possible to confirm the comparability of qualifications to prospective applicants, however if your qualification is not equivalent to a 2.2 honours degree your application will still be considered as a 'special case'. This means that if the Course Director wishes to make an offer it will need to be approved by the Dean of Studies.

Are my qualifications and/or work experience suitable?

If you are unsure whether your qualifications are suitable (for example if you have a degree in Geology and want to apply for Public Health), you should contact the Course Director. Their contact details can be found on the course pages of the website.

What supporting documents do I need to provide with my application?

You will be asked to upload some mandatory documents before you can submit your online application. These are:

1. A copy of the photograph page of your passport
2. CV
3. Transcripts of your previous studies (and official translations if applicable)
4. Research Proposal (if you are applying for research studies)

Other documents you should submit if available are:

1. English language test results
2. Evidence of funding
3. Evidence of your permanent residency (if applicable)

Your referees will be contacted directly.

London Eye on the River Thames. Photo courtesy Shirley Yeung

How do I apply for Distance Learning courses?

You will need to contact the University of London directly as they administer the admissions process for our distance learning courses.

I have a disability. Who can I discuss this with?

The School welcomes applications from students with disabilities and offers assistance to accommodate needs that may arise. If you have a disability, including long term health conditions and dyslexia, you can contact the Student Welfare Adviser for confidential advice.

Can I visit the School?

We hold an Open day in early February, where you will be able to visit the School. If you wish to visit the School or speak to a student, please contact study@lshtm.ac.uk and quote 'prospectus'.

Will I be interviewed?

Some Course Directors may wish to contact you to arrange an informal interview.

How long will it take for a decision on my application?

Providing we have your supporting documents you should have a decision within six to eight weeks for an MSc course and three months for research studies.

Do I need to send original documents?

If you are offered admission we will require original evidence of your qualifications, this should be either your original award certificate or original final transcript. If your certificate or transcript are not in English you must also provide original certified translations.

Original documents are required in line with Home Office requirements to minimise visa refusals. Original certificates and transcripts received by Registry will be kept and returned to you at registration unless otherwise requested. For overseas students requiring a Tier 4 student visa we will return the documents by courier.

Will you accept certified copies of certificates?

No. Original documents are required in line with Home Office requirements to minimise visa refusals.

When do you need these documents by?

You should send your documents to Registry as soon as possible before the start of your studies. You will not be able to register for study at the School until all the required documents have been received.

Students who are applying for a Tier 4 student visa will need to submit original documents well in advance of this date to ensure sufficient time is available to complete the visa process. Applicants requiring a CAS for a Tier 4 visa should send their financial evidence with the CAS request form (from 1 June for MSc courses and up to three months prior to the start date for research studies).

What is an 'unconditional offer'?

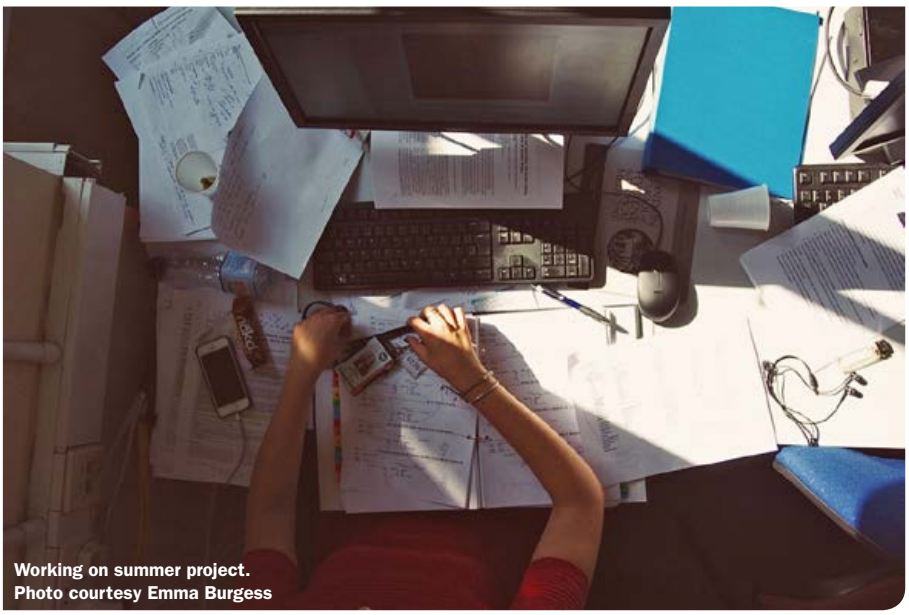
An unconditional offer means that you have met all the conditions of your offer. When we have received all the documents listed as conditions in your offer letter, such as English language test results or evidence of funding, your offer will be noted as unconditional. An offer must be unconditional before we can issue a CAS for a Tier 4 visa.

Will there be an introduction programme?

There will be an International Students Welcome in September. Dates are to be confirmed. All students, including those from the UK, are welcome to attend. Up-to-date details are available on our website.

For more frequently asked questions please visit: *www.lshtm.ac.uk/study/FAQ*

Apply online at www.lshtm.ac.uk/study/apply



Working on summer project. Photo courtesy Emma Burgess

Improving health worldwide

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Athena SWAN Bronze Award

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The School reserves the right to make alterations to the nature of courses for good academic or resource reasons or where necessary (for example as a result of limited enrolment numbers) to withdraw courses described in this prospectus. The School will give students who have accepted offers of places on the courses affected as much notice as is reasonably possible with such changes, and whenever possible will give them the opportunity of taking up a place on a course as similar as possible to the one withdrawn.