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MSc/PgDip Tropical Paediatrics 5
MSc/PgDip/PgCert Humanitarian Studies 6
MSc/PgDip/PgCert Humanitarian Programme Management 7
MSc/PgDip/PgCert Biology & Control of Parasites & Disease Vectors 8
MSc/PgDip/PgCert Molecular Biology of Parasites & Disease Vectors 10
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Modular Framework

PROFESSIONAL DIPLOMA PROGRAMMES

Diploma in Tropical Medicine & Hygiene (DTM&H) 14
Diploma in Humanitarian Assistance (DHA) 15
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PhD, MPhil and MD 19
BSc Tropical Disease Biology

PROFESSIONAL SHORT COURSES

We offer a range of short courses covering topics within our main teaching and research specialties. Some of our short courses are available with the option for earning academic credit or building up your CPD portfolio. Our short courses cover the following areas:

Clinical 20
Sexual & Reproductive Health 21
Maternal & Child Health 22
Planning, Management & Personal Development 27
Travel Medicine 29
Parasitology & Laboratory Based Courses 30
LSTM’s principal, inter-related functions are research, teaching and consultative activities. LSTM is extensively involved in national and international programmes to control tropical disease to develop effective healthcare systems. This commitment continues with our Centre for Tropical & Infectious Diseases (CTID), a state-of-the-art research centre for developing new drugs, vaccines and pesticides to combat some of the world’s deadliest diseases. LSTM has links with health ministries, universities and research institutions worldwide.

LSTM was founded in 1898 by Sir Alfred Lewis Jones, and is the oldest institution of its kind in the world. Its first Professor of Tropical Medicine, Sir Ronald Ross, was awarded the Nobel Prize in 1902 for discovering the mode of malaria transmission. Some 250 academics, research and support staff are employed in LSTM and each year around 500 students from more than 70 countries attend for tuition ranging from three-year PhD research programmes, one-year Masters degrees to two-day short courses.

Facilities

LSTM has well-equipped, modern teaching and research facilities in keeping with an institution at the cutting edge of tropical medicine. Major refurbishment of the main teaching areas was recently undertaken. Teaching methods and programme content are continuously evaluated and importance is attached to small group teaching wherever possible.

Computer & Library Facilities

LSTM has extensive computer facilities for students, with a dedicated computer lab as well as full wi-fi access for those with laptops and tablet computers. There are additional computing facilities in the main building and a new bioinformatics research area in the CTID. Students are provided with induction training in computer use if necessary. LSTM has a team of dedicated IT engineers to provide technical support. In addition, students have access to the computer facilities at the University of Liverpool.

The Donald Mason Library

The Donald Mason Library is a specialised facility designed to give help and support to all students. There has been a library at LSTM since its earliest years. Ronald Ross donated some of his own books to form the nucleus of the first library collection and the library takes its name from Donald Mason, a former Chairman of LSTM. Today, the library holds approximately 14,000 books and 50,000 bound volumes of periodicals. The core collection of the library represents LSTM’s highly specialised areas of study and research in parasitology, entomology, paediatrics and international health. The library’s archive and special collections attract scholars and researchers from all over the world. The library also provides access to an extensive range of e-journals.

Support for Students

Personal Tutors, Supervisors and Directors of Studies, Registry, Disability Support, Student Representatives and ability to feed into Staff Student Liaison Committee and Alumni Network.
POSTGRADUATE TAUGHT PROGRAMMES

We have 4 main types of courses:
1. PhD/MPhil (research programmes – usually 3 years)
2. Masters (MSc 1 year, PgDip 6 months, PgCert 3 months)
3. Professional Diplomas (range from 6 - 12 weeks)
4. Short Courses (range from 2 days – 2 weeks)

MASTERS

LSTM is a centre of excellence which provides high quality education and training. Our modular Masters programmes give students flexibility to tailor their studies to their individual needs and interests. Our Masters programmes cover 4 main areas; 1) Clinical; 2) Humanitarian; 3) Laboratory-based and 4) Public Health.

Application information including the application forms are all available on our website – www.lstmliverpool.ac.uk

Tropical and Infectious Diseases (MSc / PgDip / PgCert)

Programme Outline

The programme focuses on the diagnosis, management and control of the most prevalent diseases in developing countries, with particular reference to high burden diseases such as tuberculosis, HIV, malaria, respiratory infections and diarrhoea. Emphasis is also given to the development of research skills applicable to a wide range of problems in clinical and epidemiological settings. Participants complete a short project, which can include a 2 month period of applied research in an overseas location.

Programme Aims

The curriculum has been designed to take account of current national and international priorities and policies in the field of tropical and infectious diseases. It aims to:
• Develop participants' knowledge and comprehension of the preventive and curative management strategies that promote health and well-being in tropical countries
• Equip participants with the knowledge and skills needed to diagnose, manage and control tropical parasitic, bacterial, viral and fungal infections of children and adults in a variant of regional and resource settings
• Enable participants to comprehend and conduct health-related research
• Produce graduates who are experienced, committed, informed, proactive and effective professionals, capable of taking substantial and leading professional roles
• Deliver high quality teaching that is informed by current research
• Develop approaches to study that will enable graduates to continue to learn in the future.

“Having the opportunity to study at the Liverpool School of Tropical Medicine (LSTM) is perhaps the dream of every young physician who would like to become a researcher or instructor of neglected tropical diseases in her/his career. Thanks to LSTM, its vivid atmosphere, brilliant academics and supportive administrative staff, I was fortunate to realize this dream. Being actively involved in the process of developing and conducting different types of epidemiological studies, applying cutting-edge laboratory techniques and preparing manuscripts for peer-reviewed publications were part of my academic achievements. Most significantly however, I discovered how to manage and develop myself! Over my period of study at LSTM, I learnt how to deal with my limitations, scrutinize a problem and map out the solutions. Today, the research I am conducting and the lessons I teach my under/post graduate students are based on the wealth of knowledge and experience I obtained at LSTM. Yes, LSTM is the right place to study for people who love tropical medicine!”

Dr. Mohammadreza Naghipour
Entrance Requirements

• Medical degree plus at least two years' experience of professional work after qualification
• Other candidates who are suitably qualified by higher study or research may be considered
• Experience of working in a developing country is desirable
• TOEFL 88 iBT (With a minimum scores of 21 for Listening and Writing, 22 for Reading and 23 for Speaking); or
• IELTS with an overall band score of 6.5 (And a minimum of 5.5 in all learning components).

Programme Outline

The programme addresses both curative and preventive strategies relating to common disorders of children from both a clinical and community perspective. Emphasis is given to the development of research skills applicable to a wide range of child health-related problems in clinical and epidemiological settings. Participants complete a short project, which can include a 2 month period of applied research in an overseas location. An optional period of study in Liverpool may be chosen as an alternative to an overseas project.

Programme Aims

The curriculum has been designed to take account of current national and international priorities and policies in the field of tropical paediatrics. It aims to:
• Provide doctors with previous experience in paediatrics and child health with research skills relevant to child health-related problems in low income countries
• Develop participants' knowledge and comprehension of the preventive and curative management strategies that promote child health and well-being in tropical countries
• Equip participants with the knowledge and skills needed to diagnose and treat the common diseases of childhood in tropical countries and low resource settings
• Develop participants' understanding of the importance of maternal health and its consequences for child health and survival
• Enable participants to comprehend and conduct child health-related research
• Produce graduates who are experienced, committed, informed, proactive and effective professionals, capable of taking substantial and leading professional roles
• Deliver high quality teaching that is informed by current research
• Develop approaches to study that will enable graduates to continue to learn in the future.

Entrance Requirements

• Medical degree plus at least one year's experience of professional work in clinical paediatrics after qualification
• Other candidates who are suitably qualified by higher study or research may be considered
• Experience of working in a developing country is desirable
• TOEFL 88 iBT (With a minimum scores of 21 for Listening and Writing, 22 for Reading and 23 for Speaking); or
• IELTS with an overall band score of 6.5 (And a minimum of 5.5 in all learning components).

“A full scholarship is available, plus additional funding for a limited number of other students. Scholarship forms sent to students who submit application forms”
Programme Outline
The programme reviews historical and current policies and practice in humanitarian assistance, analyses the effect of war, natural disasters and the international economy on social dislocation, health and wellbeing, investigates the evidence base for current operational guidelines and explores novel approaches in responding to the challenges of today's humanitarian problems. Opportunities for in-depth study include regional and country case studies and a choice of modules addressing specific aspects of humanitarian interventions. In addition, the programme offers participants an opportunity to develop and undertake a research project, usually overseas, in an area of special interest indicated by client Non-Governmental Organisations (NGOs), International Organisations (IOs) or National Ministries.

Programme Aims
The curriculum has been designed to take account of current national and international priorities and policies in the field of Humanitarian Studies. It aims to:

- Provide experienced humanitarian workers with a deeper understanding of the political economy of humanitarian emergencies including the internally displaced, refugees and migrants: the historical context; regional and country case studies; the effect of war and natural disasters and the international economy on social dislocation, health and wellbeing
- Give participants the skills and knowledge needed to critically analyse the impact of humanitarian emergencies on health and well-being and to explore novel approaches in responding to the challenges of today's humanitarian problems
- Provide an interdisciplinary forum in which participants from a variety of professional backgrounds can critically review and debate key issues of mutual interest
- Give participants an opportunity to conduct an independent in-depth research study of a specialist aspect of humanitarian interventions in the field
- Produce graduates who are experienced, committed, informed, proactive and effective professionals, capable of taking substantial and leading professional roles
- Deliver high quality teaching that is informed by current research
- Develop approaches to study that will enable graduates to continue to learn in the future.

Entrance Requirements
- Open to graduates with at least six months' humanitarian assistance or developing countries' professional experience
- Non-graduates, who are suitably qualified by higher study or research, and applicants with considerable satisfactory work experience with humanitarian / development organisations and evidence of appropriate in-service training will also be considered
- 'Field' experience is desirable but not essential
- Available to Intercalating Medics
- TOEFL 88 iBT (With a minimum scores of 21 for Listening and Writing, 22 for Reading and 23 for Speaking); or
- IELTS with an overall band score of 6.5 (And a minimum of 5.5 in all learning components).

Career Opportunities –
Here’s an example of a student who graduated in 2007:
Jonathan Whittall, who hails from and lives in Johannesburg, is a humanitarian advisor for Médecins Sans Frontières (Doctors without Borders). He has worked on advocacy and analysis in Pakistan, Afghanistan, Iraq, Somalia and Ethiopia, among other countries, to which he travels regularly. He has been with the organisation since 2008, during which time he has been head of the programmes unit of MSF South Africa and head of mission in South Sudan and Pakistan. He was also a member of the emergency team that responded to the xenophobic violence in South Africa in 2008, the floods in Pakistan in 2011 and the military crackdown in Bahrain. Jonathan was also Head of Mission in Tripoli when Libya fell in 2011. He has written articles for academic journals on topics including Darfur and Palestine and has worked with humanitarian organisations in Darfur and Uganda. Jonathan has recently returned to LSTM to do his PhD.
Humanitarian Programme Management (MSc / PgDip / PgCert)

Programme Outline
The programme investigates current approaches to humanitarian programme management and identifies and develops models of good practice. Opportunities for in-depth study include regional and country case studies and a choice of modules addressing specific aspects of humanitarian interventions. In addition, the programme offers participants an opportunity to develop and undertake a research project, usually overseas, in an area of special interest indicated by client Non-Governmental Organisations (NGOs), International Organisations (IOs) or National Ministries.

Programme Aims
The curriculum has been designed to take account of current national and international priorities and policies in the field of humanitarian programme management. It aims to:

- Explain the political and economic determinants of health and well-being in humanitarian emergencies and critically review the evolution of and current debate on approaches to sustainable development
- Provide participants with the practical skills and confidence required to manage humanitarian and development programmes and organisations to maximise their efficiency, effectiveness and accountability
- Equip participants with the knowledge and skills needed to investigate and critically analyse current approaches to humanitarian programme management and identify and develop models of good practice
- Provide an interdisciplinary forum in which participants from a variety of professional backgrounds can critically review and debate key issues of mutual interest
- Give participants an opportunity to conduct an independent in-depth research study of a specialist aspect of humanitarian interventions in the field
- Produce graduates who are experienced, committed, informed, proactive and effective professionals, capable of taking substantial and leading professional roles
- Deliver high quality teaching that is informed by current research
- Develop approaches to study that will enable graduates to continue to learn in the future.

Entrance Requirements
- Open to graduates with at least twelve months’ humanitarian assistance or developing countries’ professional experience
- Non-graduates, who are suitably qualified by higher study or research, and applicants with considerable satisfactory work experience with humanitarian / development organisations and evidence of appropriate in-service training will also be considered
- 'Field' experience is desirable but not essential
- TOEFL 88 iBT (With a minimum scores of 21 for Listening and Writing, 22 for Reading and 23 for Speaking); or
- IELTS with an overall band score of 6.5 (And a minimum of 5.5 in all learning components).
Biology & Control of Parasites & Disease Vectors (MSc / PgDip / PgCert)

Programme Outline
This programme provides advanced contemporary training in parasitology and the study of disease vectors. The broad scope of the programme ranges from the biology, immunology, ecology and population biology of the organisms to public health and disease epidemiology. New optional modules have been added including Applied Bioinformatics and Key Topics on Snakebite. In addition to providing a solid foundation in parasite and vector biology, the programme provides practical experience of essential techniques, as well as significant theoretical and practical knowledge in all important and topical areas of the field, all taught within an active and exciting scientific environment. There is a significant practical component throughout the programme, and the laboratory work undertaken provides a wide range of techniques that would be highly relevant to a future research career.

Programme Aims
The curriculum has been designed to take account of current national and international priorities and policies in the field of biology and control of parasites and disease vectors. It aims to:

• Equip participants with the knowledge and practical skills needed to develop a career in research, training or control of parasitic and vector-borne diseases
• Provide knowledge and understanding of the biology and epidemiology of parasites and vectors and the diseases of medical importance that they cause
• Enable participants to understand current methods for preventing human disease and appreciate research developments in parasitology and vector biology that may lead to the development of novel control strategies
• Provide practical experience of a range of specialised technical and analytical skills relevant to the study of parasites and disease vectors
• Enable participants to conduct independent research in the laboratory and/or field
• Produce graduates who are experienced, committed, informed, proactive and effective professionals, capable of taking substantial and leading professional roles
• Deliver high quality teaching that is informed by current research
• Develop approaches to study that will enable graduates to continue to learn in the future.

Entrance Requirements
• Honours degree (2:2 or equivalent) in the biological sciences or a medical/veterinary degree
• Medical or Veterinary students who have completed four years of study and wish to intercalate
• Candidates with other qualifications may be accepted, particularly if they have substantial relevant work experience.

This course begins with a field trip to collect samples and get to know your fellow students. This normally lasts between 3-4 days.

Molecular Biology of Parasites & Disease Vectors (MSc / PgDip / PgCert)

Programme Outline
Molecular biology and genomics play an increasingly important and exciting role in research on medically important parasites and arthropods, and this award provides advanced training in this field. It provides an important foundation of knowledge of the basic biology of parasites and vectors, followed by specialised modules on the molecular and cellular biology and functional genomics of parasites and vectors, and culminating in a molecular research project on a topic chosen by the student. New optional modules have been added including Applied Bioinformatics and Key Topics on Snakebite. There is a significant practical component throughout the programme, and the laboratory work undertaken provides a wide range of techniques that would be highly relevant to a future research career.
Programme Aims

The curriculum has been designed to take account of current national and international priorities and policies in the field of molecular biology of parasites and disease vectors. It aims to:

- Equip participants with the knowledge and practical skills to develop a career in molecular research in parasitology or vector biology
- Provide knowledge and understanding of the molecular biology and epidemiology of parasites and vectors and the diseases of medical importance that they cause
- Enable participants to understand current methods for preventing human disease and appreciate research developments in parasitology and vector biology that may lead to the development of novel control strategies
- Provide practical experience of a range of specialised technical and analytical skills relevant to the study of the molecular biology of parasites and disease vectors
- Enable participants to conduct independent research in the laboratory and/or field
- Produce graduates who are experienced, committed, informed, proactive and effective professionals, capable of taking substantial and leading professional roles
- Deliver high quality teaching that is informed by current research
- Develop approaches to study that will enable graduates to continue to learn in the future.

Entrance Requirements

- Honours degree (2:2 or equivalent) in the biological sciences or a medical/veterinary degree
- Medical or Veterinary students who have completed four years of study and wish to intercalate
- Candidates with other qualifications may be accepted, particularly if they have substantial relevant work experience.
International Public Health (MSc / PgDip / PgCert)

4 Pathways:
- International Public Health
- International Public Health – Humanitarian Assistance
- International Public Health – Sexual & Reproductive Health
- International Public Health – Planning & Management

Programme Outline
This programme equips graduates to provide leadership and technical support in public health in middle and low income countries. It covers the whole breadth of public and global health, including key disciplinary skills in epidemiology and social science and applied topics such as disease control and programme management. Students can follow one of four pathways, which are distinguished by a defined combination of Required and Optional modules and by a dissertation project on a topic appropriate to the pathway. Students have the opportunity of spending a period of study outside the UK undertaking a client-based or student-initiated dissertation project, which enables them to practise their problem-solving skills and specialist knowledge in a real setting. The project is often commissioned by health ministries, non-governmental organisations or international health agencies in middle and low income countries.
Programme Aims

The curriculum has been designed to take account of current national and international priorities and policies in the field of International Public Health. All pathways aim to:

• Provide an understanding of a range of health policies and strategies in a variety of social, epidemiological, cultural, economic and political settings in middle- and low-income countries
• Enable students to comprehend and conduct public health-related research
• Produce graduates who are experienced, committed, informed, proactive and effective professionals, capable of taking substantial and leading professional roles
• Deliver high quality teaching that is informed by current research
• Develop approaches to study that will enable graduates to continue to learn in the future.

Pathway Aims

• **MSc International Public Health**
To understand current policies and practice in international public health and to explore approaches to developing policy and enhancing practice based upon sound, evidence-based principles. It aims to provide students with the knowledge and skills needed to be part of senior management teams that develop, implement, and evaluate policies and strategies to improve health in communities, countries and globally.

• **MSc International Public Health (Sexual and Reproductive Health, SRH)**
To gain a deeper understanding of international aspects of sexual and reproductive health (SRH) in middle and low income countries. It aims to provide students with knowledge and skills needed to enable them to contribute to the strengthening of health systems in support of SRH (including maternal & neonatal health, MNH); facilitate the implementation and scale-up of good practice; and raise awareness amongst politicians, professionals and the public of the need for more effective use of knowledge and tools to impact on SRH indicators.

• **MSc International Public Health (Planning and Management P&M)**
To gain an insight into the theories and methods of improving and managing health systems and human resources in middle and low income countries. It aims to provide students with the knowledge and skills needed to enable them to contribute positively to the effectiveness of health care organisations using quality and human resource management initiatives.

Entrance Requirements

• Open to graduates of health-related disciplines, including medicine, with at least two years professional experience working in the health system at district, regional or national level, in less developed countries
• Non-graduates, who are suitably qualified by higher study or research, and applicants with considerable satisfactory work experience and evidence of appropriate in-service training will also be considered.
### LSTM Prospectus - Modular Framework

#### R – Required Compulsory Module

#### O – Optional Module

<table>
<thead>
<tr>
<th>Weeks</th>
<th>Course Name</th>
<th>Credits</th>
<th>Semester 1</th>
<th>Semester 2 - Block 1</th>
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<tbody>
<tr>
<td>1-12</td>
<td>Research Methods in Public Health</td>
<td>30</td>
<td>R</td>
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<tr>
<td>1-12</td>
<td>Research Methods in Parasitology &amp; Vector Biology</td>
<td>30</td>
<td>R</td>
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<td>1-12</td>
<td>Political Economy in Humanitarian Emergencies</td>
<td>30</td>
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<td>1-12</td>
<td>Current Challenges in Clinical Tropical Medicine</td>
<td>30</td>
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<tr>
<td>1-12</td>
<td>Key Themes in Human Parasitology &amp; Vector Biology</td>
<td>30</td>
<td>R</td>
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<tr>
<td>1-12</td>
<td>Key Themes in International Public Health &amp; Health Policy</td>
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#### Semester 2 - Block 1

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<th>Weeks</th>
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<tr>
<td>15-16</td>
<td>International Child Health</td>
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<td>15-16</td>
<td>Organisation &amp; Management</td>
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<tr>
<td>15-16</td>
<td>Key concepts in Sexual &amp; Reproductive Health</td>
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<td>15-18</td>
<td>Molecular &amp; Cellular Biology of Parasites &amp; Vectors</td>
<td>20</td>
<td>R</td>
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<tr>
<td>15-18</td>
<td>Parasite Epidemiology &amp; Control</td>
<td>20</td>
<td>R</td>
<td>O</td>
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<tr>
<td>15-18</td>
<td>Complex Humanitarian Emergencies – Impact on Health &amp; Well-being</td>
<td>20</td>
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<td>17-18</td>
<td>Child Nutrition</td>
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<td>17-18</td>
<td>H R Planning &amp; Management</td>
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<td>O</td>
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<tr>
<td>17-18</td>
<td>Maternal &amp; Newborn Health</td>
<td>10</td>
<td>O</td>
<td>R</td>
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Reading week & Assessments for Block 1

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<table>
<thead>
<tr>
<th>Weeks</th>
<th>R – Required Compulsory Module</th>
<th>O - Optional Module</th>
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<tr>
<td>Semester 2 - Block 2</td>
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<tr>
<td>20-21</td>
<td>Practical Financial Management (10 credits)</td>
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<tr>
<td>20-21</td>
<td>Principles of Evidence Informed Policy &amp; Practice (10 credits)</td>
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<tr>
<td>20-23</td>
<td>Vector Population Biology &amp; Control (20 Credits)</td>
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<tr>
<td>20-23</td>
<td>Immunology of Parasitic Infections (20 credits)</td>
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<td>20-23</td>
<td>Global Climate Change &amp; Health (20 credits)</td>
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<tr>
<td>22-23</td>
<td>Quality Improvement in Maternal &amp; Newborn Health (10 credits)</td>
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<tr>
<td>22-23</td>
<td>Fundraising and Grant Proposal Writing (10 credits)</td>
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<tr>
<td>22-23</td>
<td>Development of a Disease Control Programme (10 credits)</td>
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<td><strong>Reading week &amp; Assessments for Block 2</strong></td>
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<tr>
<td>Semester 2 - Block 3</td>
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<tr>
<td>25-26</td>
<td>Management of Refugee &amp; Displaced Populations (10 credits)</td>
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<tr>
<td>25-26</td>
<td>Statistical Methods for Epidemiological and Clinical Research (10 credits)</td>
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<tr>
<td>25-26</td>
<td>Applied Bioinformatics (10 credits)</td>
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<td>25-26</td>
<td>Sexual Health &amp; Human Sexuality (10 credits)</td>
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<tr>
<td>27-28</td>
<td>Media, Policy &amp; Advocacy (10 credits)</td>
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<tr>
<td>27-28</td>
<td>Public Health in Humanitarian Emergencies (10 credits)</td>
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<tr>
<td>27-28</td>
<td>Technical Support in Humanitarian Emergencies (10 credits)</td>
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<tr>
<td>27-28</td>
<td>Statistical Methods for Epidemiological and Clinical Research (10 credits)</td>
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<tr>
<td>27-28</td>
<td>Clinical Neonatal Care (10 credits)</td>
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<tr>
<td>27-28</td>
<td>Key Topics in Snakebite: Biology, Epidemiology, Pathology &amp; Treatment (10 credits)</td>
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<tr>
<td></td>
<td><strong>Reading week &amp; Assessments for Block 3</strong></td>
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**Diploma in Tropical Medicine & Hygiene (DTM&H)**

Full Time – 3 months (2 intakes per year in September & February)

**Programme Outline**
This programme is particularly useful for physicians who have trained in medicine in a developed country but intend to practise in the tropics. It is also useful for physicians already practising in developing countries who require an update on infectious, parasitic and other health problems and for doctors in developed countries who need to diagnose and manage imported infections. It is recognised as fulfilling part of the requirements for the American Society of Tropical Medicine and Hygiene Certificate in Travel Medicine. You will cover 4 main components: 1) Clinical Tropical Medicine & Child Health; 2) Parasitology; 3) Vector Biology and 4) Public Health.

**Programme Aims**
Through participation in a highly intensive programme of formal lectures, practicals and seminars, students will be able to:

- Understand the importance of the social, cultural and economic setting of people and communities in the planning and implementation of health services and disease control.
- Diagnose and treat patients suffering from the major parasitic and communicable diseases of the tropics.
- Identify stages of parasites important in the diagnosis of tropical disease.
- Recognise the main genera of insect vectors of disease and understand their behaviour sufficiently to discuss control methods intelligently.
- Understand the principles of epidemiology and control as applied to a range of diseases highly prevalent in the tropics.
- Identify the health needs of a community and discuss ways of improving health at village and district level.

“I felt the course was well structured, fun and interactive. I would recommend it to anyone” (2012)

“One of the best experiences of my career and I will be recommending it to everyone I know! Thank you to everyone who made it such an amazing experience! (2012)”

“The broad overview of clinical tropical medicine and wider perspective of public health and epidemiology was invaluable in my later work.” (DTM&H Alumni Survey 2011)

**Entry qualification**
A recognised medical degree.

**Scholarships**
In accordance with our Mission Statement, LSTM particularly encourages attendance on the DTM&H by clinicians working in academic and research institutions in developing countries and offers a small number of scholarships to support such applicants. Scholarship applicants must have accepted a conditional offer of a place and show evidence of additional funding in place. Scholarships are awarded competitively on the basis of academic merit and will not exceed 50% of the fee.

“The broad overview of clinical tropical medicine and wider perspective of public health and epidemiology was invaluable in my later work.” (Alumni Survey 2011)
Diploma in Humanitarian Assistance (DHA)

Full Time – 6 weeks (1 intake per year)

Programme Outline
This is an intensive, multidisciplinary programme designed to encourage students from a variety of backgrounds and experiences to interact in a stimulating learning environment in which they will develop individual and team skills. The carefully constructed curriculum combining core and specialist modules enables students to explore the essential issues relevant to all humanitarian workers, whatever their professional background, and to select a specialist module which will provide them with a deeper understanding of an area of special interest.

Teaching methods include lectures, case studies, seminars, practical exercises and scenarios. Students are assessed as individuals and as members of a team.

Programme Objectives
- To provide humanitarian workers with the awareness, understanding and skills essential for effective action as individuals and as members of a team.
- To identify and promote standards of good practice in humanitarian responses.
- To encourage cooperation and dialogue between governmental, non-governmental, national and international agencies involved in humanitarian action.
- To examine strategies for early warning and prevention of humanitarian crises.
- To create a more effective synergy between emergency humanitarian interventions and programmes promoting sustainable development.

Student Entry Qualifications
University degree or equivalent professional qualification or experience.

Applications are welcome from persons working with governmental, international and non-governmental organisations, as well as other individuals preparing for, or currently engaged in, humanitarian work.

Care is taken in selection of students to ensure an appropriate mix of skills and experience consistent with the multidisciplinary nature of the course.

Structure and Content:

1. Core Module –
   The Humanitarian Arena

2. Core Module –
   Strategic Planning & Management of Displaced Populations

3. Core Module –
   Process Towards Stability & Sustainable Development

4. Specialist Options – please choose one pathway:
   - Health in Emergencies
   - Technical Support (Logistics)
   - Media, Policy & Advocacy in the Humanitarian Arena

5. Core Module – Synthesis & Assessments

NGO Forum

Many leading NGOs actively recruit graduates of the Liverpool School of Tropical Medicine. The NGO forum is a 'careers fair' that includes short presentations by NGOs followed by an 'open forum' session in which individual students meet with NGO representatives for more detailed discussion, including advice regarding employment opportunities and application procedures. The following NGOs regularly participate: Concern, Goal, IMC, Medair, Medecins du Monde, MSF, Merlin, Oxfam, SC(UK), VSO.
Diploma in Tropical Nursing (DTN)

Full Time – 3 weeks (8 weeks in total - 2 weeks pre-reading, 3 weeks full time in LSTM followed by a 3 week assessment period. Students only need to be in LSTM for 3 weeks, the remaining time can be taken whilst working around your other commitments).

Programme Introduction
This 3-week intensive programme is designed for nurses and midwives who intend to work in developing countries. The course will provide a wide knowledge base, incorporating laboratory work, clinical aspects of infectious diseases, child health, sexual health, neglected tropical diseases, non-communicable diseases as well as professional topics such as leading change, governance and ethics.

The programme aims to:
• Equip participants with knowledge and practical skills relevant to nursing in the tropics
• Produce graduates who are informed and effective professionals
• Facilitate high quality learning that is informed by up-to-date knowledge and current best practice
• Develop independent and reflective approaches to study that will enable graduates to continue to learn in the future.

Who Should Attend
This Diploma course is available to registered nurses and midwives.

Students will have a minimum of 2 years post qualification experience.

The programme is taught in English. Students whose first language is not English must provide proof of competency in English (IELTS 6.5 or TOEFL iBT 88 / paper-based 570).

Course Outline

WEEK 1
Day 1 Welcome Day and Course Introduction & Review of Formative Assessment
Day 2 Introduction to Global Health Issues
Day 3 Sexual & Reproductive Health
Day 4 Public Health & Primary Healthcare
Day 5 Parasites

WEEK 2
Day 6 Malaria and Introduction to Lab Diagnostics
Day 7 Common Laboratory Tests
Day 8 Humanitarian & Refugee Health – Nursing in Disasters
Day 9 Management, Managing Resources and Leading Change
Day 10 TB & HIV

WEEK 3
Day 11 Child Health, Immunisations & Nutrition
Day 12 Child Health, Integrated Management of Childhood Illness, Snakes Alive!
Day 13 Neglected Tropical Diseases
Day 14 Human Resources, Skin Diseases and Overseas Experiences, General Review
Day 15 Examination & Evaluation

“Thank you for a wonderful 3 weeks & for reminding me of all the reasons I came into nursing” (2012)
Diploma in Reproductive Health in Developing Countries (DRH)

Full Time – 12 weeks (1 intake per year in January)

This programme runs each year in partnership with the Royal College of Obstetricians and Gynaecologists (RCOG).

Course Objectives and Learning Outcomes
The Reproductive Health in Developing Countries course (DRH) is designed to help doctors, midwives and other health professionals working in the area of Sexual and Reproductive Health (or planning to do so), acquire knowledge and skills which will enable them to:

• Develop an awareness of the need to reduce reproductive mortality and morbidity through a multi-dimensional and team approach
• Increase their capabilities to plan, implement and evaluate relevant programmes and interventions in reproductive health
• Review a range of possible strategies that can be used to improve Sexual and Reproductive Health in resource poor countries and evaluation of these
• Understand and explain basic epidemiology, quantitative and qualitative research methods and apply the knowledge to critically analyse research papers and reports.

“After I finished my programme of Reproductive Health I went back to my country and I am really proud of LSTM because now I have started to benefit from the knowledge & skills which I acquired. I am now conducting different part-time jobs (consultancy) in maternal death audits; HPV vaccination and Family Planning. Yves Lucien Hakorimana (DRH 2011)”
Throughout the programme the aim will be for the participants to gain in-depth knowledge and understanding and sufficient confidence in new skills and ideas to be able to begin to develop and apply them in their own working environment and with colleagues in a developing country situation. The course will be run with an emphasis on discussion groups and full participation of students and with a less emphasis on didactic lecturing. It is therefore important for participants to be actively involved to benefit fully from the course.

Key themes of the course include: concepts of SRH and MNH, safe motherhood and strategies to improve MNH and reduce maternal, perinatal and neonatal mortality, including in particular key strategies as Skilled Attendance at Birth and Emergency Obstetric Care, The course also covers provision of MNH and RH services, community aspects of MNH, management of obstetric complications, obstetric fistula, female genital mutilation, neonatal health & health care, family planning programmes and contraception, prevention and management of STIs and HIV, adolescent SRH, gender and health, human rights in relation to SRH, prevention & management of cervical cancer, human sexuality and principles of sex and relationship education, sexual & gender-based violence, basic epidemiology & statistics, qualitative research methods, programme planning & management, quality improvement methods, as well as skills development in doing a computerised literature search, how to read and appraise a scientific paper and to write a dissertation.

Learning outcomes
By the end of the course students will be able to:
- Demonstrate in-depth knowledge of current global strategies to improve Sexual & Reproductive Health (SRH), including Maternal & Neonatal Health (MNH).
- Understand and articulate strategies for the prevention and control of STIs and challenges in implementation in low-income countries.
- Demonstrate in-depth understanding of the natural history and epidemiology of HIV infection and strategies to control HIV/AIDS, including principles of ARV treatment and approaches to counselling and testing for HIV.
- Provide evidence-based SRH and MNH services and monitor & evaluate such services.
- Provide evidence-based obstetric care during pregnancy, child birth and in the postnatal period, including treatment of obstetric complications.
- Initiate quality improvement activities for MNH care services.
- Organise and provide FP services and plan for interventions to increase coverage and utilisation of such services.
- Provide treatment of STIs using the syndromic management approach.
- Apply the concepts of gender and human rights to the provision of equitable SRH and MNH services.
- Appreciate, articulate and address the SRH needs of adolescents and organise and provide youth-friendly SRH services.
- Articulate the different forms of and strategies to control sexual & gender-based violence, including Female Genital Mutilation (FGM) and organise and provide health care to victims of sexual & gender-based violence.
- Conduct a computer-based literature search, critically review the literature and write a review on a SRH topic of choice.

Scholarships are available for this programme.

ENTRY REQUIREMENTS

Qualified health care providers, such as nurses, midwives, clinical officers, doctors, obstetricians, who are working in low and middle income countries or who are planning to do so. Applications from staff in Ministries of Health, freelance consultants and health advisors working in the field of SRH are also invited.

Applicants should have adequate proficiency in English (IELTS 6.5 / TOEFL paper based 570, or TOEFL iBT 88).
**PhD Research Opportunities**

A research degree involves a period of research study in an area appropriate to the needs of the particular student, followed by the submission of a thesis. An MPhil normally takes from one to two years and a PhD normally three years. Students are assigned a research supervisor who guides the development of the research programme. The monitoring of students’ progress and their supervision is carried out by Postgraduate Advisory Panels that are assigned individually to each student. There are opportunities for both laboratory and field-based research, depending on the disciplinary area selected.

PhD Studentships are available at certain times of year – please check the website for details.

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**Undergraduate**

**BSc in Tropical Disease Biology**

The BSc in Tropical Disease Biology is an Honours degree programme offered by the School of Biological Science, University of Liverpool, with the final Honours year run and based in LSTM. The degree programme is aimed at students who are interested in a range of aspects of the biology of infectious disease (from organism life cycles, to epidemiology and molecular biology) in the context of global disease issues, with an emphasis on the tropics. The course includes a practical skills module in Tropical Medicine in Year 2 with final year modules in Parasitic Protozoa and Helminths, Parasitology including Immunology and Molecular Biology, Vector Biology, Chemotherapy and Topics in Global Health and a Research Project.

Graduates with a degree in Tropical Disease Biology are well qualified to enter a wide range of employment opportunities with rewarding careers in biotechnology, Pharmaceuticals and other key areas. For those committed to a career as a research scientist, further study for a higher degree in science or subjects allied to medicine is the normal route and several past students have continued their training by enrolling onto Masters and PhD programmes at the LSTM.

**Intercalating Medics**

LSTM accepts intercalating medics on the following programmes:

- **BSc Tropical Disease Biology (Honours Year)**
- **MSc Biology and Control of Parasites & Disease Vectors**
- **MSc Molecular Biology of Parasites & Disease Vectors**
- **MSc Humanitarian Studies**

www.lstmliverpool.ac.uk
CLINICAL COURSES

Essentials of TB Epidemiology, Clinical Management & Control

DURATION – 2 DAYS
ACCREDITED – ROYAL COLLEGE OF PHYSICIANS (12 CPD)

This 2 day course is ideal for people who are looking for a rapid update on tuberculosis and tuberculosis control. The course is part of the 3 month course for the Diploma in Tropical Medicine & Hygiene so the orientation is towards practice in developing countries. However the delivery is updated every 6 months in line with new developments in approaches, strategies, tests, and treatments for TB. The content provides a refresher course in the core principles of TB epidemiology and control.

Learning Objectives - At the end of this course, participants should:
• Have reviewed the core principles of TB Epidemiology, Clinical Management and Control
• Be able to evaluate the relevance of new approaches and tools to their current or intended day-to-day practice in clinical or public health aspects of TB
• Be able to identify areas within their own current or intended practice that could be updated in line with current international guidelines.
• Understand future possibilities for research, clinical and public health management of TB.
• Understand current challenges in TB epidemiology, Clinical Management and Control, especially in relation to HIV-AIDS and Multi- and Extremely- Drug Resistant TB.

HIV Epidemiology, Clinical Case Management & Strategies in Resource Poor Settings

DURATION – 3 DAYS
ACCREDITED – ROYAL COLLEGE OF PHYSICIANS (18 CPD)

This 3-day course is open to all interested health professionals who are looking for a rapid update on HIV and STI epidemiology, treatment and control. The content provides a refresher course in the core principles of HIV epidemiology and control as well as updates on clinical syndromes and their management, the use of antiretrovirals and programming for HIV prevention and treatment. The delivery is updated every 6 months in line with new developments in approaches, strategies, tests, and treatments for HIV.

Learning Objectives - By the end of the module participants will:
1. Have a good understanding of the current epidemiology of HIV and STI;
2. Understand the principles of prevention and control of HIV and STI, including best practice Counselling and Testing procedures and Antiretroviral Treatment strategies;
3. Be able to diagnose and treat patients suffering from the common STI;
4. Be able to diagnose and treat patients suffering from the common manifestations of HIV disease;
5. Have a good understanding of current emerging issues in HIV and STI treatment and control in the developing world.

Statistical Methods of Epidemiological & Clinical Research

DURATION – 2 WEEKS

This course aims to provide students with knowledge and critical understanding of standard quantitative statistical methods used to evaluate epidemiological studies and clinical trials involving humans. It develops the ability of students to design, critically analyse, interpret and report the findings of a research project in a health related topic, primarily using methodologies appropriate for health surveys and observational cohort/case-control studies, but will also examine methodologies relevant for (randomised controlled) clinical trials.

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**Learning Outcomes**

Upon successful completion of the course, you will be able to:

1. Identify appropriate experimental design methodologies for carrying out health surveys, observational epidemiological studies (primarily cohort and case-control design studies) and interventional clinical trials involving human participants
2. Identify and execute appropriate statistical methods for summarising data collected in health surveys, epidemiological studies and interventional clinical trials, using both conventional significance testing approaches and more contemporary effect size/confidence intervals concepts
3. Critically evaluate and interpret the statistical analyses of data from health surveys, epidemiological studies and interventional clinical trials
4. Summarise the results of statistical analyses in a report format suitable for a non-mathematical readership

**SEXUAL & REPRODUCTIVE HEALTH**

**Key Concepts in Sexual & Reproductive Health**

DURATION – 2 WEEKS

This course aims to provide you with knowledge and critical understanding of the concepts of Sexual and Reproductive Health (SRH) and SRH services and the key issues in International SRH, including those that arose at the International Conference on Population and Development (ICPD) in Cairo. It explores SRH in the contexts of human rights, equity, gender equality and health systems and policies, and discusses the link between SRH and the Millennium Development Goals (MDGs).

**Learning Outcomes**

Upon successful completion of the module, students will be able to:

1. Demonstrate a detailed and systematic knowledge and understanding of the concept of SRH and its components, identify key players and issues in international SRH and discuss the critical points in the plan of action of the ICPD
2. Analyse critically how individual and collective human behaviour affect SRH and explain how behavioural theories are used to design behavioural change communication components of SRH programmes
3. Analyse critically how national health policy and health systems influence whether or not key SRH issues are addressed
4. Design and implement a needs assessment and M & E framework for SRH services
5. Formulate a strategic plan for a SRH programme
6. Apply the rights-based approach in SRH programming

**Sexual Health & Human Sexuality**

DURATION – 2 WEEKS

This course aims to provide students with knowledge and critical understanding of the concepts of human sexuality and sexual health, including sexual dysfunction and principles of and approaches to sexuality and relationship education. It also covers family planning services and programmes, epidemiology and control of STIs/HIV and sexual & gender-based violence.

**Learning Outcomes**

Upon successful completion of the module, students will be able to:

1. Demonstrate a detailed and systematic knowledge and understanding of the concepts of human sexuality, sexual health, sexual dysfunction and approaches to sexuality and relationships education
2. Explain the benefits of FP and its role in SRH programmes
3. Design, monitor and critically evaluate FP programmes and services
4. Discuss the effectiveness and limitations of different prevention and control strategies for STIs, including HIV, in resource-poor countries
5. Design, monitor and critically evaluate a programme for the control of STIs and HIV infection
6. Demonstrate a critical awareness of the principles, advantages and limitations of the syndromic approach to the management of STIs
7. Explain the various aspects, manifestations and consequences of sexual and gender-based violence and discuss how to address these issues in SRH policies and programmes

MATERNAL & CHILD HEALTH

**Life Saving Skills & Essential Obstetric Care (LSS-EOC)**

DURATION – 3 DAYS

At least 80% of all maternal deaths result from five complications that are well understood and can be readily treated: (1) haemorrhage, (2) sepsis, (3) eclampsia, (4) complications of abortion and (5) obstructed labour. We know how to prevent these deaths – there are existing effective medical and surgical interventions that are relatively inexpensive. The course is designed to cover the five major causes of maternal death (haemorrhage, sepsis, eclampsia, complications of obstructed labour and abortion) as well as Newborn Resuscitation and Early Newborn Care. It focuses on the signal functions of CEOC (9) and BEOC (7).

To reduce maternal mortality it is important that all women have access to maternal health care services, particularly skilled attendance at birth and timely access to Essential (or Emergency) Obstetric Care (EOC) when an obstetric complication occurs. Two levels of EOC can be distinguished BEOC and CEOC:

**Basic Essential Obstetric Care (BEOC) – 7 signal functions:**
1. Parenteral Antibiotics
2. Parenteral oxytocics
3. Parenteral anti-convulsants
5. Removal of retained products of conception by Manual Vacuum Aspiration
6. Assisted vaginal delivery (vacuum extraction)
7. Resuscitation of the newborn (using bag and mask)

**Comprehensive Essential Obstetric Care (CEOC) – 9 signal functions:**
All 7 BEOC functions (above)
8. Caesarean Section
9. Blood Transfusion

**International Child Health**

DURATION – 2 WEEKS

This module aims to provide students with knowledge and critical understanding of the key issues in international child health. It aims to enable students to adopt a reasoned and evidence-based approach to evaluating important community health programmes aimed at children, and to diagnose and manage selected community child health problems.

**Learning Outcomes**
Upon successful completion of the module, students will be able to:
1. Discuss the global burden of disease in children
2. Explain the main determinants of child health and child mortality in the tropics in a variety of regional and resource settings
3. Evaluate critically key international programmes to address mortality in children
4. Critically apply their knowledge and understanding to the clinical diagnosis, complications, management and control of a community child health problem

**Child Nutrition**

DURATION – 2 WEEKS

This course aims to provide you with knowledge and critical understanding of nutrition as central to clinical and preventive
paediatrics and child health. An evidence-based approach is taken to explain the main priorities in applied nutrition relevant to low resource settings in the context of both hospital and community settings.

**Learning Outcomes**
Upon successful completion of the module, students will be able to:

1. Discuss the normal phases of growth in children and recognise the importance of nutrition at key stages
2. Use standard growth charts, computer software and biochemical indices to measure children and assess their nutritional status
3. Define and use appropriately key terms (e.g. stunting, wasting, growth failure)
4. Discuss the common nutritional disorders affecting children in the tropics
5. Analyse causative factors and preventative strategies relevant to both medical and sociological factors in chosen health situations
6. Design and implement appropriate strategies for the management of acute malnutrition in the home, in the community and in hospital

**Maternal & Newborn Health**

DURATION – 2 WEEKS

This course aims to provide students with knowledge and critical understanding of the concepts and key issues related to Maternal and Neonatal Health (MNH) and Safe Motherhood. Students learn how to develop a strategic plan for the reduction of maternal and neonatal mortality, and how to plan, organise, monitor & evaluate evidence-based MNH programmes and services, taking into consideration the importance of effective functioning health systems.

**Learning Outcomes**
Upon successful completion of the module, students will be able to:

1. Demonstrate a detailed and critical understanding of the concepts, strategies and historical development of the Safe Motherhood Initiative
2. Discuss critically the causes and determinants of maternal and neonatal mortality and morbidity and the global strategy for improvement of MNH from UN agencies
3. Plan evidence-based programmes and services for the reduction of maternal and neonatal mortality and morbidity and improvement of MNH
4. Critically evaluate MNH programmes and services and explain the limitations of methods for measuring maternal mortality
5. Introduce and use quality improvement methods for MNH services, notably setting of standards, carrying out maternal death reviews and criteria-based clinical audit.
Clinical Neonatal Care

DURATION – 2 WEEKS

This course aims to provide students with knowledge and critical understanding of neonatal diseases in the tropics. It uses a problem-based approach to enable students to adopt an evidence-based and reasoned approach to the diagnosis, management and control of neonatal diseases in a variety of regional and resource settings.

Learning Outcomes
Upon successful completion of the module, students will be able to:
1. Demonstrate a detailed and systematic understanding of neonatal epidemiology, pathogenesis, clinical presentation, complications, differential diagnosis and investigation of important neonatal diseases in the tropics
2. Critically apply this understanding to the clinical diagnosis, management and control of such diseases.

Quality Improvements in Maternal & Newborn Health

DURATION – 2 WEEKS

This course aims to provide students with knowledge and critical understanding of the concepts of quality of care in maternal and newborn health. Students will learn the importance of improving the quality of MNH care and services, how to assess quality, reflect critically on their own area of practice and role in quality improvement and appreciate how research and audit differ and how they are related.

Learning Outcomes
Upon successful completion of the module, students will be able to:
1. Explain the importance of quality improvement in MNH
2. Identify specific developments within their own area of practice and consider how the interventions were evaluated.
   • Demonstrate that they have the skills, knowledge and understanding to introduce and use quality improvement methods for MNH services, notably: setting of standards; carrying out maternal death reviews; perinatal death reviews; criteria-based clinical audits.

PUBLIC HEALTH & HUMANITARIAN

Complex Humanitarian Emergencies

DURATION – 4 WEEKS

This course aims to provide students with knowledge and critical understanding of current key themes and debates in the social sciences concerning humanitarian emergencies including fragile and collapsed states and the politics of intervention; nation building efforts, learning from the mistakes; the anthropology of conflict and complex emergencies; child soldiers and the challenges of their reintegration into society; humanitarian assistance in the 21st century - vulnerability and livelihoods. The course will respond to the specific interests that students wish to pursue.

Learning Outcomes
Upon successful completion of the module, students will be able to:
1. Demonstrate a systematic understanding of knowledge and a critical awareness of current themes and debates concerning complex humanitarian emergencies
2. Evaluate and critically analyse an array of source material
3. Analyse in depth one particular dimension of complex emergencies
4. Demonstrate competence in the oral and written presentation of defined topics and texts.
Global Climate Change and Health

DURATION – 4 WEEKS

This course aims to provide you with knowledge and critical understanding of the effects of global climate change on human health and to investigate options for mitigation and adaptation.

Learning Outcomes
Upon successful completion, you will be able to:

1. Identify and critically analyse current and potential threats to human lives and livelihoods as a result of global climate change
2. Discuss the complex social, political, economic and environmental determinants of vulnerability to the effects of global climate change
3. Explain how global climate change is likely to affect the nature, frequency and magnitude of humanitarian emergencies
4. Critically analyse strategies for adaptation to the effects of global climate change and propose a variety of adaptation strategies that are designed to ensure sustainable livelihoods and the development potential of a range of vulnerable populations
5. Investigate policies and instruments that are available to governments to create incentives for mitigation action and propose strategies for mitigation action appropriate to key stakeholders.
6. Work effectively as part of a multidisciplinary team, engaging confidently in academic and professional communication and demonstrating the exercise of initiative and personal responsibility.
7. Evaluate critically and produce an effective synthesis of current research and advanced scholarship at the forefront of the discipline.

Fundraising and How to Write a Grant Proposal

DURATION – 2 WEEKS

This 2-week programme aims to provide you with knowledge, critical understanding and key practical skills to raise funds for humanitarian and development programmes from donor agencies, the corporate sector and the general public. Topics covered include financing options and funding trends in the humanitarian sector; institutional donor funding - key players and their funding priorities; the ethics of fundraising; the fundraising strategy; Steps to Success; researching donors; corporate fundraising; the project log-frame; and proposal writing and costing.

Learning Outcomes
Upon successful completion of the module, students will be able to:

- Describe and critically assess the current funding climate and priorities in humanitarian programmes
- Undertake focussed donor research for fundraising for humanitarian projects
- Fulfil a resources audit and design a fundraising strategy for a small NGO
- Outline the challenges and opportunities presented by fundraising from the corporate sector and institutional donors
- Design a fundraising event to attract support from the general public
- Prepare a fundraising proposal and supporting budget for a major donor agency.

Management of Refugee & Displaced Populations

DURATION – 2 WEEKS

This course aims to provide students with the knowledge, skills and critical understanding needed to adopt an evidence-based and reasoned approach to strategic planning, needs assessment and management of refugee and displaced populations across the spectrum from emergency relief to sustainable development.
Learning Outcomes
Upon successful completion, you will be able to:
1. Critically analyse strategies for managing and co-ordinating refugees / IDPs in a variety of settings
2. Use appropriate evidence-based approaches for mobilising & managing human and financial resources
3. Describe security threats and make recommendations for self-care of humanitarian actors
4. Critically analyse the emergency vs development divide.

Development of a Disease Control Programme

DURATION – 2 WEEKS

This course aims to provide you with knowledge and critical understanding of the principles and processes of designing and monitoring a disease control programme for a low or middle-income country. In most low and middle-income countries, communicable diseases (e.g. TB, malaria, HIV/AIDS) continue to be a major cause of human suffering and preventable death and these countries are also experiencing an increasing burden of non-communicable diseases (e.g. diarrhoeal disease). Interventions to control those diseases are well described and proven to be effective, but they are often not widely applied due to lack of resources, political commitment or health systems issues. You will learn how to take account of changing epidemiological and demographic profiles, become familiar with the latest recommended interventions to control the diseases in question, and consider effective mechanisms to implement the interventions. You will also cover the 1.5 days of NAPT (Needs Assessment & Planning Tools) within this course.

Learning Outcomes - Upon successful completion, you will be able to:
1. Use existing global and local knowledge and intelligence to identify disease control priorities within a country
2. Identify key constraints with delivery of improved health outcomes in existing disease control programmes
3. Appraise strategies, identify options and develop an action plan to improve delivery within the context of the existing health system, taking into account health care need, the socioeconomic, geographic environment and existing services
4. Interpret and devise health and disease control indicators, and devise a monitoring and evaluation programme.

Needs Assessment & Planning Tools (NAPT): Disease Control at District Level

DURATION – 1.5 days

With the decentralization of health services in most developing countries at the end of the last and beginning of this century, district health teams have become the cornerstone of analysing local health conditions and population health and developing annual plans for improving the situation. This course on Needs Assessment and Planning Tools (NAPT) helps to understand the tools used for the situational analysis of health and health conditions in tropical districts and how to prepare a consistent and meaningful local health plan which can be implemented in resource poor settings. Real life examples and information will illustrate the challenges faced by public health physicians and their teams and possible solutions will be discussed. All examples will be towards practice in developing countries.

Learning Outcomes
Upon successful completion of the course, you will be able to:
• Explain the main elements of district health management in a tropical district
• Use a simple framework for analysing health and health services in a district
• Identify control measures which are feasible at district and community level
• Understand the main elements of health planning.

Media, Policy & Advocacy in Humanitarian Action

DURATION – 2 WEEKS

This course aims to provide students with knowledge and critical understanding of political debates regarding Western humanitarianism and issues pertaining to media and aid delivery, policy and advocacy.
Learning Outcomes
Upon successful completion, you will be able to:

1. Discuss the politics of aid delivery and humanitarian action
2. Discuss the geopolitics of humanitarian action
3. Critically review the theories of media-state relations and the factors that affect media coverage of humanitarian crises
4. Discuss practical issues pertaining to media management during humanitarian responses.

Technical Support in Humanitarian Emergencies

DURATION – 2 WEEKS

This course aims to provide you with the knowledge and critical understanding of the principal technical challenges encountered in supporting emergency humanitarian operations. It aims to enable students to adopt a reasoned and evidence-based approach to anticipating and identifying the technical challenges and to develop and evaluate strategies for their management.

Learning Outcomes - Upon successful completion, you will be able to:

1. Plan logistics support for the management of humanitarian operations
2. Develop evidence-based strategies for effective water, sanitation and environmental health programmes in humanitarian emergencies
3. Review critically the available literature and summarise key points on technical aspects of humanitarian operations support

Public Health in Humanitarian Emergencies

DURATION – 2 WEEKS

This course aims to provide you with knowledge and critical understanding of common public health problems in humanitarian emergencies. It aims to enable students to adopt an evidence-based and reasoned approach to the critical assessment and management of the problems and to develop and evaluate strategies for their prevention and control.

PLANNING, MANAGEMENT & PERSONAL DEVELOPMENT

Organisation & Management

DURATION – 2 WEEKS

This course aims to provide you with knowledge and critical understanding of the organisation and management of health care organisations. Although the practical aspects of management are the most critical for managers, it is also important to have some grounding in the major theories. Some managers help to plan programmes, whilst others may have plans for their programmes prepared at a higher level in the organisation. Whichever is the case, a major part of the manager's work is to implement plans of action and the module aims to provide a variety of tools and approaches to help managers with this task.

Learning Outcomes
Upon successful completion, you will be able to:

1. Describe key principles and functions of management within an organisation
2. Analyse the effectiveness of management systems in an organisation
3. Identify ways of improving organisational effectiveness using quality and human resource management initiatives
4. Identify strategies for the successful implementation of change in organisations.
**Human Resource Planning & Management**

**DURATION – 2 WEEKS**

Increasing attention is now being paid to the need to improve the staffing of health services to meet the health related Millennium Development Goals and other pressing health needs. Initiatives are being led at a global level, for example, the Global Health Workforce Alliance, and at regional and national level to meet the current challenges of staffing health services - particularly those in underserved areas. People with expertise in human resource planning and management are urgently needed to complement these efforts.

**Learning Outcomes**

In a way that is demonstrably informed by appropriate theory and documented experience, you will be able to:

- analyse factors critically that influence the external and internal labour markets relevant to a particular organisation
- develop a strategic plan for improving the effectiveness and efficiency of the health workforce in a given situation
- design organisational capacity for managing human resources effectively
- review critically and evaluate the planning, management and development of human resources in a health care organisation.
- access, adapt and use tools for human resource planning and management.

**Practical Financial Management**

**DURATION – 2 WEEKS**

This course aims to provide participants with the critical and practical skills and confidence required to analyse, plan and manage the financial aspects of humanitarian and development in Non-Governmental Organisations.

**Learning Outcomes**

Upon successful completion, you will be able to:

1. Identify and respond to the challenges that NGO managers of humanitarian and development programmes face in relation to management of financial resources and donor funds.
2. Implement effective financial systems based on the four building blocks of financial management: accounting records, internal control, financial planning and financial monitoring.
3. Define and critically analyse the key features of a financing strategy for a financially sustainable NGO.
4. Define the critical factors for successful management of donor funds.

**Principles of Evidence Informed Policy & Practice**

**DURATION – 2 WEEKS**

This course aims to give students an understanding of how research evidence may be used in policy and practice in middle and low income countries. It will cover approaches to effecting change and some of the constraints and opportunities, set in the context of the student's own professional practice.

**Learning Outcomes**

Upon successful completion, you will be able to:

1. Discuss specific approaches that help change health professionals' practice
2. Extract essential information from a systematic review and consider its relevance to their own work situation
3. Discuss critically some of the constraints and opportunities to making health care more informed by good research.

**International Health Consultancy**

**DURATION – 3 WEEKS**

To provide emerging individuals with an opportunity to enhance and improve their professional knowledge and skills in the provision and management of consultancy services within the context of international health and deliver work that is robust, evidence-based and grounded in the reality of resource-poor settings. An exciting aspect of this course is the application of learning through project (consultancy) assignments. This will include the opportunity for you to present your learning to outside agencies.
**Learning Outcomes**

By the end of this intensive 3-week course, participants will be able to:

- Understand the context of key global initiatives and new developments in international health in their role as a consultant;
- Demonstrate the skills required to work as an international consultant,
- Describe the international health consultancy process and its management, and
- Deliver successful consultancies.

**TRAVEL MEDICINE**

**Travel & Expedition Medicine**

DURATION – 1 WEEK

This annual five-day course is aimed at interested health care professionals advising travellers and/or those planning to work as expedition medics. The course will cover the fundamentals of travel health and expedition medicine and highlight any advances in the field of travel medicine.

**PARASITOLOGY & LABORATORY COURSES**

**Laboratory Diagnosis of Faecal Parasites**

DURATION – 3 days

ACCREDITATION – Institute of Biomedical Science and the Royal College of Pathologists

This intensive course has a high practical content and is designed for medical officers and biomedical scientists. It concentrates on the identification in the laboratory of those parasites of medical importance (both indigenous and imported) likely to be seen in Western Europe. We will use a series of mini lectures by specialist staff, followed by extensive practical work.

**Course Content:**

- Examination of wet preparations faeces for the diagnosis of protozoa and helminths
- Biology of Nematodes, Trematodes and Cestodes
- Uses of concentration techniques
- Staining methods for Cryptosporidium and D.fragilis
- Diagnostic problems and other self assessment exercises.

**Laboratory Diagnosis of Faecal & Blood Parasites**

DURATION – 5 days

ACCREDITATION – Institute of Biomedical Science and the Royal College of Pathologists

This intensive course has a high practical content and is designed for medical officers and biomedical scientists. The course concentrates on the identification in the laboratory of those parasites of medical importance (both indigenous and imported) likely to be seen in Western Europe. We will use a series of mini lectures by specialist staff, followed by extensive practical work.

**Course Content:**

- Examination of faeces for the diagnosis of protozoa and helminths
- Malaria - recognition of parasites and other diagnostic approaches
- Recognition and diagnosis of haemoflagellates, spirochaetes and filarias
- Diagnostic problems and other self assessment exercises
- Parasites in the immunocompromised host.

**Laboratory Diagnosis of Malaria**

DURATION – 3 days

ACCREDITATION – Institute of Biomedical Science and the Royal College of Pathologists

This intensive course has a high practical content and is designed for medical officers and biomedical scientists. It is
appropriate for haematologists undertaking professional examinations or those needing an update in parasitology. We will concentrate on the biology and differential diagnosis of malaria in the laboratory but other blood-related parasites are also included. We will use a series of mini lectures by specialist staff, followed by extensive practical work.

**Course Content:**
- Biology of malaria parasites
- Diagnosis - morphological differential of blood-stage parasites; other approaches; quantification
- Morphological anomalies and artefacts
- Malaria and the traveller / Clinical aspects in relation to laboratory diagnosis
- Diagnostic problems and other self-assessment exercises
- Introduction to other blood and tissue parasites

**Molecular & Cellular Biology of Parasites & Vectors**

DURATION – 4 weeks

This course aims to provide you with knowledge and critical understanding of the molecular biology, cell biology and biochemistry of eukaryotic parasites and their vectors.

**Learning Outcomes**
Upon successful completion, you will be able to:
1. Discuss the importance of differences in the molecular biology, cell biology and biochemistry of eukaryotic parasites from those of their vectors and mammalian hosts
2. Identify the unique adaptations of parasites and critically review their importance in survival and completion of their life cycles
3. Critically review the exploitation of biochemical differences between parasites and their hosts in relation to parasite chemotherapy and vaccine research
4. Apply a range of techniques in molecular cell biology and critically interpret the outcomes

**Course Outline**
- The use of recombinant DNA technology, molecular cell biology and biochemical techniques as research tools in parasitology and vector biology.
  - Surface antigens of parasites and their role in invasion and survival in mammalian hosts.
  - The molecular and biochemical basis of antigenic variation and antigenic diversity in protozoan parasites.
  - Surface membrane enzymes and transporters and their role in acquisition of nutrients by parasites.
  - Invasion and survival of intracellular parasites.
  - Survival and development of parasites in their arthropod vectors and parasite/vector interaction.
  - Unique biochemical pathways found in parasites and their potential for exploitation as chemotherapeutic targets; empirical and rational drug design.
  - Molecular and developmental biology of insects and other vectors.
  - Molecular basis of insecticide resistance in vectors.
  - Molecular and developmental biology of helminth parasites; structure and function of the surface membrane/cuticle.
  - Unusual features of gene organisation and regulation in kinetoplastid parasites.
  - Organelles and subcellular compartments in parasites.

**Parasite Epidemiology & Control**

DURATION – 4 weeks

This course aims to provide you with knowledge and critical understanding of the principles of parasite ecology and epidemiology and their practical application.

**Learning Outcomes**
Upon successful completion of this module, students will be able to:
1. Explain the meaning of key concepts in parasite epidemiology
2. Apply techniques used in epidemiological surveys
3. Critically analyse and interpret ecological and epidemiological data
4. Discuss the roles and effectiveness of chemotherapy and chemoprophylaxis in control of parasites.
Course Outline

- Monitoring & Evaluation
- Sampling
- Modelling
- Malaria
- Sero-diagnosis
- Microsporidia
- Cryptosporidium
- African Trypanosomiasis
- Schistosomiasis
- Global Filariasis Control
- Faecal protozoal staining
- Malaria drug sensitivity

Immunology of Parasitic Infections

DURATION – 4 Weeks

This course aims to provide you with knowledge and critical understanding of the interaction of eukaryotic parasites with the immune system of humans and other mammalian hosts and to examine ways in which protection against these diseases might be achieved by vaccination.

Learning Outcomes

Upon successful completion, you will be able to:

1. Explain the nature of humoral and cell-mediated immune responses to parasitic infections
2. Discuss the role of cytokines in the modulation of anti-parasitic responses
3. Explain why inappropriate immune responses can have undesirable immune-pathological consequences
4. Discuss immune evasion strategies that parasites employ and explain their significance to chronic infection
5. Use current research to explain how anti-parasite vaccination might be achieved
6. Apply a range of immunological techniques and critically interpret the outcomes.

Course Outline

- Immune responses to protozoan infections (malaria, leishmaniasis, trypanosomiasis)
- Antigenic variation and diversity in malaria; antigenic variation in African trypanosomes
- Immunopathology of protozoan and helminth infections
- Immune responses to helminth infections (schistosomiasis, filarial nematodes, intestinal nematodes, cestodes)
- Helminth evasion and modulation of immune responses
- Approaches to vaccination against protozoan and helminth infections
- Use of immunological methods for the diagnosis of parasitic infections.

Vector Population Biology & Control

DURATION – 4 weeks

This course aims to provide you with knowledge and critical understanding of population biology as applied to vector ecology with an emphasis on the practical methods used and the relevance for epidemiology and control.

Learning Outcomes

Upon successful completion, you will be able to:

1. Explain how ecological techniques are used to investigate vector population dynamics and how this knowledge can be applied to control
2. Discuss key principles of population genetics and population structure, the methods available for their study and their relevance for vector control
3. Explain how the principal genetic, chemical, biological and physical methods of control for vectors are carried out and discuss their limitations
4. Discuss the major forms of insecticide resistance, their genetic and bio-chemical basis and their impact on control operations
5. Evaluate the importance of vector control in relation to other methods, including chemotherapy and vaccines.
Course Outline

• Age structure and life tables
• Reproductive rates
• Density dependent and independent processes
• Competition within and between species
• Epidemiological models
• Key concepts in population genetics and their relevance
• Field sampling of insect vector groups

Key Topics in Snakebite: Biology, Epidemiology, Pathology & Treatment

DURATION – 2 weeks

LSTM hosts the Alistair Reid Venom Research Unit with a herpetarium housing more venomous snake species than any other research establishment in Europe, mainly spitting cobras, puff adders and carpet and saw-scaled vipers because of their significance in envenoming.

This course aims to provide you with in-depth knowledge and critical understanding of key topics in relation to snakebite - a neglected disease of the rural poor in Africa and Asia. It will describe the disease burden and risk groups that make snakebite such a neglected disease and what attempts are being made to increase the global recognition of snakebite as a public health concern in the tropics. The course will also illustrate how a fuller understanding of snakebite pathology, treatment and epidemiology can be gained from studies on molecular, biochemical and immunological aspects of snake venoms and venomous snakes. The content is designed to appeal to people from diverse academic backgrounds (e.g. biology, public health, medicine and veterinary medicine).

Learning Outcomes

Upon successful completion, you will be able to:

1. Discuss critically the major issues that categorise snakebite as a Neglected Tropical Disease.
2. Demonstrate detailed in-depth knowledge and understanding of the clinical treatment and epidemiology of snakebite and the basic biology of venomous snakes.
3. Explain how an understanding of molecular, biochemical and immunological aspects of snake venom and venomous snakes relate to, and inform our knowledge of, the biology, epidemiology, pathology and treatment of snakebite.
4. Conduct an enzyme-linked immunosorbent assay (ELISA) assay in the laboratory and correctly interpret the results

Course Outline

• Introduction to snakebite
• Epidemiology of snakebite
• Clinical and first aid treatment of snakebite
• Molecular and cellular biological aspects of snake venoms
• Current and future approaches to snakebite treatment
• Issues associated with the purchase and delivery of anti-venom to treat snakebite
• Public Health topics in snakebite
• Practical sessions

Applied Bioinformatics

DURATION – 2 weeks

This course aims to provide you with knowledge and critical understanding of modern technology platforms in bioinformatics and functional genomics and practical experience of computational methods used to interpret the output data.

Learning Outcomes

Upon successful completion, you will be able to:

• Demonstrate a detailed and critical understanding of proteomics, transcriptomics, metabolomic and functional genomics technologies
• Apply bioinformatics approaches to address research questions and problems of practical relevance
• Critically evaluate the literature pertaining to the approaches and technologies employed in functional genomics research and discuss the importance of recent developments to current and future research
Course Outline

Transcriptomics - lectures, practicals and tutorials to include:
file manipulations; batch processing; annotation of datasets;
critical appraisal of selected publications addressing
transcriptomics technologies.

Genomics - lectures, practicals and tutorials to include:
modern sequencing technologies and their application; simple
sequence assembly; Critical appraisal of selected publications
addressing genomics technologies.

Proteomics - lectures, practicals and tutorials to include:
Introductions to technologies and data resources; manual
examination of MS spectra and submission to MASCOT
databases; Pmf; MSMS ions; de novo sequencing; critical
appraisal of selected publications addressing proteomics
technologies.

Bioinformatics - lectures, practicals and tutorials to include:
introductions to sequence resources; databases and data
manipulation; BLAST; Alignments; Translations; interpro;
phylogenetic trees; 3D protein modelling; pathways and KEGG;
single versus multidomain proteins CDD; genomic locations;
Critical appraisal of selected publications addressing
bioinformatics methods.
About Liverpool

Built on an illustrious heritage that stretches back 800 years, Liverpool has a global reputation for sport, music, architecture and a wealth of culture for students to explore.

Today the city is enjoying a resurgence, driven by its designation as European Capital of Culture in 2008. With more museums, theatres, galleries and listed buildings than in any other region outside London, Liverpool’s cultural wealth has long been a major attraction.

Now one of the UK’s top five retail destinations, Liverpool is where you can certainly shop until you drop at the new Liverpool One complex. Boasting more number one hit singles than any other city, Liverpool’s music scene could not be more eclectic, while its nightlife is vibrant, energetic and rivals that of any other UK city.

When eating out, visitors can choose from a host of restaurants, cafes and bars that cater for all tastes and budgets.

Home to two of Europe’s most famous football teams - Liverpool and Everton FC - the city’s achievements in sport are internationally recognised. Add to this a skyline with the same World Heritage Site status as The Pyramids at Giza and the Taj Mahal, Liverpool is truly the jewel in the crown of England’s North West.

Location wise, Liverpool is hard to beat for it’s central position – we are:

• 2 hours away from London by train (typical costs from £60 return)
• 1 hour flight from Liverpool to Ireland (typical costs from £19.99 each way)
• 90 minutes from the beautiful Lake District area of outstanding national beauty
• 3 hours train to Edinburgh, Scotland
• Rugged coastline of North Wales is within 45 minutes drive

Other popular cities to visit are:

• Manchester – 40 minutes by train or car
• Chester – 40 minutes by train or car
• Blackpool – 1.5 hours by train or car
• Birmingham – 1.5 hour drive, 1.5 hour train

www.lstmliverpool.ac.uk
Researching & Educating to save lives
LSTM Mission Statement

As a centre of excellence, the Liverpool School of Tropical Medicine, through the creation of effective links with governments, organisations and institutions and by responding to the health needs of communities, aims to promote improved health, particularly for people of the less developed countries in the tropics and sub-tropics by:

1. Providing and promoting high quality education and training;
2. Conducting first-class research and disseminating the result of that research;
3. Developing systems and technologies for health care and assisting in their transfer and management;
4. Providing appropriate consultancy services; in fulfilling this mission the Liverpool School of Tropical Medicine also provides a clinical service of acknowledged excellence.

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