Module Catalogue



All MSc

Programmes

2017/18

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1	Title of Module	Development of a Disease Control Programme
2	Module Code	TROP706
4	Semester	2
6	Credit Value	10
7	Module Convenor	
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Masters programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the Module Convenor.
17	Programme(s) for which this Module is Required	None.
18	Programme(s) for which this Module is Optional	MTID, MTP
19	Aim of the Module	

This module aims to provide students with knowledge and critical understanding of the principles and processes of designing and monitoring a disease control programme in a low or middle-income country.

20 Overview of the Module

In most low and middle-income countries TB, malaria and HIV/AIDS continue to be major causes of human suffering and preventable death. Interventions to control these 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. In this module, we will provide clinicians with tools to develop a disease control programme that addresses gaps in service delivery at district level. We follow a participatory approach as it is done by a district health management team and together work through the planning cycle: situational analysis and needs assessment, priority setting, problem analysis, option appraisal, implementation plan including logical framework, and monitoring and evaluation. You will learn how to identify a disease control problem from a real life, self- selected research study and alongside the teaching sessions you will develop your own programme. At the beginning of the second week of the module you will present the programme outline and receive formative feedback. During the second week, peer-led work on students' programmes continues and experts in the field present specific aspects of disease control programmes where you will discover 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 disease control interventions. The module is taught using a student-centred approach including tutor-led presentations, group work, student-led presentations and selfstudy. It is assessed by a 2500 word written disease control programme, written in a format of a report and using clearly defined Terms of Reference.

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Use existing global and local knowledge and intelligence to identify disease control priorities within a country.	Assignment	Tutorials, seminars
2	Identify key constraints with delivery of improved health outcomes in existing disease control programmes.	Assignment	Tutorials, seminars
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.	Assignment	Tutorials, seminars
4	Interpret and devise health and disease control indicators, and devise a monitoring and evaluation programme.	Assignment	Tutorials, seminars, laboratory

1	Title of Module	Organisation and Management
2	Module Code	TROP708
4	Semester	2
6	Credit Value	10
7	Module Convenor	Joanna Raven
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Master's programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the module convenor.
17	Programme(s) for which this Module is Required	МІРНРМ, МННРМ
18	Programme(s) for which this Module is Optional	MTID
19	Aim of the Module	

This module aims to provide students with knowledge and critical understanding of the organisation and management of health care organisations

20 Overview of the Module

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 will provide you with a variety of tools and approaches to help with this task. You will learn about structures and cultures of organisations; different management functions; monitoring the implementation of plans and taking corrective action; performance and quality management; and management of change. The module is taught using a student-centred approach including group exercises, case studies and directed reading, supported by presentations from LSTM lecturers and outside speakers. It is assessed by a 3000 word critical analysis of a case study.

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Describe key principles and functions of management within an organisation	Written Assignment	Lectures, seminars
2	Analyse the effectiveness of management systems in an organisation	Written assignment	Lectures, seminars
3	Identify ways of improving organisational effectiveness using quality and management initiatives	Written assignment	Lectures, seminars
4	Identify strategies for the successful implementation of change in organisations	Written assignment	Lectures, seminars

1	Title of Module	Parasite Epidemiology and Control
2	Module Code	TROP719
4	Semester	2
6	Credit Value	20
7	Module Convenor	James La Course
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Student will normally have completed Semester 1 of an LSTM Masters programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the Module Convenor
17	Programme(s) for which this Module is Required	MBCPDV
18	Programme(s) for which this Module is Optional	None
19	Aim of the Module	

This module aims to provide students with knowledge and critical understanding of the principles of parasite ecology, epidemiology, control and their practical application

20 Overview of the Module

Tropical disease caused by parasites blights the lives of over a billion people globally and the application of epidemiological methodology is key in the fight against these debilitating infections. The science of epidemiology integrates surveillance, statistical analyses, laboratory and field science, clinical and public health information in order to understand and manage health-related problems and disease in communities, areas and regions. In this module, you will learn about the major control programs and approaches to combat malaria, trypanosomiasis, schistosomiasis, soil-transmitted helminths and filarial nematodes. You will also look at the applicable aspects of surveys, sampling, modelling, education and communication, and the impact of drug resistance on epidemiology. The module is taught by a combination of lectures, seminars, laboratory practicals and student-directed learning exercises. In the practical sessions, you will be introduced to diagnostic sample concentration methods, drug-sensitivity assays, use of 'Rapid Diagnostic Tests' and staining methods for blood and faecal parasites. The module is assessed by a two hour essay examination (50%) and the production and presentation of a poster summarising a mock epidemiological field-based survey based in a fictional region of Sub-Saharan Africa (50%).

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Explain the meaning of key concepts in parasite epidemiology	Examination	Lectures, tutorials
2	Describe and apply techniques used in epidemiological surveys	Examination, Poster	Laboratory
3	Critically analyse and interpret ecological and epidemiological surveys	Examination, Poster	Tutorials
4	Discuss the roles and effectiveness of chemotherapy and chemoprophylaxis in control of parasites	Examination	Lectures, tutorials

1	Title of Module	Immunology of Tropical Diseases
2	Module Code	TROP739
4	Semester	2
6	Credit Value	20
7	Module Convenor	Britta Urban
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Masters programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the Module Convenor.
17	Programme(s) for which this Module is Required	None
18	Programme(s) for which this Module is Optional	MMBPDV, MBCPDV, MTID, MTP
19	Aim of the Module	

This module aims to provide students with knowledge and critical understanding of tropical diseases and the immune response of humans and other mammalian hosts and to examine ways in which protection against these diseases might be achieved by vaccination and sero-therapy.

20 Overview of the Module

In this module you will learn how the host defends itself against complex pathogens including protozoa, helminths, bacteria and viral infections commonly encountered in tropical regions. You will appreciate the complex interaction between the pathogen and the host that contribute to pathology, immune evasion and chronic infections. The module covers a diverse range of topics including a introduction to basic immunology and immunological techniques, immunity to various pathogens, antigenic variation of Plasmodium falciparum, modulation of immune responses by helminths, serotherapy of snake bite, and modern approaches to vaccination. The module is taught through a combination of lectures, tutorials and practical classes. You will have the opportunity to examine up-to-date research literature through student-led presentations and one week is devoted to intensive laboratory sessions during which you will be exposed to a range of cutting-edge immunological techniques. You will be expected to supplement your learning through directed reading. The module is assessed by a two hour essay examination (50%) and a 3000 word laboratory report (50%).

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Explain the nature of humoral and cell-mediated immune responses in infections.	Examination	Lectures, tutorials
2	Apply a range of immunological techniques and critically interpret the outcomes.	Assignment	Laboratory
3	Explain why inappropriate immune responses can have undesirable immune-pathological consequences.	Examination	Lectures, tutorials
4	Discuss immune evasion strategies that pathogens employ and explain their significance for chronic infection.	Examination	Lectures, tutorials
5	Use current research to explain how sero-therapy and vaccination against tropical diseases might be achieved.	Examination	Tutorials

1	Title of Module	Vector Population Biology and Control
2	Module Code	TROP741
4	Semester	2
6	Credit Value	20
7	Module Convenor	Mark Paine/Dave Weetman
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Masters programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the Module Convenor
17	Programme(s) for which this Module is Required	None
18	Programme(s) for which this Module is Optional	MMBPDV, MBPCDV
19	Aim of the Module	

This module aims to provide students with knowledge and critical understanding of how theory and practical techniques in disease vector population biology are applied in the design and implementation of control programmes.

20 Overview of the Module

Vector population biology is a diverse field at the centre of well-designed control programmes. In this module you will study and apply knowledge of vector genetics and evolution, behaviour, population ecology and population connectivity and demography. The module aims to provide not only in-depth insights into the key features of particularly important vectors and how these can be exploited for control, but also to identify cross-cutting themes, which can inform integrated multi-disease management programmes. Multiple methods of control, including genetic (transgenic), chemical, biological and physical methods will be compared and evaluated, along with practical methods essential for monitoring and evaluation of interventions. Learning occurs through a combination of lectures and seminars – many involving guest speakers, all of whom are experts in the field, discussion group sessions using problem-based approaches, some with informal presentations (such as a journal club paper evaluation session), and laboratory, field and computer practicals. The module is assessed by a 1.5 hour multiple choice and short answer examination (50%), a 1500 word critical review, with emphasis on in-depth evaluation of key literature (35%) and a short presentation on a case study (disease scenario) topic (15%).

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Explain how ecological, modelling and genetic techniques are used to investigate vector population biology and how this knowledge can be applied to control	Examination, Assignment, Presentation	Lectures, group work, fieldwork
2	Explain how the principal genetic, chemical, biological and physical methods of control for vectors are carried out and discuss their limitations.	Examination, Assignment, Presentation	Lectures, group work
3	Discuss the major forms of insecticide resistance, their genetic and biochemical basis, their impact on control operations and practical solutions for their management.	Examination, Assignment, Presentation	Laboratory, group work, practical
4	Demonstrate understanding of the importance of identifying disease vectors and of how an understanding of vector behaviour is applied to control	Examination, Assignment, Presentation	Lectures, group work
5	Evaluate the importance of insecticidal vector control in relation to other methods, including non-insecticidal and novel methods, and non-vector based approaches such as chemotherapy and vaccines.	Examination, Assignment, Presentation	Lectures, group work

1	Title of Module	Key Aspects in Molecular and Cellular Biology of Parasites and Vectors
2	Module Code	TROP775
4	Semester	2
6	Credit Value	20
7	Module Convenor	Alvaro Acosta-Serrano
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Masters programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the Module Convenor
17	Programme(s) for which this Module is Required	MMBPDV
18	Programme(s) for which this Module is Optional	None
19	Aim of the Module	

This module aims to provide students with key knowledge and critical understanding of the molecular and cellular biology of selected pathogens, and vectors thereof, which cause significant tropical diseases.

20 Overview of the Module

In this module, through practical laboratory training applied to study of pathogen genes, you will gain key bench skills in the use of recombinant DNA technology, PCR, generation of transgenic pathogens. Lecture content covers a broad range of topics including state-of-the-art genomic sciences and next generation DNA sequencing; molecular biology of parasite surface antigens and their roles in pathogen invasion and survival; gene function and transcription underlying antigenic variation and diversity in kinetoplastid and apicomplexan parasites; survival and development of parasites in their arthropod vectors, including molecular basis of parasite-vector interactions; chemotherapeutic targets and drug design including insecticide resistance in key vectors; and an introduction to molecular epidemiology. Using contemporary examples of epidemics, this information will be conveyed by formal lectures highlighting key concepts and essential facts, guided reading to explore topics in greater depth, interactive tutorials to develop critical understanding, student seminars to reinforce learning outcomes and gain experience in presentation skills, and practical sessions to gain technical competence and to illustrate important concepts in action. The module is assessed by a two-hour essay examination (50%) and a 2000-word practical report (50%).

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Discuss the importance of differences in the molecular biology, cell biology and biochemistry of pathogens from those of their vectors and mammalian hosts	Examination	Lectures. seminars, tutorials
2	Identify the unique adaptations of pathogens and critically review their importance in survival and completion of their life cycles	Examination	Lectures. seminars, tutorials
3	Critically review the exploitation of biochemical differences between pathogens and their hosts in relation to parasite chemotherapy and vaccine research	Examination	Seminars, tutorials
4	Apply a range of techniques in molecular cell biology of pathogens and disease vectors, critically interpret the outcomes, and presentation in the form of a scientific draft manuscript	Assignment	Laboratory

1	Title of Module	Child Nutrition
2	Module Code	TROP776
4	Semester	2
6	Credit Value	10
7	Module Convenor	
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Masters programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the Module Convenor
17	Programme(s) for which this Module is Required	MTP
18	Programme(s) for which this Module is Optional	MTID
19	Aim of the Module	

This module aims to provide students with knowledge and critical understanding of nutrition as central to clinical and preventive paediatrics and child health

20 Overview of the Module

The module takes an evidence-based approach to explain the main priorities in applied nutrition relevant to low resource settings. You will learn about epidemiology of nutritional disorders and the assessment of nutritional status according to international growth standards. You will take an evidence-based approach to discuss treatment of Severe Acute Malnutrition and micronutrient deficiencies, both in hospital and community settings. You will explore operational aspects of nutritional rehabilitation units and emergency nutrition interventions by using practical examples. You will develop an understanding of current nutrition policies and public health strategies to prevent stunting and childhood overweight. You will also consider causative factors of nutritional disorders as food production and food security.

The module consists of lectures, seminars, group work and directed self-study, including selected on-line resources. It is assessed by a one hour short answer examination (50%) and presentation of an electronic poster on a topic related to child nutrition to a panel at an internal scientific conference (50%).

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Discuss definitions and epidemiology of nutritional disorders in relation to global policy efforts to reduce child mortality and morbidity	Examination	Lectures
2	Discuss pathophysiology, clinical presentation and management of common nutritional disorders in resource poor settings	Examination	Tutorials, laboratory
3	Discuss public health aspects of child nutrition including the evidence base for specific nutrition interventions (as for micronutrient supplementation)	Examination	Lectures, tutorials, seminars
4	Explain the importance of adequate nutrition throughout the life cycle for normal development and growth and the prevention of nutritional disorders	Examination	Lectures, tutorials, seminars

1	Title of Module	Political Economy of Humanitarian Emergencies
2	Module Code	TROP806
4	Semester	1
6	Credit Value	30
7	Module Convenor	Barry Munslow
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Fulfils entry requirements for MSc Humanitarian Studies or MSc Humanitarian Health Programme Management
17	Programme(s) for which this Module is Required	MHHPM, MHS
18	Programme(s) for which this Module is Optional	None
19	Aim of the Module	

This module aims to demonstrate how a political economy analysis can help humanitarians to properly understand the context in which they work and which shapes the options available to them.

20 Overview of the Module

In this module you will learn about the historical context of humanitarian emergencies including empire, decolonization and globalization; complex political emergencies and the evolution of humanitarian emergencies and institutions; natural disasters, emergency planning and climate change; and sustainable development. The module is taught using a series of country and regional case studies and you will critically review and discuss key issues in complex emergencies and humanitarian assistance through group seminars and debates. The module is assessed by a three hour essay examination (40%); a 4000 word essay on an approved topic (40%); and an oral presentation (20%).

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Discuss the historical context of social conflict and human displacement	Examination, essay, presentation	Lectures, tutorials, seminars
2	Critically review the main issues in complex emergencies and humanitarian assistance	Examination, essay	Lectures, tutorials, seminars
3	Discuss the effects of globalisation on social dislocation and health	Examination, essay	Lectures, tutorials, seminars
4	Analyse the impact of natural disasters and the associated responses of the local, national and international actors	Examination, essay	Lectures, tutorials, seminars
5	Appreciate the interdisciplinary dimensions of humanitarian studies	Examination, essay, presentation	Lectures, tutorials, seminars

1	Title of Module	Complex Humanitarian Emergencies
2	Module Code	TROP807
4	Semester	2
6	Credit Value	20
7	Module Convenor	Barry Munslow
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Masters programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the Module Convenor
17	Programme(s) for which this Module is Required	MIPHHA, MHS
18	Programme(s) for which this Module is Optional	None
19	Aim of the Module	

This module aims to provide students with knowledge and critical understanding of current key themes and debates in the social sciences concerning humanitarian emergencies.

20 Overview of the Module

In this module, you will be investigating some of the big issues in humanitarianism today. You will explore how humanitarian interventions have been manipulated or instrumentalised by nations and groups to achieve their own ends, thereby compromising the core humanitarian principles of humanity, neutrality, impartiality and independence. Humanitarian work is growing ever more complex as there are many failing or failed states. Since the 'war on terror' era began after 9/11/2001, there have been those who have argued that this provides evidence of the clash of civilisations between a Christian West and other blocks, notably the Islamic states -how is such a theory flawed? The United States has assumed a role as a global policeman and there have been invasions of Afghanistan and of Iraq - have these events hastened the decline of the West and the rise of the Rest? Nation-building interventions have been tried and frequently have failed - why is this? In order to understand complex humanitarian emergencies we need to look into what anthropology can offer - is the motivation primarily greed or grievance? There are many victims of conflicts, not least child soldiers, and we will examine the problems of their reintegration into society. The module is assessed by a 5000 word essay worth 70% and an oral presentation worth 30%. You will be encouraged to follow your enthusiasms and propose issues that are of interest to you for your essay and these will be developed in one on one tutorials as well as in a group discussion.

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Demonstrate a systematic understanding of knowledge and a critical awareness of current themes and debates concerning complex humanitarian emergencies.	Essay, presentation	Lectures, seminars, tutorials
2	Evaluate and critically analyse an array of source material.	Essay, presentation	Seminars
3	Analyse in depth one particular dimension of complex emergencies.	Essay, presentation	Tutorials

1	Title of Module	Media Policy & Advocacy in Humanitarian Action
2	Module Code	TROP809
4	Semester	2
6	Credit Value	10
7	Module Convenor	Barry Munslow
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Masters programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the Module Convenor
17	Programme(s) for which this Module is Required	None
18	Programme(s) for which this Module is Optional	MIPH, MIPHHA, MIPHSRH, MIPHP&M, MHS, MHHPM
19	Aim of the Module	

This module aims to provide students with knowledge and critical understanding of political debates regarding Western humanitarianism and issues pertaining to media and aid delivery and humanitarian action.

20 Overview of the Module

The media play an ever more important role in shaping our world and in determining how we view humanitarian issues, sometimes known as the CNN effect. In this module, you will begin by looking at the role of the media in war, which starkly exposes the role of political power in shaping what is covered and how it is covered. The module then moves on to discuss three different theories that help to explain the relationship between political power and the media. We ask, who owns the media and does this matter? You will explore some of the challenges to existing media power, the role of Aljazera in comparison to the Fox network, and the growing role of social media. You will also examine where the international media failed, such as in the Rwanda genocide. The final part of the module encourages you to learn how to use the media effectively as a tool of advocacy and includes being filmed in a mock interview on camera – in the future, this could help you to manage the media better in a humanitarian crisis. In addition to lectures, the module will involve watching videos and discussing the issues that they raise. The module is assessed by a 3000 word written assignment (85%) and a 500 word reflection on the advocacy session (15%).

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Discuss the politics of aid delivery and humanitarian action.	Assignment (essay)	Lectures, seminars, tutorials
2	Discuss the geopolitics of humanitarian action in the 1990s and the new millennium	Assignment (essay)	Lectures, seminars, tutorials
3	Critically review the theories of media-state relations and the factors that affect media coverage of humanitarian crises	Assignment (essay)	Seminars, tutorials
4	Discuss practical issues pertaining to media management during humanitarian responses	Assignment (essay), Assignment (reflection)	Seminars, tutorials

1	Title of Module	Health in Humanitarian Emergencies
2	Module Code	TROP900
4	Semester	2
6	Credit Value	10
7	Module Convenor	Tim O'Dempsey
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Masters programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the Module Convenor.
17	Programme(s) for which this Module is Required	None
18	Programme(s) for which this Module is Optional	MIPH, MIPHHA, MIPHSRH, MIPHP&M, MHS, MHHPM
19	Aim of the Module	

This module aims to provide students with knowledge and critical understanding of common public health problems in humanitarian emergencies.

20 Overview of the Module

In this module you will learn how to adopt an evidence-based and reasoned approach to the critical assessment and management of health problems in humanitarian emergencies and to develop and evaluate strategies for their prevention and control. Topics covered include common public health problems; rapid needs assessment; calculating key indicators of the health status of a population; health information systems in emergencies; the primary health care approach to humanitarian emergencies; environmental health planning and management; surveillance, control and management of communicable diseases; food security and malnutrition; reproductive health, gender-based violence and sexually transmitted infections; mental health; and health promotion and post-conflict health needs. The module employs interactive lectures, student-led seminars, and group work around case studies and problem-solving exercises. Practical demonstrations of important disease vectors are held in the laboratory. The module is assessed by a 1.5 hour multiple choice question examination.

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Plan strategies for the critical assessment and management of common public health problems in humanitarian emergencies.	Examination	Lectures, seminars, tutorials
2	Develop appropriate evidence-based approaches to disease prevention, surveillance and control.	Examination	Lectures, seminars, tutorials, laboratory
3	Review critically the available literature and summarise the key issues of public health importance in humanitarian emergencies.	Examination	Seminars, tutorials

1	Title of Module	Humanitarian Operations: Environmental Health & Logistics
2	Module Code	TROP901
4	Semester	2
6	Credit Value	10
7	Module Convenor	Tim O'Dempsey
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Masters programme and have 6 months developing country experience. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the module convenor.
17	Programme(s) for which this Module is Required	None
18	Programme(s) for which this Module is Optional	MIPH, MIPHHA, MIPHSRH, MIPHP&M, MHS, MHHPM
19	Aim of the Module	

This module aims to provide students with knowledge and critical understanding of the principal technical challenges encountered in supporting emergency humanitarian operations.

20 Overview of the Module

In this module, you will learn how to adopt a reasoned and evidence-based approach to anticipating and identifying the technical challenges associated with humanitarian interventions and to develop and evaluate strategies for their management. Topics covered include planning and managing the logistics chain; tools for financial management and control; managing human resources; field communication equipment; provision and maintenance of accommodation and utilities; environmental and public health hazards; environmental health planning; managing effective programmes for sanitation and water supply; and risk factors and control strategies for vector-borne diseases. The module employs interactive lectures, student-led seminars, and group work around case studies and problem-solving exercises. Practical sessions on methods of water purification and demonstrations of important disease vectors are held in the laboratory. The module is assessed by a 1.5 hour multiple choice question examination.

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Plan logistics support for the management of humanitarian emergencies.	Examination	Lectures. seminars
2	Develop evidence based strategies for effective water, sanitation and environmental health programmes in humanitarian emergencies.	Examination	Lectures. seminars, laboratory
3	Review critically the available literature and summarise key points on technical aspects of humanitarian operations support.	Examination	Seminars

1	Title of Module	Quality Improvement in Global Child Health
2	Module Code	TROP910
4	Semester	2
6	Credit Value	10
7	Module Convenor	Stephen Allen
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Masters programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the module convenor.
17	Programme(s) for which this Module is Required	MTP
18	Programme(s) for which this Module is Optional	MTID
19	Aim of the Module	

This module aims to update participants in recent advances in the prevention and management of priority diseases affecting children in low resource settings and equip them to lead improvements in care.

20 Overview of the Module

The health and well-being of most of the world's infants and children need to be improved despite limited resources. In this module you will review priority issues in global child health focussing on latest evidence that has informed advances in disease prevention and management. Emphasis is placed on taking a broad view of health linking community interventions through to bedside clinical management and improving health outcomes by improving the quality of health care through better use of the available human and material resources. The module is taught through a combination of presentations, seminars, tutorials, case studies of quality improvement initiatives in different settings and on-line clinical case studies benchmarked against IMCI protocols. The module is assessed through a 2,500 word written report.

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching	
1	Analyse the global burden of disease and major risk factors for disease in children including inequality	Assignment	Lectures, seminars	
2	Evaluate recent research that has informed changes in health practice and programmatic approaches to improving child survival in low resource settings: IMCI; EPI	Assignment	Lectures, seminars	
3	Evaluate and apply basic approaches and tools used to improve the quality of health interventions	Assignment	Lectures, seminars	
4	Evaluate and apply approaches to adult learning that change health worker behaviour	Assignment	Lectures, seminars	
5	Lead improvements in child health through improved disease prevention and clinical management	Assignment	Lectures, seminars, tutorials	

1	Title of Module	HR Planning and Management
2	Module Code	TROP915
4	Semester	2
6	Credit Value	10
7	Module Convenor	Tim Martineau
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Masters programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the Module Convenor.
17	Programme(s) for which this Module is Required	MIPHP&M, MHHPM
18	Programme(s) for which this Module is Optional	MIPH
19	Aim of the Module	

This module aims to provide students with knowledge, critical understanding and skills to develop and sustain a high performing workforce.

20 Overview of the Module

This module is aimed at students who want to understand the complexity of human resource planning and management and want to develop and implement appropriate strategies to make a difference. You will explore the structures needed for managing a workforce, the human resource management skills, systems and tools required, the challenges of scaling up the workforce for specific programmes and how, using a systems perspective, the impact on other health programmes can be seen and foreseen. Your learning will be structured around a series of three case studies based on human resource problems, supported by guided reading and group exercises. Topics covered include the dynamics of national and international labour markets; strategic sector-wide human resource planning in the context of changing health services; managing staff supply, managing performance; employee relations; organisational capacity for the planning, management and development of an effective health workforce; and tools for human resource planning and management. The module is assessed by a 3000 word written assignment based on a case study.

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Analyse critically factors that influence the external and internal labour markets relevant to an organisation.	Assignment	Lectures, seminars
2	Develop a strategic plan for improving the effectiveness and efficiency of the health workforce in a given situation.	Assignment	Seminars
3	Design organisational capacity for managing human resources effectively.	Assignment	Lectures, seminars
4	Review and evaluate critically the planning, management and development of human resources in a health care organisation.	Assignment	Seminars
5	Access, adapt and use tools for human resource planning and management.	Assignment	Lectures, seminars

1	Title of Module	Key Concepts in Sexual and Reproductive Health
2	Module Code	TROP923
4	Semester	2
6	Credit Value	10
7	Module Convenor	Alex Manu
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Masters programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the Module Convenor and deputy convenor.
17	Programme(s) for which this Module is Required	MIPHSRH
18	Programme(s) for which this Module is Optional	MTID, MIPH
19	Aim of the Module	

Consistent with LSTM's mission to improve human health through delivery of effective interventions, this module aims to provide students with knowledge and critical understanding of the concepts of Sexual and Reproductive Health (SRH) and SRH services.

20 Overview of the Module

In this module you will explore Sexual and Reproductive Health (SRH) in the contexts of human rights, equity, gender equality and health systems and policies, and discuss the link between SRH and the United Nations' Sustainable Development Goals (SDGs). Topics covered include an introduction to the concepts, history and evolution of SRH and its components; strategies to implement SRH programmes; SRH services; needs assessment of SRH services; and monitoring and evaluation of SRH programmes. The module uses interactive lectures to introduce concepts, supported by individual and small group work on scenarios and case studies. The module is assessed by a 15 minute oral presentation on situational analysis conducted for the written assignment of this module (20%) and a 3000-word essay on situation analysis of an SRH issue in a specific population (80%).

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching	
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.	Assignment	Lectures, tutorials	
2	Critically analyse how individual and collective human behaviour affect SRH and explain how behavioural theories are used to design behavioural change communication components of SRH programmes.	Assignment	Tutorials	
3	Critically analyse how national health policy and health systems influence whether or not key SRH issues are addressed.	Assignment	Tutorials	
4	Design a situation analysis of a SRH issue in a specific population.	Presentation	Lectures, tutorials	
5	Apply the rights-based approach in SRH programming.	Assignment	Lectures, tutorials	

1	Title of Module	Maternal and Newbern Health
1		Maternal and Newborn Health
2	Module Code	TROP924
4	Semester	2
6	Credit Value	10
7	Module Convenor	Mary McCauley
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Masters programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the Module Convenor.
17	Programme(s) for which this Module is Required	MIPHSRH
18	Programme(s) for which this Module is Optional	MTP, MIPH
19	Aim of the Module	

This module aims to provide students with knowledge and critical understanding of the concepts and key issues related to Maternal and Newborn Health (MNH), in line with the current international agendas.

20 Overview of the Module

In this module you will learn how to develop a strategic plan for the reduction of maternal and neonatal mortality and morbidity, and how to plan, organise, monitor and evaluate evidence-based Maternal and Newborn Health (MNH) programmes and services, taking into consideration the importance of effective functioning health systems. Topics covered include the causes and determinants of maternal and neonatal mortality and morbidity; the global burden of and key strategies for reducing maternal and neonatal mortality and morbidity and improving MNH; Skilled Attendance at Birth and Emergency Obstetric Care; evidence based antenatal and postnatal care, measuring maternal mortality and morbidity; monitoring and evaluation of MNH services; community and demand-side aspects of MNH; and promoting evidence based practice in maternal and newborn health care. The module is taught by a combination of lectures and student-led seminars. A student-centred approach is taken using discussion and group work, supported by independent study and directed reading. The module is assessed by a 15 minute oral presentation based on directed reading (20%) and a 2000 word written assignment (80%).

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Demonstrate a detailed and critical understanding of the current and historical international concepts and strategies to improve MNH.	Assignment, Presentation	Lectures, tutorials
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.	Assignment, Presentation	Lectures, tutorials
3	Plan evidence-based programmes and services for the reduction of maternal and neonatal mortality and morbidity and improvement of MNH.	Assignment	Lectures, tutorials
4	Critically evaluate MNH programmes and services and explain the limitations of methods for measuring maternal mortality.	Assignment	Lectures, tutorials

1	Title of Module	Sexual Health and Human Sexuality
2	Module Code	TROP926
4	Semester	2
6	Credit Value	10
7	Module Convenor	Francis Muriithi
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Masters programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the Module Convenor.
17	Programme(s) for which this Module is Required	MIPHSRH
18	Programme(s) for which this Module is Optional	MIPH
19	Aim of the Module	

This module aims to provide students with knowledge and critical understanding of the concepts of sexual health and human sexuality.

20 Overview of the Module

In this module you will learn about human sexuality, sexual health and sexual dysfunction, sexuality and relationships education; epidemiology and prevention and control of Sexually Transmitted Infections (STIs) and HIV infection; the syndromic approach to diagnosis and management of STIs; counselling and testing for HIV and Prevention of Mother to Child Transmission; organisation, planning and monitoring and evaluation of family planning programmes; unwanted pregnancy and (unsafe) abortion; sexual and gender-based violence; and epidemiology and prevention of cervical cancer. The module is taught by a combination of lectures and student-led seminars. A student-centred approach is taken using discussion and group work, supported by independent study and directed reading. The module is assessed by a 15 minute oral presentation based on directed reading (20%) and a 2000 word written assignment (80%).

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
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.	Assignment, Presentation	Lectures, tutorials
2	Explain the benefits of FP and its role in SRH programmes.	Assignment, Presentation	Lecturers, tutorials
3	Design, monitor and critically evaluate FP programmes and services.	Assignment, Presentation	Lectures, tutorials
4	Discuss the effectiveness and limitations of different prevention and control strategies for STIs, including HIV, in resource-poor countries.	Assignment	Lectures, tutorials
5	Design, monitor and critically evaluate a programme for the control of STIs and HIV infection.	Assignment	Tutorials

1	Title of Module	Global Climate Change and Health
2	Module Code	TROP927
4	Semester	2
6	Credit Value	10
7	Module Convenor	Tim O'Dempsey
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Masters programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the Module Convenor.
17	Programme(s) for which this Module is Required	None
18	Programme(s) for which this Module is Optional	MIPH, MIPHHA, MIPHP&M, MHS, MHHPM
19	Aim of the Module	

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

20 Overview of the Module

Climate change is one of the greatest challenge facing the World in the 21st century and this module will look at its wider impact on lives and livelihoods across all continents. You will explore the economic, political, social and environmental determinants of vulnerability to the effects of climate change and will be encouraged to examine critically the key strategies of adaptation and mitigation. Core information will be presented in lectures and will be expanded in seminars through group discussion of case studies. The module is assessed by a 3000 word critical essay. You will be able to write the essay on whatever aspect of the module interests you most following consultation with the lecturer; this can have a direct focus on health issues but it can also take up other areas of concern related to climate change.

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching	
1	Identify and critically analyse current and potential threats to human lives and livelihoods due to global climate change.	Assignment	Lectures, seminars, tutorials	
2	Discuss the complex social, political, economic and environmental determinants of vulnerability to the effects of global climate change.	Assignment	Lectures, seminars, tutorials	
3	Explain how global climate change is likely to affect the nature, frequency and magnitude of humanitarian emergencies.	Assignment	Lectures, seminars, tutorials	
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.	Assignment	Lectures, seminars, tutorials	
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.	Assignment	Lectures, seminars, tutorials	

1	Title of Module	Research Methods in International Health
2	Module Code	TROP934
4	Semester	1
6	Credit Value	30
7	Module Convenor	Martyn Stewart
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Fulfils entry requirements for MSc programmes in International Public Health, Humanitarian programmes, Topical Infectious Diseases and Tropical Paediatrics
17	Programme(s) for which this Module is Required	MIPH, MIPHHA, MIPHSRH, MIPHP&M, MTID, MTP, MHS, MHHPM
18	Programme(s) for which this Module is Optional	None
19	Aim of the Module	

This module aims to provide students with the knowledge and critical understanding, practical competencies, skills and expertise to design, carry out, analyse, interpret and write up a research study.

20 Overview of the Module

In this module you will cover key aspects of the research process, including literature retrieval and review, critical appraisal, epidemiological study design, sampling design and both qualitative and quantitative data collection methods, proposal development, data management and data analysis. You will be able to apply your knowledge through conducting a short group research study based on an understanding of the theory and principles of applied qualitative research. The module uses a variety of learning & teaching approaches. Formal presentations are supplemented by discussion sessions using case studies and research papers; problem-based and experiential group work and student-led seminars and presentations. The module is assessed by a 1.5 hour exam relating to epidemiology and basic statistics (30%); a 1500 word critical reflection of a group qualitative research study (30%); and a 2500 written research proposal (NB Students must gain a minimum mark of 40% in this assignment in order to pass the module).

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Demonstrate and apply a critical understanding of the theory and practice of research, including the underlying philosophical and epistemological assumptions and the ethical issues of conducting research in a global health context.	Written assignments	Lectures, seminars, tutorials
2	Apply the appropriate research methods for particular research questions.	Assignment (proposal)	Lectures, seminars, tutorials
3	Analyse and critically interpret research results across a range of epidemiological study designs using appropriate software, statistical tests and formulae.	Examination	Lectures, seminars
4	Retrieve and critically appraise research reports and other publications	Assignment (proposal)	Lectures, seminars, tutorials
5	Design, conduct, analyse, report and appraise a qualitative study	Assignment (reflection)	Lectures, seminars

1	Title of Module	Research Methods in Parasitology and Vector Biology
2	Module Code	TROP936
4	Semester	1
6	Credit Value	30
7	Module Convenor	Martyn Stewart
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Fulfils entry requirements for MSc programmes in Biology & Control of Parasites and Disease Vectors or Molecular Biology of Parasites & Disease Vectors
17	Programme(s) for which this Module is Required	MMBPDV, MBCPDV
18	Programme(s) for which this Module is Optional	None
19	Aim of the Module	

This module aims to provide students with the knowledge and critical understanding, practical competencies, skills and expertise to design, carry out, analyse, interpret and write up a research study.

20 Overview of the Module

In this module you will cover key aspects of the research process, including literature retrieval and review, critical appraisal, epidemiological study design, sampling design, proposal development, data management and data analysis. You will gain proficiency in essential practical techniques used in the research laboratory and in the laboratory maintenance of parasites and vectors. The module uses a variety of learning and teaching approaches. Formal presentations are supplemented by discussion sessions using case studies and research papers; problem-based and experiential group work and student-led seminars and presentations. The module is assessed by a 1.5 hour exam relating to epidemiology and statistics (30%); a 3000 word report from 3 practicals (30%); and a 2500 written research proposal (NB Students must gain a minimum mark of 40% in this assignment in order to pass the module).

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching	
1	Demonstrate and apply a critical understanding of the theory and practice of research, including the underlying philosophical and epistemological assumptions and the ethical issues of conducting research in a global health context	Assignment (proposal)	Lectures, seminars, tutorials	
2	Apply the appropriate research methods for particular research questions	Assignment (proposal)	Lectures, seminars, tutorials	
3	Analyse and critically interpret research results across a range of epidemiological study designs using appropriate software, statistical tests and formulae	Examination	Lectures, seminars	
4	Retrieve and critically appraise research reports and other publications	Assignment (proposal)	Lectures, seminars, tutorials	
5	Demonstrate competency in a range of laboratory skills and bioinformatic tools relevant to the field of parasitology and vector biology	Assignments (practical reports)	Laboratory	

1	Title of Module	Key Themes in International Health and Health Policy
2	Module Code	TROP937
4	Semester	1
6	Credit Value	30
7	Module Convenor	Joe Valadez/Caroline Jeffery
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Fulfils entry requirements for entry to MSc Public Health (all pathways)
17	Programme(s) for which this Module is Required	MIPH, MIPHHA, MIPHP&M, MIPHSRH
18	Programme(s) for which this Module is Optional	None
19	Aim of the Module	

This module aims to provide students with knowledge and critical understanding to place their work in the context of some current key issues in international health.

20 Overview of the Module

In this module you will explore the key players in international health, the historical developments, current priorities and emerging issues, and explain how these shape international health policy and practice. The module uses lectures to introduce key themes, followed by seminars involving group work and student presentations. Student learning is supported by directed reading and independent research. The module is assessed by a 3000 word written assignment in which you will critically analyse the current health system response to a health problem that is a national health priority. (40%); a poster covering health care funding options based on a supplied scenario (30%); and a planning exercise based on a supplied logical framework (30%).

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Critically analyse global public health and health systems	Assignment 1	Lectures, seminars
2	Discuss the multiple determinants of public health and evaluate strategies to improve it	Assignment 1	Lectures, seminars
3	Analyse equity, gender and rights-based elements underpinning health policy and implementation	Assignment 1, poster	Lectures, seminars
4	Apply policy, planning and financing principles to advance major public health strategies	Assignment 1, poster	Lectures, seminars
5	Use planning techniques such as log frames and programme monitoring approaches to implement strategies addressing public health priorities	Assignment 2	Lectures, tutorials

1	Title of Module	Current Clinical Challenges in Tropical Medicine
2	Module Code	TROP938
4	Semester	1
6	Credit Value	30
7	Module Convenor	SyedMohd Akramuzzaman
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Fulfils entry requirements to MSc Tropical & Infectious Diseases or MSc Tropical Paediatrics
17	Programme(s) for which this Module is Required	MTID, MTP
18	Programme(s) for which this Module is Optional	None
19	Aim of the Module	

This module aims to provide students with knowledge and critical understanding of the diagnosis, management and control of tropical infections and non-communicable diseases of children and adults in a variety of regional and resource settings.

20 Overview of the Module

In this module you will explore key challenges and emerging issues using case studies, clinical scenarios and critical analysis using both reviews and cutting-edge research papers so that you can adopt an evidence-based and analytical approach to applying your knowledge. The module will enhance your understanding of these key challenges and it will demonstrate how research questions can be developed and applied to improve clinical outcomes.

The module is delivered via an integrated package of interactive lectures, student-led seminars, group work, problemsolving exercises, laboratory practicals and discussion of case studies but doesn't include bed side teaching sessions. Each week focuses on one or two key diseases or programme areas, with students being given relevant background reading to complete before the seminar. There is a strong emphasis on the application of knowledge, and students are asked to consider conflicting research evidence and to develop research questions, management or programming strategies, appropriate to the context.

The module is therefore collaborative and interdisciplinary in nature, attended by both, students from MSc Tropical Paediatrics and MSc Tropical and Infectious Diseases, reflecting the realities of service delivery in most health facilities in settings with limited resources. By working on tasks in mixed groups you will also develop skills in presentation, teamwork and management of your time, workload and learning. This reflects how you will be expected to apply your knowledge to clinical, research and programming scenarios encountered in your future career as a senior clinician, programmer, manager or researcher.

The module is assessed by two 2.5 hour written short answer examinations, including microscopy tasks (35% each) and a 30 minute oral examination (30%).

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Demonstrate a detailed and systematic knowledge of the research evidence and programmatic issues relevant to the epidemiology, pathogenesis, clinical presentation, complications, differential diagnosis and investigation of important tropical infections	Examinations (oral and written)	Lectures, seminars, laboratory
2	Apply this understanding in a reasoned and critical manner to the clinical diagnosis, management and control of such diseases in adults and children and in a variety of regional and resource settings.	Examinations (oral and written)	Lectures, seminars, laboratory
3	Apply this understanding to the in-depth exploration of an area of clinical diagnosis, management or control of an important tropical disease	Examinations (oral and written)	Lectures, seminars, laboratory
4	Use clinical laboratory methods for the diagnosis of important tropical infections and diseases	Examination (written)	Laboratory

1	Title of Module	Biology of Tropical Health, Pathogens and Vectors of Disease
2	Module Code	TROP939
4	Semester	1
6	Credit Value	30
7	Module Convenor	James La Course
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Fulfils entry requirements for MSc in Biology & Control of Parasites & Disease Vectors or MSc Molecular Biology of Parasites & Disease Vectors
17	Programme(s) for which this Module is Required	MMBPDV, MBCPDV
18	Programme(s) for which this Module is Optional	None
19	Aim of the Module	

This module aims to provide students with knowledge and critical understanding of the fundamental biology, disease, diagnosis, treatment and control of major bacterial, viral, fungal and parasitic pathogens, public health issues, Neglected Tropical Diseases (NTDs) and principle vectors of disease in tropical and low-middle income countries (LMIC).

20 Overview of the Module

Pathogens and the vectors that transmit them are the source of significant human morbidity and mortality globally, with much of this focussed within low and middle-income countries (LMICs). Many are neglected tropical diseases and, along with other public health issues such as snakebite, see billions of people infected, suffering, dying, and at risk from the range of the pathologies they cause. In this module you will learn the fundamentals of field and laboratory parasitology, microbiology and vector biology with a particular focus on those organisms affecting humans. A series of lectures and hands-on practical exercises will introduce and link the development of skills in the diagnosis, identification, and dissection of pathogens and vectors with an understanding of biology, disease epidemiology, prevention and control. The module starts with a three-day residential field centre visit in a rural area of the UK where you will be introduced to the essentials of field biology, parasitology and entomology to provide a platform of knowledge underpinning the remainder of the module and programme. The module is assessed by a two-hour MCQ examination (60%); a one-hour practical examination testing pathogen identification and diagnostic skills (20%); and a 2500-word critical review written assessment of a relevant topic in tropical disease and vector biology (20%).

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching	
1	Demonstrate in-depth knowledge of lifecycles and biology of major pathogens (bacterial, viral, fungal, parasitic), vectors and neglected tropical diseases, and apply this to understanding disease transmission/how organisms cause pathologies.	Written assessment and MCQ	Lectures, seminars, laboratory, fieldwork	
2	Discuss the nature of zoonotic relationships in the transmission of major bacterial, viral, fungal and parasitic helminths and protozoapathogens	Written assessment and MCQ	Lectures, seminars, laboratory, fieldwork	
3	Demonstrate epidemiological knowledge/understanding of major pathogens (bacterial/viral/fungal/parasitic) & vectors, neglected tropical diseases/public health issues, and critically evaluate how this informs effective control measures.	Written assessment and MCQ	Lectures, seminars, laboratory, fieldwork	
4	Use laboratory diagnostic techniques to detect and identify the major bacterial, viral, fungal and parasitic pathogens of humans	Practical examinations	Laboratory, fieldwork	
5	Demonstrate knowledge and understanding of key concepts in vector population biology, ecology and genetics and discuss their relevance to the biology and control of vectors	Written assessment and MCQ	Lectures, seminars, laboratory, fieldwork	

1	Title of Module	Management of Refugee and Displaced Populations
2	Module Code	TROP941
4	Semester	2
6	Credit Value	10
7	Module Convenor	Tim O'Dempsey
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Masters programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the Module Convenor.
17	Programme(s) for which this Module is Required	MIPHHA, MHHPM
18	Programme(s) for which this Module is Optional	MIPH, MIPHP&M, MHS
19	Aim of the Module	

This module aims to provide students with the knowledge, skills and critical understanding needed to adopt an evidencebased and reasoned approach to managing refugee and displaced populations across the spectrum from emergency relief to sustainable development.

20 Overview of the Module

In this module you will learn about managing responses to displacement; mobilising and managing human and financial resources; security and self-care of humanitarian actors; the impact of humanitarian action; and managing the transition from emergency relief to sustainable development. The module will discuss civil-military relations, post-conflict disarmament, demobilisation and reintegration, children in conflict and child separation and issues of post-conflict reconstruction. Core information will be presented in lectures and in-depth discussions will take place in seminars involving group work based around case studies and problem-solving exercises. The module is assessed by a 1.5 hour short answer examination.

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Critically analyse strategies for managing and co-ordinating refugees/IDPs in a variety of settings.	Examination	Lectures. seminars
2	Use appropriate evidence-based approaches for mobilising and managing human and financial resources.	Examination	Lectures, seminars
3	Describe security threats and make recommendations for self- care of humanitarian actors.	Examination	Lectures. seminars
4	Critically analyse the emergency vs development divide.	Examination	Lectures. seminars

1	Title of Module	Research Project
2	Module Code	TROP942
4	Semester	3
6	Credit Value	60
7	Module Convenor	Martyn Stewart
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will have completed the taught component of an LSTM Masters programme and have achieved at least 60 credits. Students with equivalent knowledge and experience may be accepted on the module at the discretion of the appropriate Director of Studies.
17	Programme(s) for which this Module is Required	MIPH, MIPHP&M, MIPHHA, MIPHSRH, MBPCDV, MMBPDV, MHHPM, MHS. MTID, MTP
18	Programme(s) for which this Module is Optional	None
19	Aim of the Module	

The aim of this module is to enable students to apply the knowledge, understanding and skills obtained during their Master's programme to a specific research question

20 Overview of the Module

In this module you will be presented with an authentic challenge of working in a scientific/medical/community research environment, in a laboratory, field-based or desk-based setting. It will develop your skills in designing, planning, conducting, interpreting and communicating a research project and allow you to experience the practicalities of setting achievable goals within realistic deadlines. You will be guided and advised by an individual supervisor with expertise in the field of study. The module is assessed by a 10 minute oral presentation (10%) and a 16,000 word research dissertation (90%).

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Design, plan and conduct a piece of original research	Assignment	Tutorials
2	Undertake a piece of original research in a responsible, safe and ethical manner and accurately record the data collected.	Presentation, assignment	Tutorials
3	Compile and analyse research data and critically interpret research findings, draw conclusions and formulate recommendations.	Assignment	Tutorials
4	Evaluate information critically and produce an effective synthesis of current research and advanced scholarship.	Assignment	Tutorials
5	Effectively communicate research findings orally and in writing	Presentation, assignment	Tutorials

1	Title of Module	Key Topics in Snakebite
2	Module Code	TROP969
4	Semester	2
6	Credit Value	10
7	Module Convenor	Rob Harrison
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Masters programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the Module Convenor
17	Programme(s) for which this Module is Required	None
18	Programme(s) for which this Module is Optional	MMBPDV, MBCPDV, MTID, MTP
19	Aim of the Module	

This module aims to provide students with in-depth knowledge and critical understanding of the key reasons why the rural poor in Africa and Asia suffer the highest rates of snakebite mortality and morbidity – and yet are so neglected by Tropical Governments and International Health Agencies.

20 Overview of the Module

In this module, you will learn about the global snakebite disease burden, the main risk groups, and the geopolitical factors that make snakebite one of the most marginalised of all the Neglected Tropical Diseases, the attempts being made to increase the global recognition of snakebite as a tropical public health concern, and research to develop of novel therapeutics to reduce snakebite mortality and morbidity. You will also discover 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 students from diverse academic backgrounds (e.g. biology, public health and medicine). The module uses lectures to provide core information, tutorials for interactive discussion of topics raised in the lectures and an intensive practical session linking methods of immunological analysis to snakebite treatment. The module is assessed by a 3000 word written assignment in which you will be asked to incorporate the results of your practical work with the taught material to write a detailed proposal, of your choice, designed to reduce the mortality and morbidity of snakebite.

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Discuss critically the major issues that categorise snakebite as a Neglected Tropical Disease	Assignment	Lectures, tutorials
2	Demonstrate detailed in-depth knowledge and understanding of the clinical treatment and epidemiology of snakebite and the basic biology of venomous snakes	Assignment	Lectures, tutorials
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	Assignment	Lectures, tutorials
4	Conduct ELISA and related laboratory assays and interpret the results in the context of knowledge gained from lectures and extra reading.	Assignment	Laboratory

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1	Title of Module	Applied Bioinformatics
2	Module Code	TROP970
4	Semester	2
6	Credit Value	10
7	Module Convenor	James La Course
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Masters programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted onto the module at the discretion of the Module Convenor. All students should be competent with molecular biology, biochemistry and genetics to the level of BSc level 1 in biological sciences. Knowledge of computing is not essential but it is important for students to have a genuine interest/motivation in using computers to answer biological questions. To aid students in assessing this requirement or to gain some insight into a typical topic undertaken in this module, we suggest students undertake the following webinar at the European Bioinformatics Institute; http://www.ebi.ac.uk/training/online/course/using-sequence-similarity-searching-tools- embl-ebi.
17	Programme(s) for which this Module is Required	None
18	Programme(s) for which this Module is Optional	MMBPDV, MBCPDV
19	Aim of the Module	

This module aims to provide students with knowledge, understanding and practical experience in using computational methods and bioinformatics approaches.

20 Overview of the Module

Although bioinformatics is a relatively new scientific discipline it is increasingly broad in its definition and application. Its generic skills and methods are now commonly seen to be applied in furthering our understanding in the broader life sciences including biology, chemistry and medicine for example. In this module you will learn how to use a variety of bioinformatics tools and interpret output data from functional genomics experiments and genomic, transcriptomic and proteomic technology platforms. At the start of the module you will be given an individual 'mystery DNA sequence' and, as the module proceeds, will learn how to analyse this sequence, discovering and unfolding the properties, functions, roles and biological importance of the gene and encoded protein. The module takes a practical-based interactive learning approach where introductory lectures and computer-based practicals in bioinformatic approaches employ a range of data from parasites and vectors of disease as examples to introduce the concepts of functional genomics technologies and analyses. For assessment of the module, you will be asked to summarise the analysis of your 'mystery DNA sequence' in a poster and present this to a judging panel in a 15 minute oral presentation (including questions).

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching	
1	Demonstrate knowledge and understanding of the types of data generated by different genomic, transcriptomic and proteomic technologies and the implications for analytical methodologies	Poster	Lectures, Tutorials, Laboratory	
2	Develop and apply bioinformatics approaches and skills to address research questions and problems of practical relevance	Poster	Lectures, Tutorials, Laboratory	
3	Use a variety of appropriate bioinformatics databases and publicly available bioinformatics software packages.	Poster	Laboratory	

1	Title of Module	Statistical Methods for Epidemiological and Clinical Research
2	Module Code	TROP971
4	Semester	2
6	Credit Value	10
7	Module Convenor	Martyn Stewart
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Masters programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the Module Convenor.
17	Programme(s) for which this Module is Required	None
18	Programme(s) for which this Module is Optional	MMBPDV, MBCPDV, MTID, MTP, MIPH, MIPHHA, MIPHSRH, MIPHP&M
19	Aim of the Module	

This module aims to provide students with knowledge and critical understanding of standard and advanced quantitative statistical methods within the context of epidemiological and clinical research in humans.

20 Overview of the Module

This module will develop your ability to design, critically analyse, interpret and report the findings of a complex research project in a health related topic. The focus is on methodologies appropriate for complex surveys and observational cohort/case-control studies, but you will also examine methodologies relevant for randomised controlled clinical trials. The module will concentrate on the practical application of different experimental design strategies and on the interpretation of the results of statistical analysis methodologies, rather than on any detailed mathematical derivations. Teaching sessions typically comprise an introductory presentation describing a specific type of study design or statistical methodology, a linked period of student-directed learning with staff available for consultation, a group discussion and a period of directed self-study based on the material covered in the session. You will be given access to a large data set that mimics the inhabitants of a fictitious community in a tropical country and will be asked to design projects to address a series of research questions relating to tropical health issues in humans. You will then select an appropriate number of individuals from the data set and analyse the data using standard statistical computer packages such as EpiInfo, SPSS and R. For the assessment, you will write up your analysis as a 2000 word report.

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
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.	Assignment	Lectures
2	Identify and execute appropriate statistical methods for summarising data collected in health surveys, epidemiological studies and interventional clinical trials, using both conventional approaches and more contemporary concepts.	Assignment	Lectures, laboratory
3	Critically evaluate and interpret the statistical analyses of data from health surveys, epidemiological studies and interventional clinical trials.	Assignment	Lectures, laboratory
4	Summarise the results of statistical analyses in a report format suitable for a non-mathematical readership.	Assignment	Lectures, laboratory

1	Title of Module	Quality Improvements in Maternal & Newborn Health
2	Module Code	TROP972
4	Semester	2
6	Credit Value	10
7	Module Convenor	Helen Smith
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Masters programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the Module Convenor.
17	Programme(s) for which this Module is Required	MIPHSRH
18	Programme(s) for which this Module is Optional	MIPH,MIPH P&M
19	Aim of the Module	

This module aims to equip students with knowledge and critical understanding of the concept of quality of care in maternal and newborn health and practical skills for improving quality and managing change in their own workplace.

20 Overview of the Module

Quality of care has become the new international initiative that arisen from the Global Strategy for Every Woman and Every Child to improve the health outcomes of mothers and babies. This module is designed for aspiring professionals working or interested in a range of environments that deliver MNH health care with a focus on operating in today's world of economic challenges whilst continually striving to enhance the quality of these services. In this module you will learn about the importance of improving the quality of MNH care and services. You will explore how to assess quality from a health system, a health care worker and a recipient of care perspective. You will also reflect critically on your own area of practice and role in quality improvement and appreciate how research and audit differ and how they are related. The module is taught by a combination of lectures delivered by external and internal experts and student-led seminars. A student-centred approach is taken using discussion and group work, supported by independent study and directed reading. The module is assessed by a 15 minute oral presentation based on directed reading (20%) and a 2000 word written assignment (80%) at the end of the module.

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Discuss the concepts, methods and frameworks for quality improvement in maternal and newborn health (MNH) care.	Assignment, Presentation	Lectures, tutorials
2	Demonstrate the ability to plan, implement, monitor and evaluate interventions to improve quality of care within their own area of practice and setting	Assignment, Presentation	Lectures, tutorials
3	Demonstrate understanding of the audit and feedback process as a tool for improving quality of maternal and newborn care	Assignment	Lectures, tutorials

1	Title of Module	Systematic Reviews for Policy and Practice
2	Module Code	TROP973
4	Semester	2
6	Credit Value	10
7	Module Convenor	Rachael Milligan
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Masters programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the Module Convenor.
17	Programme(s) for which this Module is Required	None
18	Programme(s) for which this Module is Optional	MTID, MTP, MIPH, MIPHHA, MIPHSRH, MIPHP&M, MHS
19	Aim of the Module	

This module aims to provide students with the knowledge, skills and confidence to appraise, interpret and use systematic reviews.

20 Overview of the Module

Evidence-informed policy and practice depends on research synthesis and systematic reviews, and this module will help you develop expertise in this area. You will learn how to find, read, appraise and interpret systematic reviews, and explore ways in which research evidence is used in building policy and practice. The module convenors co-ordinate the Cochrane Infectious Diseases Group, who introduced evidence-informed approaches to tropical diseases and are a large global network of researchers, public health specialists and clinicians carrying out systematic reviews. The module builds on the experience and reviews from Cochrane and other systematic reviews that are high quality and how this can be used in structured and transparent policy development. The module is full of personal experiences in policy formulation that illustrate what a messy and political process it often is!

The module is taught through interactive sessions involving discussion and group work exercises. The module is assessed by a 1.5 hour examination (20%) that will test your ability to appraise and interpret systematic reviews, and a 1500 word written assignment (80%) in which you will use up-to-date methods to create an evidence summary for a specific policy question.

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Find, appraise and interpret systematic reviews relevant to public health and primary care.	Examination	Lectures, seminars, tutorials
2	Apply approaches to use evidence to policy formulation.	Assignment	Seminars, tutorials
3	Discuss critically influences on evidence-informed practice at global, national and local levels.	Assignment	Seminars, tutorials

1	Title of Module	HIV in Resource Limited Settings
2	Module Code	TROP974
4	Semester	2
6	Credit Value	10
7	Module Convenor	Miriam Taegtmeyer
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will hold a Medical degree or have completed at least two years of undergraduate study and will normally have completed Semester 1 of an LSTM Masters programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the programme at the discretion of the Module Convenor.
17	Programme(s) for which this Module is Required	MTID
18	Programme(s) for which this Module is Optional	MTP
19	Aim of the Module	

This module aims to give a comprehensive knowledge of HIV prevention and control in different settings and populations in order to prepare clinicians to deliver HIV services and programmes.

20 Overview of the Module

This module is taught in two parts. After a brief introduction to the biology and epidemiology of HIV, you will learn about the prevention, diagnosis and treatment of HIV and HIV related diseases. Challenges of antiretroviral treatment, such as toxicities and resistance are a main focus, centred around individual patient management (adults and to a lesser extent children). The second part applies this knowledge to real life scenarios and provides a public health perspective. What are the challenges that clinicians and programme managers face when implementing national or WHO policies for treatment and prevention and how can we overcome them? Physicians and scientists with experience in HIV medicine, research and programme management in different parts of the world give lectures and facilitate interactive seminars. The WHO guidelines are the main reference text. The module is assessed by a two hour examination in which you will be asked to provide answers to a clinical scenario and write a short essay about a general aspect of HIV. You will have the opportunity to sit a mock exam to practice and receive formative feedback.

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Demonstrate knowledge and critical understanding of HIV virology and pathophysiology.	Examination	Lectures, seminars, laboratory
2	Explain the principles of diagnosis and management of HIV in adults and children.	Examination	Lectures, seminars, clinic simulation
3	Provide an overview about the natural history of HIV and the diagnosis, treatment and prevention of common opportunistic infections and co-infections.	Examination	Lectures, seminars
4	Discuss current HIV prevention strategies and be able to apply these to different populations and contexts.	Examination	Lectures, seminars
5	Critically summarise operational challenges of service delivery in resource-poor contexts.	Examination	Lectures, seminars

1	Title of Module	Medical Bacteriology
2	Module Code	TROP975
4	Semester	2
6	Credit Value	10
7	Module Convenor	Russ Dacombe
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Masters programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the Module Convenor.
17	Programme(s) for which this Module is Required	None
18	Programme(s) for which this Module is Optional	MTID, MTP
19	Aim of the Module	

This module aims to equip students with the skills and knowledge to identify common bacterial pathogens and provide a framework in which they can develop their knowledge of the diagnosis and treatment of bacterial infections.

20 Overview of the Module

Bacterial infection is a common cause of disease across the world and is responsible for high numbers of deaths in lowincome countries. Also the development of resistance by some bacteria to many effective antibiotics is rapidly becoming a global emergency, especially in hospital settings. However the correct diagnosis and treatment of many infections is made difficult in developing health systems due to a lack of availability of effective testing and treatment available in wealthier countries. This module will primarily use a highly interactive case study based approach to promote discussion on topics including pyrexia of unknown origin, sepsis and meningitis; respiratory tract infections; diarrhoeal disease; genital and urinary tract infections; and neonatal Infections. You will have an opportunity to discuss the results of cases you have investigated both clinically and in the laboratory with experienced subject practitioners from centres of excellence across the United Kingdom. Knowledge you have gained from these sessions will be examined in a one hour multiple choice question examination (40%). You will also be required to write a 1500 word essay (60%) on a currently relevant topic in medical bacteriology.

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Use the outputs from laboratory tests to classify bacteria in the medical microbiology laboratory	Examination	Laboratory
2	Review critically laboratory and clinical information to identify the common bacterial pathogens involved in human disease	Examination	Laboratory
3	Relate bacterial structure and function to antimicrobial activity and resistance mechanisms	Examination; Assignment	Lectures, tutorials
4	Demonstrate knowledge and understanding of hospital infection control procedures and practices	Examination; Assignment	Lectures, tutorials

1	Title of Module	Health Promotion
2	Module Code	TROP976
4	Semester	2
6	Credit Value	10
7	Module Convenor	Mary Lyons
12	Pre-Requisite Modules	None
13	Other Pre-Requisites	Students will normally have completed Semester 1 of an LSTM Master's programme. Students with an academic background equivalent to that normally acquired during Semester 1 will be accepted on the module at the discretion of the module convenor.
17	Programme(s) for which this Module is Required	MIPH
18	Programme(s) for which this Module is Optional	MIPHHA,MIPHPM, MTID, MTP, MHS, MHHPM
19	Aim of the Module	

This module aims to provide students with knowledge and a critical understanding of the theory, principles and practices of health promotion.

20 Overview of the Module

The world is in the middle of an epidemiological transition. This creates a need to develop health in all policies and to reorient services towards the promotion of health. The knowledge and skills to do this effectively is in short supply. Through this module you will gain an in-depth perspective on the application of health promotion strategy and policy to reduce the impact of non-communicable diseases in a low-income setting. Topics covered include the historical development of health promotion; the prerequisites for health as a resource for living; the concept of 'healthy public policy' based on the wider determinants of health; the evolution of health promotion theory and practice from early behaviour change to social marketing and nudge theory; the importance of independence and advocacy; the prioritisation of need and tensions linked to resource allocation; concepts of risk and risk communication; and monitoring and evaluation of health promotion. This module will use interactive lectures to introduce a topic and in-depth learning will be developed during seminars and group exercises. For the assessment, you will be asked to select a low-income setting and undertake individual research to write a 2000 word critical review of a behaviour change strategy or policy.

23 Achievement of Learning Outcomes

No.	Learning Outcome	Mode of Assessment	Method of Teaching
1	Critically evaluate theories and models of health promotion and behaviour change and their application at individual and community levels	Assignment	Lectures, seminars, group work
2	Critically review the concept of health risk and risk communication in public health practice.	Assignment	Lectures, seminars, group work
3	Critically evaluate health promotion strategies, policies and practices designed to reduce the health burden from non-communicable diseases in a low-income country setting.	Assignment	Lectures, seminars, group work