Programme Handbook



MSc/Dip/Cert
in Tropical
and
Infectious
Diseases
2018/19

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# **Key Programme Contacts**

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### Introduction

This handbook provides you with specific information about the MSc in Tropical and Infectious Diseases. You will also be provided with a general handbook which covers issues common to all Masters students studying at the School. It is most important that you are aware of the information provided in these handbooks.

The MSc in Tropical and Infectious Diseases places emphasis on the scientific evidence for diagnosis, management and control of the most prevalent diseases in developing countries and provides new insights into working in a very challenging but rewarding area of medicine. Alumni from this course have become well-established clinicians, pursued international careers (e.g. WHO and MSF) or have become leading researchers in their field.

The programme has 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 and addresses both the curative and preventive strategies available to deal with these problems.

The MTID is an integrated programme of recommended and optional modules designed to address knowledge and comprehension of these common disorders from both a clinical and community perspective. A primary aim is to provide doctors with previous experience in high burden diseases the necessary training in research methods required to address these problems. The programme will enable doctors to practice with improved knowledge and skills at both a clinical and community level. It is therefore highly relevant for medical officers working within an international organisation. In addition, the programme will enable students to comprehend and conduct health-related research through a supervised project which can include a three month period of applied research in an overseas location.

The Liverpool School of Tropical Medicine has an international reputation in training in tropical and infectious diseases. The Masters Programme in Tropical and Infectious Diseases, has been taught since 1983 and approximately 300 doctors have successfully completed the course.

# **Programme Aims and Learning Outcomes**

#### **Outline**

This programme develops research skills that are applicable to a wide range of problems in clinical and epidemiological settings. Emphasis is also given to the scientific and empiric evidence for diagnosis, management and control of the most prevalent diseases in developing countries, with particular reference to high burden diseases such as tuberculosis, HIV and malaria, from a public health and clinical perspective. However, the programme does not include a clinical attachment and teaching at the bedside. Following a taught component, participants complete a dissertation including a period of applied research either overseas or in Liverpool. The programme is offered within a dynamic research-led environment and its content is informed by the cutting-edge research activities of the academic staff. It is designed to enable the professional development of the student, to be relevant to students from both the UK and overseas and to promote critical and participatory approaches to learning. These skills will be essential to take on leadership roles in the future.

#### **Aims**

The curriculum has been informed by current national and international priorities and policies in the field of tropical and infectious diseases. The programme aims to:

- Provide doctors with previous experience in high burden diseases with research skills relevant to tropical and infectious diseases in low income countries
- Develop students' knowledge and comprehension of the preventive and curative management strategies that promote health and well-being in tropical countries
- Enable students 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
- Facilitate high quality learning that is informed by critical analysis of current research
- Develop independent and reflective approaches to study that will enable graduates to continue to learn in the future

### **Subject-based Learning Outcomes**

This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are offered.

#### A. Knowledge and Understanding

Upon successful completion of the programme a student should have developed and be able to demonstrate:

- A1. A systematic understanding and critical awareness of current issues and priorities in the field of tropical and infectious diseases
- A2. Knowledge of a range of relevant research methods and understanding of how the methods can be applied to address particular research questions
- A3. Ability to apply statistical knowledge and understanding to design a research study and to analyse and critically interpret data.

A4. Appropriate skills related to the diagnosis, management and control of tropical parasitic, bacterial, viral and fungal infections of children and adults in a variety of regional and resource settings

# **B.** Cognitive skills

Upon successful completion of the programme a student should be able to:

- B1. Analyse, synthesise and evaluate information from a variety of sources in a critical manner
- B2. Apply subject knowledge and understanding in a variety of contexts to analyse and reach evidence-based conclusions on complex situations, problems and opportunities
- B3. Apply the principles and values of ethical practice with regard to the design and practice of research studies, consent and confidentiality in the collection and presentation of data, and publication
- B4. Demonstrate creativity, innovation and originality in the application of knowledge

# C. Practical/professional Skills

Upon successful completion of the programme a student should be able to:

- C1. Formulate a research question, devise an appropriate research strategy and take a systematic approach to project planning and management
- C2. Undertake research investigations in a responsible, safe and ethical manner and accurately record the data collected
- C3. Effectively manage, analyse and report data collected in the laboratory or field

### **Programme Structure**

The programme is offered within a dynamic research-led environment and its content is informed by the cutting-edge research activities of the academic staff. It is designed to develop self-directed learning, to enable the professional development of the student and to be relevant to students from both the UK and overseas.

The programme comprises an introductory induction week, followed by taught modules totalling 120 credits and a 60-credit dissertation (Table 1). A 10 credit module (5 ECTS credits) represents 100 hours of student learning activity including assessment and self-directed study.

Required modules are necessary to achieve the programme learning outcomes and must be taken by all students following the programme. The recommended optional modules listed have been identified as most suitable for contributing to the attainment of the programme learning outcomes. However, depending on their background or interests, students may opt to replace these optional modules with modules offered as part of other LSTM MSc programmes, subject to the agreement of the Director of Studies for the programme (see Table 2). Before choosing any module, students should get familiar with its aims and learning outcomes.

Table 1: Modular Structure of the MTID programme (Required modules are shown in bold)

w/b	Week			Mon	Tues	Wed	Thurs	Fri (am) Fri (p	m)	
10/9	Induction			Induction +				, (S)   · · · (P		
17/9	1	-			5 4 4 6 10 1	10 110 010				
24/9	2									
01/10	3									
08/10	4	_		TROP	034-	TROP 93	8: Current			
15/10	5	its)		Research			Challenges			
22/10	6	ed		in Intern			opical	Research		
29/10	7	ວັ		Hea			licine	Methods		
05/11	8	9		(30 cr			redits)	motrious		
12/11	9	7		(00 0.1	,	(00 0.	· Cuito,			
19/11	10	ter								
26/11	11	es								
03/12	12	Semester 1(60 credits)								
10/12	13	Š			R	evision + As	sessments	1		
17/12	10									
24/12						Christmas	Holiday			
01/01*	14				R	evision + A	sessments			
07/01	15			TROP9				Child Health (10		
14/01	16							ment (10 credits)		
, .			_					ductive health (1		
			쥿		- · · · · · · · · · · · · · · · · · · ·	credi	•	(1	•	
21/01	17		Block 1	TD050741	IIV/ ! D			(40 114 )		
28/01	18		_	TROP974 F	HIV in Reso	ource Limit	ed Settings	s (10 credits)		
04/02	19	ts)		Revision + Assessments						
11/02	20		(S)		TROP973	Systematic	Reviews fo	r Policy &	OD TDOD70	
18/02	21			2		Practice (1			OR TROP739	
25/02	22	Ē	Block	TROP976	Health Pro		credits) or	Immunology o		
04/03	23	credits)	層		06 Develop			Tropical Diseas		
		09)			rol Program			(20 credits)		
11/03	24	2 (6			Re	evision + As	sessments			
18/03	25	) L		TROP 97	71: Statistic	al Methods	for Epidemi	ological & Clinica	 al	
25/03	26	ester					credits) OR		~1	
25/00		шe	_	TRO				0 credits) OR		
		Sem	쏬				teriology (10			
		٠,	Block 3				37 (**	,		
01/04	27		_ ω	TROP 97	71: Statistic	al Methods	for Epidemi	ological & Clinica	 اد	
08/04	28						credits) OR			
					TROP 7	76 Child Nu	itrition (10 ci	redits)		
15/04*	29				Re	evision + As	sessments			
22/04*	30				EA	STER BRE	AK 1 WEEK	(		
29/04	31				Preparation	on for Rese	arch Preser	ntations		
06/05**	32						esentations			
Weeks 33-46										
(13/5/19**- <b>2</b>		ŝ	Pagagrah Brainet							
12/8/19)		nes 0 dits		Research Project TROP942						
Dissertation										
hand-in 15/08/19										
						Deferred	Holiday			

<sup>\*</sup> School closed for New Year BH (1/1/19) & Easter Bank Holidays 19/4/19 and 22/4/19
\*\* School closed for May Bank Holiday 6/5/19 & 27/5/19

<u>Table 2</u>: Optional modules offered in Semester 2 for LSTM MSc programmes. Modules recommended for students on MTID are shaded. Other modules can be taken by MTID students subject to the approval of the Director of Studies

Wks										
15-16	14/01 07/01	Organisation & Management TROP708	Complex Humanitarian	Key Concepts in Sexual & Reproductive Health TROP923	Quality Improvement in Global Child Health TROP910	Parasite Epidemiology	Key Aspects in Molecular & Cellular			
17-18	21/01	HR Planning & Management	Emergencies TROP807	Emergencies	Maternal & Newborn Health		and Control TROP719	Biology of Tropical Diseases and Vectors TROP775	HIV in Resource Limited Settings	
	28/01	TROP915		TROP924				TROP974		
19	04/02			Readin	g week/Assessme	nts				
21	11/02		Systematic Reviews for Policy and		Global Climate Change &	ange &	Immunology of Tropical Diseases			
20	20-21		Practice TROP973		Health TROP927	Vector Population Biology &				
:-23		Health Promotion	Development of a Disease Control	Reproductive Sexual & Adolescent		Control TROP741	TROP739			
22		TROP976	Programme TROP706	Health TROP926						
24	11/03- 15/03	Reading week/Assessments								
25-26	18/03	Management of Refugee and Displaced	Key Topics in Snakebite	Quality Improvement in Maternal & Newborn	Statistical Methods for Epidemiological & Clinical Research TROP971*	Medical Bacteriology Trop 975				
	25/03	Populations TROP941	TROP969	Health TROP972						
28	01/04		Health in Applied	Media, Policy & Advocacy in Humanitarian Action TROP809	Statistical Methods for Epidemiological & Clinical Research TROP971*	Humanitarian Operations TROP901	Child Nutrition TROP776			
27-28	8/04	Emergencies TROP900	Bioinformatics TROP970				Child Nutrition	1 IROP776		
	15/04	Revision + Assessments								
29-32	22/04	EASTER BREAK 1 WEEK								
26	29/04	Preparation for Research Presentations								
	06/05	Research Presentations								

<sup>\*</sup>TROP971 - module runs twice - students should only choose once

# **Assessment Schedule**

Module	Timing	Assessment Strategy	% of module mark			
		Semester 1				
TROP 934 (R)	In module	1.5 hour exam (multiple choice)				
	End of module	1500 word critical reflection of group qualitative research study 2500 word research proposal (minimum mandatory mark 40%)				
TROP 938 (R)	In module	2.5 hour exam (short answer)				
	End of module	2.5 hour exam (short answer) 30 minute oral examination				
		Semester 2 Block 1				
TROP 910 (O)	End of module	2500 word written assignment	100			
TROP 708 (O)	End of module	3000 word critical analysis of a case study	100			
TROP 923 (O)	End of module	15 minute oral presentation 60 question MCQ exam	40 60			
TROP 974 (R)	End of module	2 hour exam (short answer and essay)	100			
		Semester 2 Block 2	•			
TROP 973 (O)	End of module	Written assignment (completion of pre-prepared form 1.5 hour exam (extended matching set questions)	80 20			
TROP 739 (O)	End of module	2 hour exam (essay) 3000 word laboratory report	50 50			
TROP 976 (O)	End of module	2000 word written report	100			
TROP 706 (O)	End of module	2500 word written assignment	100			
		Semester 2 Block 3				
TROP 975 (O)	End of module	1500 word written assignment 1 hour exam (multiple choice)	60 40			
TROP969 (O)	End of module	3000 word assignment	100			
TROP776 (O)	End of module	Poster Presentation 1 hour written exam (short answer questions)	50 50			
TROP 971 (O)	End of module	2000 word report on analysis of data set	100			
	•	Semester 3	•			
TDOD 040 (D)	In module	10 minute oral presentation of research proposal.	10			
TROP 942 (R)	End of module	le 16,000 word dissertation				

# **Important Dates**

MSc Project choices deadline - 18 October 2018

Deadline for Semester 2 module choices - 31 October 2018

Allocating/defining dissertation topics: September-November 2018

Developing proposal for Dissertation Project: September 2018-January 2019

Submission to Masters Ethics Committee (if required): February 2019

Fieldwork: April/May – June/July 2019 Dissertation writing: June – August 2019

Dissertation Submission deadline: 15 August 2019

Board of Examiners meeting: October 2019

Release of results: Following Board of Examiners meeting

Graduation Ceremonies: December 2019

# **Research Project**

Many students carry out a fieldwork-based dissertation project overseas. Others opt to conduct fieldwork in the UK or to carry out another type of study (using literature or data already collected) that does not involve travelling abroad. Whilst overseas, students are supervised by a designated person in the host country, as well as by a member of LSTM staff. All projects have the key aims of developing students' skills in formulating a research question, designing and implementing a research project and critically interpreting and presenting the findings. Further information regarding the dissertation will be provided elsewhere.

Where appropriate, research proposals must be approved by the MSc Ethics Review Panel of the Liverpool School of Tropical Medicine and by in-country Ethics boards or committees. Further information and guidance on preparing a submission to the Ethics Committee will be provided during TROP934/936.

#### **Prizes**

### **Glen Williams Prize**

The Glen Williams Prize is awarded to the candidate with the highest overall mark in the examinations.

#### **David Smith Memorial Prize**

The David Smith Memorial Prize is awarded to a student from a developing country who has contributed most to the collective and team work of students on his/her programme. It is open to students on any programme.

David Smith was a member of staff of the School for many years and was head of the Tropical Medicine Division in the School at the time of his tragically early death. A former Director of the UK Medical Research Council's unit in Kisumu, Kenya, he was also at one time head of the vector-borne disease division of the Kenyan Ministry of Health. He worked extensively in Africa on the control of tropical diseases, including malaria, sleeping sickness and haemorrhagic viral infections. In addition he had extensive knowledge of South America and Asia and worked for a year on secondment to the British Government's overseas development ministry, assisting them in developing more effective policies in health and disease control. He played a key role in the establishment of the Malaria Consortium as a joint operation of the Liverpool and London Schools.

# **Selected LSTM Teaching Staff**

Department of Clinical Sciences

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Prof Stephen Allen Paediatrics & Int Health Stephen.allen@lstmed.ac.uk

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Senior Clinical Lecturer

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gregory.harper@lstmed.ac.uk

Education

Dr Martyn Stewart Senior Lecturer in Research <u>martyn.stewart@lstmed.ac.uk</u>

Methods

**Recommended Texts** 

Beeching, N & Gill G. 2014. Lecture Notes in Tropical Medicine. 7<sup>th</sup> Edition. Wiley Blackwell Publishing (also available as eBook)

Davidson R, Brent A, Seale A. 2014. Oxford Handbook of Tropical Medicine. 4<sup>th</sup> Edition. Oxford University Press