



MODULE SPECIFICATION

Academic Year (student cohort covered by specification)	2023-2024
Module Code	3195
Module Title	Malaria: from science to policy and practice
Module Organiser(s)	Dr Harparkash Kaur and Dr Mojca Kristan
Faculty	Infectious & Tropical Diseases
FHEQ Level	Level 7
Credit Value	CATS: 15 ECTS: 7.5
HECoS Code	100265:101317 (1:1)
Term of Delivery	Term 2
Mode of Delivery	For 2023-2024 this module will be delivered predominantly face to face, using online delivery for any external speakers only. Where specific teaching methods (lectures, seminars, discussion groups) are noted in this module specification, these will be delivered live using either face to face sessions or an online platform at LSHTM. There will be a combination of live and interactive activities (synchronous learning) as well as recorded or self-directed study (asynchronous learning).
Mode of Study	Full-time
Language of Study	English
Pre-Requisites	There are no formal pre-requisites, but it is assumed that students will have some familiarity with basic epidemiology and with malaria from the point of view of their own discipline.
Accreditation by Professional Statutory and Regulatory Body	None
Module Cap (Indicative number of students)	30 (numbers may be capped due to limitations in capacity of the lecture rooms or staffing)
Target Audience	This module emphasises epidemiological, social and organisational matters, and addresses issues of vector control evaluation as well as malaria diagnosis and treatment. Our target audiences are the malaria control programme managers, implementers, policy makers and



	researchers of the future. All those with an interest in understanding the epidemiology and control of malaria are very welcome.
Module Description	<p>This module gives an overview of malaria transmission, epidemiology, disease burden and control, including operational challenges and threats to efficacy of control and treatment measures.</p> <p>Examples of topics covered will be malaria and co-infections, malaria in pregnancy, economic aspects and financing, vaccines, drug and insecticide resistance, quality of measures of malaria control and treatment, malaria in emergencies and malaria elimination.</p>
Duration	5 weeks at 2.5 days per week
Timetabling slot	Slot D1
Last Revised (e.g. year changes approved)	May 2023

Programme(s)	Status
This module is linked to the following programme(s)	
MSc Control of Infectious Diseases	Recommended Option
MSc Medical Entomology for Disease Control	Recommended Option
MSc Medical Parasitology	Recommended Option
MSc Public Health (Environment & Health)	Recommended Option
MSc Public Health for Development	Recommended Option
MSc Tropical Medicine & International Health	Recommended Option

Module Aim and Intended Learning Outcomes

Overall aim of the module
<p>The overall module aim is to:</p> <ul style="list-style-type: none"> give students a deeper view of malaria as a public health problem, by building connections between a wide variety of aspects and viewpoints, by critical appraisal of the control tools available and how they might be applied, and by considering some current topics in depth. <p>Cross-cutting skills learnt in this module are applicable not only to malaria but other infectious diseases as well.</p>



Module Intended Learning Outcomes

Upon successful completion of the module a student will be able to:

1. Discuss the environmental, biological, political and social roots of malaria as a public health problem;
2. Describe cutting edge interventions available or under development for malaria control;
3. Identify and apply appropriate control measures according to the malaria epidemiology of a given setting;
4. Synthesise the cross-cutting principles of the module and apply to the design of their own control programme, intervention trial or elimination strategy proposal.

Indicative Syllabus

Session Content

The module is expected to cover the following topics:

- Epidemiology of malaria, including the determinants of transmission intensity and burden of disease (vector, host, parasite, environment);
- Control measures including sessions on: State-of-the-art Vector control; Diagnosis & treatment; Malaria in pregnancy; Intermittent preventive treatment; Vaccines; Surveillance; Malaria Elimination;
- Current topics of interest, including sessions on: Drug resistance; Insecticide resistance, Quality assurance of control tools (drugs, insecticide treated nets, insecticides for indoor residual spraying); Malaria control in complex emergency settings; Modelling to inform malaria control and elimination;
- Health system and policy considerations, including sessions on: The global perspective and policy environment; Delivery systems for malaria interventions; Implementing policy change; Economic evaluation and financing of malaria control;
- Designing intervention trials;
- Designing disease control and elimination programmes;
- Monitoring the impact of control, including surveillance, biological monitoring, and programme monitoring and evaluation (M&E);
- Other topics covered include: Human behaviour and malaria; Vivax malaria; HIV and malaria interactions.



Teaching and Learning

Notional Learning Hours

Type of Learning Time	Number of Hours	Expressed as Percentage (%)
Contact time	46	31
Directed self-study	23	15
Self-directed learning	30	20
Assessment, review and revision	51	34
Total	150	100

Student contact time refers to the tutor-mediated time allocated to teaching, provision of guidance and feedback to students. This time includes activities that take place in face-to-face contexts such as lectures, seminars, demonstrations, tutorials, supervised laboratory workshops, practical classes, project supervision as well as where tutors are available for one-to-one discussions and interaction by email. Student contact time also includes tutor-mediated activities that take place in online environments, which may be synchronous (using real-time digital tools such as Zoom or Blackboard Collaborate Ultra) or asynchronous (using digital tools such as tutor-moderated discussion forums or blogs often delivered through the School's virtual learning environment, Moodle).

The division of notional learning hours listed above is indicative and is designed to inform students as to the relative split between interactive (online or on-campus) and self-directed study.

Teaching and Learning Strategy

Most of the classroom work takes place in the first three weeks, with the assessment exercises occupying the remainder of the module.

Assessment

Assessment Strategy

The assessment for this module has been designed to measure student learning against the module intended learning outcomes (ILOs) as listed above. Formative assessment methods may be used to measure students' progress. The grade for summative assessment(s) only will go towards the overall award GPA.

The assessment for this module will be submitted online, via Moodle.

The assessment is an individual written project report of strictly 2000 words. The project is developed in an evolutionary fashion, through discussions with an assigned tutor with



Assessment Strategy

relevant expertise in the topic that the student selects to work on.. The assessment is based around designing interventions to address typical malaria challenges in an endemic country, chosen by the student from a set of malaria endemic country settings. For the report, students are expected to develop a proposal within one of the following areas:

- **Malaria Control Programme:** In this option, students make a case study of a particular location and design one element of a national malaria control plan for that context;
- **Intervention Trial:** In this option, students select a particular control problem, method or context and design a field trial with specific research objectives to evaluate a novel intervention;
- **Elimination Plan:** In this option students develop an outline plan to design an intensive malaria control programme to eliminate malaria within a selected location.

Summative Assessment

Assessment Type	Assessment Length (i.e. Word Count, Length of presentation in minutes)	Weighting (%)	Intended Module Learning Outcomes Tested
Coursework	Strictly 2000 words	100	1 - 4

Resitting assessment

Resits will accord with the LSHTM's [Resits Policy](#)

The Resit assessment will be the same [selected](#) assessment type [with the same tutor](#) as the first attempt (see previous table). The task will be to revise and resubmit the original proposal assessment addressing the markers' comments.



Resources

Indicative reading list

- *Malaria. Principles and Practice of Malariology, vols 1 & 2*, 1988, Ed. Wernsdorfer WH and MacGregor I.
- *Essential Malariology (4th Edition)*, 2002, Warrell DA and Gilles HM.
- *Biodiversity of Malaria in the World*, 2008, Manguin S, Carnevale P, Mouchet J, Coosemans M, Julvez J, Richard-Lenoble D and Sircoulon J.
- Useful general reading for the module includes WHO Global Malaria Programme (GMP) documents, including the World Malaria Report Guidelines for malaria (<https://www.who.int/teams/global-malaria-programme>) and other position statements and policy documents on the WHO and RBM (<https://endmalaria.org/>) websites.
- Another useful resource is the U.S. President's Malaria Initiative (PMI)'s Resources website (<https://www.pmi.gov/resources/>).
- Also see MESA and its Resource Hub (<https://mesamalaria.org/resource-hub>).

Teaching for Disabilities and Learning Differences

The module-specific site on Moodle gives students access to lecture notes and copies of the slides used during the lecture. Where appropriate, lectures are recorded and made available on Moodle. All materials posted on Moodle, including computer-based sessions, have been made accessible where possible.

LSHTM Moodle is accessible to the widest possible audience, regardless of specific needs or disabilities. More detail can be found in the [Moodle Accessibility Statement](#) which can also be found within the footer of the Moodle pages. All students have access to "SensusAccess" software which allows conversion of files into alternative formats.

Student Support Services can arrange learning or assessment adjustments for students where needed. Details and how to request support can be found on the [LSHTM Disability Support pages](#).