MODULE SPECIFICATION

Academic Year (student cohort covered by specification)	2023-24
Module Code	3125
Module Title	Introduction to Disease Agents & Their Control
Module Organiser(s)	Professor Michael A. Miles & co-organiser Dr Tapan Bhattacharyya
Faculty	Infectious & Tropical Diseases
FHEQ Level	Level 7
Credit Value	**CATS:** 25 **ECTS:** 12.5
HECoS Code	100265:100345 (1:1)
Term of Delivery	Term 1
Mode of Delivery	For 2023-24 this module will be delivered by predominantly face-to-face teaching modes. Where specific teaching methods (lectures, seminars, discussion groups) are noted in this module specification these will be delivered by predominantly face-to-face sessions. There will be a combination of live and interactive activities (synchronous learning) as well as recorded or self-directed study (asynchronous learning), plus face-to-face laboratory classes.
Mode of Study	Full-time
Language of Study	English
Pre-Requisites	A class II degree in a biological, biomedical or public health orientated topic or some equivalent experience are desirable but not essential.
Accreditation by Professional Statutory and Regulatory Body	None
Module Cap (Indicative number of students)	50 to 60 students; up to approximately 75 for sessions when the MSc One Health: Infectious Disease Emergence & Control students join the module on Fridays.
Target Audience	This module is a compulsory module for all students on the MSc Control of Infectious Diseases (CID).

Module Description	The module provides a multidisciplinary framework for understanding the principles of interventions against infectious diseases. It specifically provides knowledge and understanding of important disease agents in the context of their routes of transmission and the potential intervention strategies, and considers some of the reasons for the success, partial success and failure of control programmes. Keywords: communicable diseases; infectious diseases, disease control; disease prevention and control; tropical medicine; outbreaks; transmission cycles; zoonotic diseases; epidemiology; health in emergencies; poverty; health economics; pathogens; disease vectors; biomedical sciences; parasitic; malaria; TB; HIV/AIDS; sexual and reproductive health; behavioural aspects; bacterial; viral; worm infections; food; water; sanitation; statistics; research; multidisciplinary; international; global; rural urban; teaching; communication; health policy; health systems; vulnerable groups.
Duration	10 weeks at 2.5 days per week
Timetabling slot	Term 1
Last Revised (e.g. year changes approved)	June 2023

Programme(s) This module is linked to the following programme(s)	**Status**
MSc Control of Infectious Diseases	Compulsory
MSc One Health: ecosystems, humans and animals	Compulsory for students to attend advised sessions, usually on Fridays as part of their MSc One Health: Infectious Disease Emergence & Control.

Module Aim and Intended Learning Outcomes (ILO)

Overall aim of the module
The overall module aim is to: • provide a multidisciplinary framework for understanding the principles of interventions against infectious diseases (in conjunction with other core term 1 components for MSc CID). This module specifically provides knowledge and understanding of important disease agents in the context of their routes of transmission and the potential intervention strategies, and considers some of the reasons for the success, partial success and failure of control programmes.

Module Intended Learning Outcomes
Upon successful completion of the module a student will be able to: 1. Describe the importance of principal major pathogens in the different regions of the world; 2. Outline the practicalities and limitations of diagnostic techniques for these pathogens; 3. Apply knowledge of the life cycles of a range of pathogens to their transmission routes and pathogenesis, and to the selection of appropriate interventions; 4. Appreciate the inter-relationships between clinical skills, laboratory science, epidemiology, and health policy in the selection of interventions; 5. Understand the principles of outbreak investigation/rapid response; 6. Assess the implementation of interventions and understand reasons for their success and failure; 7. Select appropriate interventions, taking account of the diverse social, political and economic contexts in which health systems operate.

Indicative Syllabus

Session Content
The module is expected to cover the following topics: • The life cycle and characteristics of major infectious disease agents according to their principal transmission routes, namely: respiratory (proximity) diseases; contact diseases; water-borne; food-borne; sexually transmitted; blood-borne; congenital and perinatal; arthropod vector-borne; opportunistic, or emergent infections. This will include examples of laboratory methods for identifying disease agents. • The principal intervention strategies used to combat such infectious diseases, namely: case management, vaccination, treatment and chemoprophylaxis, the many means of preventing exposure, from individual protection to environmental management, and the principles of outbreak investigation/rapid response.

Session Content
• Analysis of factors contributing to the success or failure of systems of control and intervention strategies will be considered including: fundamental scientific difficulties with implementation procedures, managing people and resources; contextual problems associated with finance and interagency relationships; social and political issues.

Teaching and Learning

Notional Learning Hours

Type of Learning Time	Number of Hours	Expressed as Percentage (%)
Contact time	120	48%
Directed self-study	60	24%
Self-directed learning	20	8%
Assessment, review and revision	50	20%
Total	**250**	**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.

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

Teaching and Learning Strategy
Teaching methods will include online lectures, practical demonstrations, group discussions, debates and problem-solving exercises that will build on the previous experience and future career intentions of the students.

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. During Week 0 of Term 2, students will sit an in-person written assessment, in which 2 of 6 questions will be answered, each of 1500 word maximum.

Summative Assessment

Assessment Type	**Assessment Length (i.e. Word Count, Length of presentation in minutes)**	**Weighting** (%)	**Intended Module Learning Outcomes Tested**
In-person written assessment	Maximum of 1500 words for each essay.	100	1-7

Resitting assessment
Resits will accord with the LSHTM's Resits Policy The Resit assessment will be the same assessment type as the first attempt (see previous table).

Resources

Indicative reading list
Presenters of each component of the module are requested to provide specific, appropriately diverse, reading lists.

Teaching for Disabilities and Learning Differences

The module-specific site on Moodle provides students with access to lecture notes and copies of the slides used during the lecture prior to the lecture (in pdf format). All lectures are recorded and made available on Moodle as quickly as possible. All materials posted up on Moodle areas, including computer-based sessions, have been made accessible where possible.

Presenters may also provide on Moodle summary transcripts for their lectures.

The LSHTM Moodle has been made accessible to the widest possible audience, using a VLE that allows for up to 300% zoom, permits navigation via keyboard and use of speech recognition software, and that allows listening through a screen reader. All students have access to "SensusAccess" software which allows conversion of files into alternative formats.

For students who require learning or assessment adjustments and support this can be arranged through the Student Support Services – details and how to request support can be found on the LSHTM Disability Support pages.