MODULE SPECIFICATION

Academic Year (student cohort covered by specification)	2023-24
Module Code	3434
Module Title	Water, Sanitation and Hygiene, and Health
Module Organiser(s)	Dr. Laura Braun, Oliver Cumming & Dr. Robert Dreibelbis
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 2023-24 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).
Mode of Study	Full-time
Language of Study	English
Pre-Requisites	None
Accreditation by Professional Statutory and Regulatory Body	None
Module Cap (Indicative number of students)	25 (numbers may be capped due to limitation in facilities or staffing)
Target Audience	This module is intended for those who wish to understand how water, sanitation and hygiene contribute to public health, with a particular focus on low- and middle-income country (LMIC) settings. This module is also intended to provide students with training to support a future career in WASH programming, research, or evaluation through lectures, practicals, site visits, and guest lecturers.

Module Description	This module covers the links between water, sanitation, and hygiene (WASH) and health with a focus on low- and middle-income countries.
Duration	5 weeks at 2.5 days per week
Timetabling slot	Slot D1
Last Revised (e.g. year changes approved)	July 2022

Programme(s) This module is linked to the following programme(s)	**Status**
MSc Control of Infectious Diseases	Recommended Option
MSc Public Health (Environment & Health)	Recommended Option
MSc Public Health for Development	Recommended Option

Module Aim and Intended Learning Outcomes

Overall aim of the module

The overall module aim is to:

- enable students to understand and apply the principles and practices that should underlie water, sanitation and hygiene (WASH) programmes, in order to maximise health and social benefits. The module also aims to empower students to contribute usefully to discussions with other professionals regarding health impacts, technology choice and policy aspects of WASH and other environmental interventions affecting health in low- and middle-income countries.

Module Intended Learning Outcomes

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

1. understand how water, sanitation, hygiene (WASH) interventions impact public health and their relevance in low- and middle-income country (LMIC) settings;
2. assess the strengths and limitations of the current evidence base for the effectiveness of specific WASH interventions on different health outcomes;
3. have a critical appreciation of the importance of behaviour change strategies tailored to target population and target behaviours;
4. apply this understanding to the design, evaluation and critique of WASH research and programmes.

Indicative Syllabus

Session Content
The module is expected to cover the following topics: • WASH and health; classification of diseases, case studies, health impact measurement and its alternatives; • Water supply and health; technology options; minimum water requirements; water use behaviours • Water quality and health; microbiological and chemical quality standards, household water treatment options; • Sanitation and health; excreta-related infections, technology options, implementation issues, demand creation; • Hygiene and health; behaviour assessment and hygiene promotion; • Non-health benefits of WASH; time and cost savings, educational benefits, status, convenience. • WASH and equity; how different populations are affected by adverse WASH conditions with a focus on gender and dis/ability; • WASH policy and financing; • WASH in emergency settings; • WASH in schools and health care facilities; • WASH and planetary health; • WASH behaviour change theories and practice. • Water sampling and water quality testing in the laboratory

Teaching and Learning

Notional Learning Hours

Type of Learning Time	Number of Hours	Expressed as Percentage (%)
Contact time	68	45
Directed self-study	0	0
Self-directed learning	42	28
Assessment, review and revision	40	27
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.

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
Knowledge and understanding of the basic material will be derived from lectures and assigned reading. The ability to apply this knowledge in a real context will be developed through discussion of case studies and exercises with peers and experts in the WASH sector during lectures, seminars and group work, as well as through completion of assessed assignments. There will be ample room for discussion and participation.

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 online. Assessment consists of two parts: (1) *Situation analysis* of WASH access and equity in a selected country (group assignment) (2) A *proposal* for an appropriate WASH intervention and evaluation strategy for the context described in the situation analysis (individual assignment) For the *situation analysis*, students will be organized into groups of four and each group requires to submit a brief report (2 pages) and make a short (10 min) presentation to the class. For the *proposal*, individual students will prepare a written proposal of maximum 2000 words, excluding references, figures and tables. The situation analysis will contribute 25% of the total mark for the module; the proposal will contribute 75% of the total mark for the module. All assessments will be graded by the MOs and written feedback provided.

Summative Assessment

Assessment Type	**Assessment Length (i.e. Word Count, Length of presentation in minutes)**	**Weighting** (%)	**Intended Module Learning Outcomes Tested**
Group Presentation (*Situation analysis*)	10-minute oral presentation of situation analysis + 2 page statistical annex	25	1
Paper 1 (*Proposal)*	Maximum 2000 words, excluding references, figures and tables	75	2 - 4

Resitting assessment
Resits will accord with the LSHTM's Resits Policy For individual students resitting the assessment there will be an approved alternative assessment as detailed below.

Assessment being replaced	**Approved Alternative Assessment Type**	**Approved Alternative Assessment Length** (i.e. Word Count, Length of presentation in minutes)
Coursework and Presentation	Timed Test (in-module test e.g. MCQ)	The task will be to complete a 90-minute exam with essay style questions

Resources

Indicative reading list
Students will be provided with an electronic access (via Leganto) to recommended and supportive reading material. We recommend the book Environmental Health Engineering in the Tropics by Cairncross and Feachem (2019) as an additional resource.

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.