



## MODULE SPECIFICATION

<b>Academic Year (student cohort covered by specification)</b>	2021-22
<b>Module Code</b>	3434
<b>Module Title</b>	Water, Sanitation and Hygiene, and Health
<b>Module Organiser(s)</b>	Dr. Laura Braun, Oliver Cumming & Dr. Robert Dreibelbis
<b>Faculty</b>	Infectious & Tropical Diseases
<b>FHEQ Level</b>	Level 7
<b>Credit Value</b>	<b>CATS:</b> 15 <b>ECTS:</b> 7.5
<b>HECoS Code</b>	100265 : 101317 (1:1)
<b>Term of Delivery</b>	Term 2
<b>Mode of Delivery</b>	<p>For 2021-22 this module will be delivered by a combination of online and face to face teaching modes.</p> <p>Where specific teaching methods (lectures, seminars, discussion groups) are noted in this module specification, these will be delivered using either an online platform or face to face sessions in LSHTM. There will be a combination of live and interactive activities (synchronous learning) as well as recorded or self-directed study (asynchronous learning).</p>
<b>Mode of Study</b>	Full-time
<b>Language of Study</b>	English
<b>Pre-Requisites</b>	None
<b>Accreditation by Professional Statutory and Regulatory Body</b>	None
<b>Module Cap (Indicative number of students)</b>	25 (numbers may be capped due to limitation in facilities or staffing)
<b>Target Audience</b>	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.

<b>Module Description</b>	This module covers the links between water, sanitation, and hygiene (WASH) and health with a focus on low- and middle-income countries.
<b>Duration</b>	5 weeks at 2.5 days per week
<b>Timetabling slot</b>	Slot D1
<b>Last Revised (e.g. year changes approved)</b>	August 2021

<b>Programme(s)</b>	<b>Status</b>
This module is linked to the following programme(s)	
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

<b>Overall aim of the module</b>
<p>The overall module aim is to:</p> <ul style="list-style-type: none"> <li>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.</li> </ul>

<b>Module Intended Learning Outcomes</b>
<p>Upon successful completion of the module a student will be able to:</p> <ol style="list-style-type: none"> <li>understand how water, sanitation, hygiene (WASH) interventions impact public health and their relevance in low- and middle-income country (LMIC) settings;</li> <li>assess the strengths and limitations of the current evidence base for the effectiveness of specific WASH interventions on different health outcomes;</li> <li>have a critical appreciation of the importance of behaviour change strategies tailored to target population and target behaviours;</li> <li>apply this understanding to the design, evaluation and critique of WASH.</li> </ol>

## 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 behaviour change theories and practice.

## 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
<b>Total</b>	<b>150</b>	<b>100</b>

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**

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
Paper 1 (Proposal)	Maximum 2000 words, excluding references, figures and tables	75	2 - 4
Group Presentation	10-minute oral presentation of situation analysis + 2 page statistical annex	25	1

### 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](#).