



## MODULE SPECIFICATION

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| <b>Academic Year (student cohort covered by specification)</b>     | 2026-27                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Module Code</b>                                                 | 3434                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Module Title</b>                                                | Water, Sanitation and Hygiene, and Health                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Module Organiser(s)</b>                                         | Dr. Laura Braun, Dr Oliver Cumming & Dr Jackie Knee                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Faculty</b>                                                     | Infectious & Tropical Diseases                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>FHEQ Level</b>                                                  | Level 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Credit Value</b>                                                | <b>CATS:</b> 15<br><b>ECTS:</b> 7.5                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Term of Delivery</b>                                            | Term 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Mode of Delivery</b>                                            | For 2026-27 this module will be delivered exclusively by face-to-face teaching modes (lectures, seminars, discussion groups).                                                                                                                                                                                                                                                                                                                                           |
| <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 (WASH) contribute to public health. The module is global in scope but focus particularly on settings with a high burden of WASH-related disease. This module is also intended to provide students with training to support a future career in WASH programming, research, or evaluation through lectures, seminars, site visits, laboratory practicals, and guest lecturers. |
| <b>Module Description</b>                                          | This module focuses on water, sanitation, and hygiene (WASH), and health.                                                                                                                                                                                                                                                                                                                                                                                               |
| <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>                   | July 2026                                                                                                                                                                                                                                                                                                                                                                                                                                                               |



| Programme(s)                                        | Status      |
|-----------------------------------------------------|-------------|
| This module is linked to the following programme(s) |             |
| MSc Control of Infectious Diseases                  | Recommended |
| MSc Public Health for Global Practice               | Recommended |
| MSc Epidemiology                                    | Recommended |
| MSc Public Health                                   | Recommended |

## Module Aim and Intended Learning Outcomes

| Overall aim of the module                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| The overall module aim is to enable students to understand and apply the principles underpinning water, sanitation and hygiene (WASH) programmes and policy to maximise the potential health and social benefits. The module also aims to empower students to contribute usefully to discussions with public health professionals regarding health impacts, technology choice and policy aspects of WASH and other environmental health interventions, particularly in high burden settings. |

| Module Intended Learning Outcomes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| Upon successful completion of the module, a student will be able to: <ol style="list-style-type: none"> <li>1. understand how water, sanitation, hygiene (WASH) interventions impact public health, particularly in high burden settings;</li> <li>2. assess the strengths and limitations of the current evidence base for the effectiveness of specific WASH interventions on different health outcomes;</li> <li>3. have a critical appreciation of the importance of behaviour change strategies tailored to target population and target behaviours;</li> <li>4. apply this understanding to the design, evaluation and critique of WASH research and programmes.</li> </ol> |

## Indicative Syllabus

| Session Content                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| The module is expected to cover the following topics: <ul style="list-style-type: none"> <li>• WASH and health; classification of diseases, case studies, health impact measurement and its alternatives;</li> <li>• Water supply and health; technology options; minimum water requirements; water use behaviours</li> <li>• Water quality and health; microbiological and chemical quality standards, household water treatment options;</li> <li>• Sanitation and health; excreta-related infections, technology options, implementation issues, demand creation;</li> <li>• Hygiene and health; behaviour assessment and hygiene promotion;</li> </ul> |



### Session Content

- Wider social 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                          |
| <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.

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 an assessed assignment. 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 the summative assessment only will go towards the overall award GPA.

The assessment for this module will be an individual written assignment, submitted to Moodle. Students are asked to prepare a short report for an agency for inclusion in their next 5-year strategy in the context of government policy. Students should prepare a written report that must address the following five points:

1. *Identify a priority WASH issue, identifying the population at risk*
2. *Describe the specific problem, including the public health and broader social impacts*
3. *Discuss barriers and benefits of addressing this problem*
4. *Make recommendations for an intervention(s) to address the problem*
5. *Propose an evaluation strategy to assess the impact of the intervention you propose*

The short report can be a maximum 2000 words, excluding references, figures and tables. 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 |
|-------------------------------|------------------------------------------------------------------------|---------------|------------------------------------------|
| Individual written assignment | Maximum 2000 words, excluding references, figures and tables           | 100           | 1 - 4                                    |

### Resitting assessment

Resits will accord with [Chapter 8a](#) of the LSHTM Academic Manual

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 | Timed Test | 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, which is available in the library

## 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](#).