

# Module Specification

LONDON  
SCHOOL of  
HYGIENE  
& TROPICAL  
MEDICINE



## ABOUT THIS DOCUMENT

This module specification applies for the academic year 2019-20

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## GENERAL INFORMATION

<b>Module name</b>	<b>Water, Sanitation and Hygiene, and Health</b>
<b>Module code</b>	3434
<b>Module Organisers</b>	Oliver Cumming, Dr. Robert Dreibelbis, Dr. Ghislaine Rosa
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<b>Home Faculty</b>	Faculty of Infectious and Tropical Diseases
<b>Level</b>	Level 7 (postgraduate Masters 'M' level) of the QAA <a href="#">Framework for Higher Education Qualifications</a> in England, Wales & Northern Ireland (FHEQ).
<b>Credit</b>	15 Credits
<b>Accreditation</b>	Not currently accredited by any other body.
<b>Keywords</b>	Drinking Water; Sanitation; Hygiene; Diarrhoeal Disease; Health impact; Behaviour change: Low- and middle-income countries.

## AIMS, OBJECTIVES AND AUDIENCE

<b>Overall aim</b>	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.
<b>Intended learning outcomes</b>	By the end of this module, students should be able to: <ul 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 on different health outcomes;</li></ul>

	<ul style="list-style-type: none"> <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> </ul>
<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>CONTENT</b>	
<b>Session content</b>	<p>The module is expected to include sessions addressing the following topics (though please note that these may be subject to change):</p> <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> <li>• Non-health benefits of WASH; time and cost savings, educational benefits, status, convenience.</li> <li>• WASH and equity; how different populations are affected by adverse WASH conditions with a focus on gender and dis/ability;</li> <li>• WASH policy and financing;</li> <li>• WASH in emergency settings;</li> <li>• WASH in schools and health care facilities;</li> <li>• WASH behaviour change theories and practice.</li> </ul>
<b>TEACHING, LEARNING AND ASSESSMENT</b>	
<b>Study resources provided or required</b>	Students will be provided with an electronic access (via Leganto) to recommended and supportive reading material. We recommend the book <i>Environmental Health Engineering in the Tropics</i> by Cairncross and Feachem (2019) as an additional resource.
<b>Teaching and learning methods</b>	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. Site visits to water and sewage treatment plants can be arranged if there is sufficient demand, as well as

	drinking water quality analysis practical sessions to develop further skills.
<b>Assessment details</b>	<p>Assessment consists of two parts:</p> <ol style="list-style-type: none"> <li>(1) <i>Situation analysis</i> of WASH access and equity in a selected country (group assignment)</li> <li>(2) A <i>proposal</i> for an appropriate WASH intervention and evaluation strategy for the context described in the situation analysis (individual assignment)</li> </ol> <p>For the <i>situation analysis</i>, 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.</p> <p>For the <i>proposal</i>, individual students will prepare a written proposal of maximum 2000 words, excluding references, figures and tables.</p> <p>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.</p> <p>All assessments will be graded by the MOs and written feedback provided.</p> <p>For students who are required to re-sit, or granted a deferral or new attempt, the task will be to complete a 90-minute exam with essay style questions.</p>
<b>Assessment dates</b>	<p>The Situation Analysis is due at 9 am on the 3<sup>rd</sup> Monday of the module. The proposal is due by 2 pm on the last Wednesday of the module.</p> <p>For students who are required to re-sit or who are granted a deferral or new attempt, the next assessment date will be the standard School recommended date in mid/late September.</p>
<b>Language of study and assessment</b>	English (please see 'English language requirements' below regarding the standard required for entry).
<b>TIMING AND MODE OF STUDY</b>	
<b>Duration</b>	5 weeks at 2.5 days per week
<b>Dates</b>	Monday morning through Wednesday lunchtime
<b>Timetable slot</b>	Term 2 – slot D1
<b>Mode of Study</b>	The module is taught face-to-face in London. Both full-time and part-time students follow the same schedule.
<b>Learning time</b>	<p>The notional learning time for the module totals 150 hours, consisting of:</p> <ul style="list-style-type: none"> <li>• Contact time ≈ 68 hours</li> <li>• Self-directed learning ≈ 42 hours</li> </ul>

- Assessment, review and revision ≈ 40 hours

<b>APPLICATION, ADMISSION AND FEES</b>	
<b>Pre-requisites</b>	None
<b>English language requirements</b>	A strong command of the English language is necessary to benefit from studying the module. Applicants whose first language is not English or whose prior university studies have not been conducted wholly in English must fulfil LSHTM's <a href="#">English language requirements</a> , with an acceptable 4 score in an approved test taken in the two years prior to entry. Applicants may be asked to take a test even if the standard conditions have been met.
<b>Student numbers</b>	25 (numbers may be capped due to limitation in facilities or staffing)
<b>Student selection</b>	<p>Preference will be given to LSHTM MSc students and LSHTM research degree students. Other applicants meeting the entry criteria will usually be offered a place in the order applications are received, until any cap on numbers is reached. Applicants may be placed on a waiting list and given priority the next time the module is run.</p> <p>Partial Registration (partial participation) by LSHTM research degree students is allowed for this module.</p>
<b>Fees</b>	<p>For registered LSHTM MSc students, fees for the module are included within MSc fees (given on individual programme prospectus pages).</p> <p>If registering specifically for this module, as a stand-alone short course, individual module fees will apply.</p> <p>Tuition fees must be paid in full before commencing the module, or by any fee deadline set by the Registry.</p>
<b>Scholarships</b>	Scholarships are not available for individual modules. Some potential sources of funding are detailed on the LSHTM website.