

Module Specification

LONDON
SCHOOL of
HYGIENE
& TROPICAL
MEDICINE



An online version of this specification is available to prospective students at <http://www.lshtm.ac.uk/study/currentstudents/studentinformation/mscmodulehandbook/>

ABOUT THIS DOCUMENT

This module specification applies for the academic year 2016-17

Last revised 11 July 2016 by Sandy Cairncross, Oliver Cumming and Ghislaine Rosa

London School of Hygiene & Tropical Medicine, Keppel St., London WC1E 7HT. www.lshtm.ac.uk

GENERAL INFORMATION

| | |
|--------------------------|--|
| Module name | Tropical Environmental Health |
| Module code | 3434 |
| Module Organisers | Professor Sandy Cairncross; Oliver Cumming and Dr Ghislaine Rosa |
| Contact email | Sandy.Cairncross@lshtm.ac.uk or Oliver.Cumming@lshtm.ac.uk or Ghislaine.Rosa@lshtm.ac.uk |
| Home Faculty | Faculty of Infectious & Tropical Diseases |
| Level | Level 7 (postgraduate Masters 'M' level) of the QAA Framework for Higher Education Qualifications in England, Wales & Northern Ireland (FHEQ). |
| Credit | 15 credits |
| Accreditation | Not currently accredited by any other body. |
| Keywords | Water Quality; Water Supply; Sanitation; Hygiene; Diarrhoeal Disease; Health impact; Household Air Pollution; Formative research; Behaviour change: Low- and middle-income countries. |

AIMS, OBJECTIVES AND AUDIENCE

| | |
|-----------------------------------|---|
| Overall aim | <p>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.</p> <p>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.</p> |
| Intended learning outcomes | <p>By the end of this module, students should be able to:</p> <ul style="list-style-type: none"> • have a critical understanding of water, sanitation, hygiene (WASH) and other environmental health interventions and the ways in which such interventions can impact on health in middle- and low-income settings; • appraise the existing evidence for the effectiveness of WASH and other environmental health interventions; • be able to discuss the wider social, economic, institutional and |

| | |
|-------------------------------|---|
| | <p>environmental context of WASH and other environmental health strategies;</p> <ul style="list-style-type: none"> • have a critical appreciation for the need of technology (“hardware”) and behavior change (“software”) for successful WASH and other environmental health interventions and the pros/cons of alternative ways to measure behavior change; • have a basic understanding of the WASH products and service options available and factors which guide choice of hardware; • have a critical appreciation of the importance of behavior change communication and demand promotion/creation strategies tailored to target population; • be able to apply this understanding to the design, evaluation and critique of WASH and other environmental health interventions. |
| <p>Target audience</p> | <p>This module is intended for those who wish to understand the principles of water, sanitation and hygiene promotion interventions, as well as other environmental health intervention such as clean fuel intervention, for public health in middle- and low-income settings.</p> <p>This module is <i>not</i> suited for those who wish to gain an understanding in health risk management or quantitative risk assessment methods, as well as those hoping to gain an understanding of environmental health in high-income settings.</p> |
| <p>CONTENT</p> | |
| <p>Session content</p> | <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"> • Water and health; classification of diseases, case studies, health impact measurement and its alternatives; • Water quality and standards; microbiological and chemical quality standards, household water treatment options; • Water supply technology and policy; rural water supplies, central water treatment, tariffs, willingness-to-pay; • Sanitation; excreta-related infections, low-cost technology options, system choice, implementation issues, demand creation; • Sewage disposal; effluent quality standards, wastewater treatment and re-use; • Hygiene behaviour assessment and hygiene promotion; • Menstrual hygiene; urinary-track infections, school absenteeism; • Non-health benefits, time and cost savings, educational benefits, status, convenience. • WASH in emergency settings, equity, sustainability; • Household air pollution, acute respiratory diseases, exposure assessment • Other environmental issues (student’s choice): Food hygiene, WASH in health care settings, WASH & disability, WASH & maternal and neonatal health, urban vectors and drainage, day trip to sewage treatment plant or water treatment plant, water quality practical, household air pollution monitoring practical. |

| TEACHING, LEARNING AND ASSESSMENT | |
|---|---|
| Study resources provided or required | Students will be provided with an electronic reader (e-reader) with all recommended and supportive reading material. We recommend the book <i>Environmental Health Engineering in the Tropics</i> by Cairncross and Feachem as an additional resource. |
| Teaching and learning methods | 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 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 water and air monitoring practical sessions to develop further skills. |
| Assessment details | Students will be asked to write a brief critique (2,000 words) of a real water supply, sanitation and/or hygiene promotion project from the public health point of view. The critique will be graded from 0 to 5. 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. |
| Assessment dates | The assessment is due on the last Wednesday of the module at 9:30 a.m. For students who are required to resit, or who are granted a deferral or new attempt, the next assessment date will be the standard School-recommended date in mid/late September. |
| Language of study and assessment | English (please see 'English language requirements' below regarding the standard required for entry). |
| TIMING AND MODE OF STUDY | |
| Duration | 5 weeks at 2.5 days per week |
| Dates | Monday morning and Wednesday lunchtime |
| Timetable slot | Term 2 - slot D1 |
| Mode of Study | The module is taught face-to-face in London. Both full-time and part-time students follow the same schedule. |
| Learning time | The notional learning time for the module totals 150 hours, consisting of: <ul style="list-style-type: none"> • Contact time ≈ 68 hours • Self-directed learning ≈ 42 hours • Assessment, review and revision ≈ 40 hours |
| APPLICATION, ADMISSION AND FEES | |
| Pre-requisites | None |
| English language requirements | 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 English language requirements , with an acceptable |

| | |
|--------------------------|---|
| | 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. |
| Student numbers | 25 (numbers may be capped due to limitations in facilities or staffing) |
| Student selection | <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> |
| Fees | <p>For registered LSHTM MSc students, fees for the module are included within MSc fees (given on individual course 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> |
| Scholarships | Scholarships are not available for individual modules. Some potential sources of funding are detailed on the LSHTM website. |