





Title of Capacity Development Workshop:	Getting the foundations right: sanitation and public heath engineering	
Contact details		
Name of proposing organization/s	University of Leeds	
Practical requirements		
Timing	Full day Friday	
Minimum/ Maximum number of participants	10-50	
Facilities preferred	Ideally round tables for discussions/activities, but we can manage with lecture style if necessary.	
Staff details		
Names, qualifications and brief description of experience of staff delivering the workshop.	Professor Barbara Evans, Dr Dani Barrington, Dr Celia Way. All three teach onto the University of Leeds University MSc in Water, Sanitation and Health Engineering program.	
Course details		
Aims:	This one-day workshop will introduce participants to the principles and practice of public health engineering to bridge the gap between theory, policy and practice and explore key technologies in sanitation and wastewater management. It will cover the foundations of sanitation engineering, including design principles and practice for toilets, emptying and collection systems, transportation of wastes and treatment of sludges and wastewater. It is aimed at WASH practitioners who want to brush up their technical knowledge and get up to speed with the latest thinking around effective sanitation. It will also appeal to those who have worked in rural WASH and are now moving into the urban arena, where collection and treatment of feacal wastes is an essential part of the sanitation puzzle.	

Intended audience:	This will be an introductory course on technical aspects of sanitation, so will be particularly useful for researchers and practitioners without a background in sanitation/public health engineering and for rural WASH practitioners who are moving into urban sanitation.
Intended Learning Outcomes/Objectives:	At the end of this session you will have a basic understanding of
	<ul> <li>the key design features of typical sanitation technologies,</li> <li>the physical processes that take place within a range of common treatment infrastructures (pit latrines, septic tanks, feacal sludge treatment and wastewater treatment) and the likely extent to which leakage of feacal sludge will continue after deployment of these technologies.</li> <li>the operation and maintenance requirements of a range of typical systems and knowledge of the resources available to support design and proper operation.</li> </ul>
Format and Content of Workshop	9-10am Pillar Lecture and interactive Discussion: Environmental classification of excreta-related diseases (with links to the Sanitation Safety Planning approach)
	10-10.30 Break
	10.30-12.00 Pillar Lecture and Interactive Discussion: Key design features of common methods of capturing and transporting feaces (onsite and offsite systems)
	12.00-1.00pm Lunch
	1.00-2.30pm Pillar Lecture and Interactive Discussion: Treatment of feacal wastes – some key biological processes
	2.30-4.00pm (with tea/ coffee) Problem Solving Clinic: Capturing all flows – linkages between domestic sanitation, industrial and municipal sanitation, drainage and solid waste.
Materials to be circulated in advance or after the workshop.	Slide handouts and links to online resources will be provided to participants in the workshop.







Means of assessment and feedback to students:	In the problem solving exercise in the final session, participants will apply what they have learnt throughout the day to their own context or that of another participant in their discussion group. This will allow them to gauge whether they have met the intended learning outcomes.
Mechanism and means of course evaluation:	We will develop a feedback form to be completed at the end of the course, and also welcome any informal feedback from participants in person or via email.