Community Health 188-11 – Water, Sanitation, and Hygiene in Global Health
Fall 2012

Syllabus

Instructor: Karen C. Kosinski, MSPH, PhD
Office: 112 Packard Avenue, 3rd floor
Office Hours: Wednesdays, 4:15 p.m. to 5:45 pm and by appointment
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Class Meetings: Wednesdays: 1:30 – 4:00 pm, Location TBD

Course Description

This course covers the basics of water, sanitation, and hygiene (WASH) infrastructure in the context of tropical public health. In the first third of the course, we will cover drinking water quality and quantity, appropriate water sources, and water treatment options. In the second third, we will cover sanitation technologies (various types of latrines, sewers, and septic systems), including construction and use. In the last third of the course, we will cover hygiene in a tropical context. This includes essential hygiene practices in rural, urban, and peri-urban settings and under conditions of both water abundance and water stress. Additional topics to be addressed throughout the course include demand creation, assessment of current practices, and behavior change techniques. The course will emphasize appropriate use of the peer-reviewed literature and critical-thinking skills.

Readings

All readings for this course should be completed prior to attending the corresponding class. The required text for this course is the following:


If you choose to buy the 1st edition of the required textbook, please be aware that there may be differences between the two editions; you are responsible for material in the second edition. Additional required readings will be posted on the course website or placed on reserve in Tisch library. The following is a recommended reference textbook that will be on reserve in Tisch library:


Additional readings from the peer-reviewed literature will be assigned throughout the semester based on student interests and preexisting background knowledge.

Grading

Class Participation 20%
Quizzes 40%
‘Poster’ Outline 5%
Literature Review for ‘Poster’ 10%
Final ‘Poster’ 25%
Final Project – ‘Poster’ of Proposed Solutions to a Real-World WASH Challenge

You will be given a real-world scenario in which a community in a low-income tropical setting is faced with simultaneous water, sanitation, and hygiene challenges. You will be provided with data and background information about the community. You will be asked to create an electronic ‘poster’ that is essentially a presentation of your proposed solution(s) to the challenges faced by this community. The ‘poster’ itself is not a true poster because, although it will contain visual information, it will contain a substantial amount of text written in prose format; this type of text is not found on a typical academic poster. The idea behind this assignment is to provide you with a forum to present information in a non-linear fashion and to clearly demonstrate your understanding of the solution(s) you present.

Towards the middle of the term, you will be asked to write an outline (5% of final grade) depicting all of the major points to be made on your poster. You will also be expected to complete the literature review (10% of final grade) portion of your poster before submitting the final poster (25% of final grade). The scholarly literature should be used to inform your final proposed solution(s). If you are not comfortable with identifying, locating, reading, and summarizing the scholarly literature, please make an appointment to sit down and talk with me. I am happy to provide additional guidance on an individual basis.

The use of Microsoft Publisher or PowerPoint, or comparable software, is required. Posters will not be printed or created in hard copy. Creation of visual materials that present substantive information, and the ability to discuss the visual materials, are acquired skills that are now essential in many career fields. In this course, there will be help sessions both during and outside of class to help you become comfortable with poster preparation. A substantial amount of time should be spent on this assignment. You will be asked to present your poster on the last day of class.

Quizzes
Reading assignments are an important part of this course. Quizzes on assigned readings will be closed book, closed notes. They will typically be in the multiple choice format. Students who arrive late to class or miss class and thus miss a quiz will earn a 0 for the missed quiz. When possible, please email me before class if you have a medical excuse for missing class and are concerned about missing a quiz.

Extra Credit
Extra credit opportunities are not provided.

Late Policy
Each day an assignment is late, 10% of the total possible score will be subtracted from the final grade. Late begins at 1 minute past the deadline. In general, computer and printer problems and deadlines for other classes are not acceptable reasons for requesting a deadline extension. Save your work regularly, including copying it to somewhere other than your computer. Please let me know about extenuating circumstances as early as possible (ex. illness, family emergencies).

Plagiarism
Plagiarism is using someone else’s words, ideas, or phrases in your work and representing it as your own or not properly attributing the work. Please be aware that copying a phrase or sentence and listing a citation at the end without using quotation marks is plagiarism. Plagiarism is more fully discussed in a handbook called Academic Integrity @ Tufts, issued by the Dean of Students. For this course, you will need to upload your papers at Turnitin.com. If you plagiarize, you may get a zero on the assignment and you may be reported to the appropriate dean. Do not plagiarize. If you use a source, cite it. This applies to all information either directly quoted or paraphrased. If you copy words directly, they must be in quotation marks (“ ”).

Writing Requirements
In this course, there are several writing assignments. In general, the ability to community clearly and concisely in written form is an acquired skill. I hope that this course will be useful to you in terms of developing this skill. If you are not a strong writer and are concerned that you will not do well on the written assignments, make an appointment to sit down with me at the beginning of the term to discuss your concerns regarding the written assignments. For each writing assignment, I will read no more than one draft per person. Please see the syllabus for the dates by which you must submit a draft if you would like feedback.

Proofreading for spelling and grammar is essential; it is your responsibility to ensure that your spelling and grammar are perfect. Please pay careful attention to the formatting requirements for each assignment. Assignments that are not formatted correctly may not be accepted or you may lose points. I will not proofread for spelling and grammar unless you have a compelling reason for me to do so.
Students with Disabilities
If you require an accommodation as a result of a documented disability, please register with the Disability Services Office at the beginning of the semester. If you have not already done so, call the Student Services Desk at 617-2000 to arrange an appointment with Linda Sullivan, Director of Disability Services.

Citations for Reading Materials


Distribution Requirements Met
1. Frameworks for CH
2. Research for CH
3. World Civilizations
4. Natural Sciences (To Be Determined)

Community Health Program Learning Objectives addressed by CH-099
1. “Students can understand how multiple disciplines bring unique perspectives to cross-cutting questions of health and societies.
   a. “Integration of learning disciplinary perspectives
   b. “Understanding cultural differences through use of practice and research
2. “Students can explain and assess social and behavioral interventions to improve the health of populations.
   a. “Oral and written communication skills
   b. “Intercultural skills and abilities
3. “Students can explain the impact of infectious disease on populations
a. “Oral and communication skills
4. “Students can identify the role that public health plays in improving global health
   a. “Ethical reasoning”
# Class Meeting Topics and Assignment Due Dates

(Assignments are subject to change)

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Topic</th>
<th>Readings</th>
<th>Assignments</th>
<th>Reference Materials</th>
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</thead>
<tbody>
<tr>
<td>9/5</td>
<td>W</td>
<td>Historic importance of WASH in improving health; Current relationship between WASH and health; Infectious and non-infectious agents of disease</td>
<td>C &amp; F Chapter 1</td>
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<td>C&amp;F Chapter 2; MFMPB Chapters 1 &amp; 2; Esrey et al. 1985; Mackenbach 2007</td>
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<tr>
<td>9/12</td>
<td>W</td>
<td>Drinking water quality; Urban water sources and water treatment</td>
<td>C &amp; F Chapters 3 &amp; 6</td>
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<td>MFMPB Chapter 18; UNICEF 2004; Waterlines 2004; WHO 2011</td>
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<td>9/19</td>
<td>W</td>
<td>Rural water sources and water treatment</td>
<td>C &amp; F Chapters 4 &amp; 5</td>
<td></td>
<td>MFMPB Chapters 9 &amp; 18; Murcott 2006</td>
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<tr>
<td>9/26</td>
<td>W</td>
<td>Types of sanitation facilities</td>
<td>C &amp; F Chapters 7 &amp; 8</td>
<td>(Draft of Poster - OPTIONAL)</td>
<td>MFMPB Chapter 20; Carr et al. 2001</td>
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<td>10/3</td>
<td>W</td>
<td>Construction of sanitation facilities</td>
<td>MFMPB Chapters 6 &amp; 7</td>
<td>Poster Outline</td>
<td>Dar et al. 2011</td>
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<tr>
<td>10/10</td>
<td>W</td>
<td>Use of sanitation facilities</td>
<td>C &amp; F Chapter 9</td>
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<tr>
<td>10/17</td>
<td>W</td>
<td>Waste water treatment</td>
<td>C &amp; F Chapter 10</td>
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<td>10/24</td>
<td>W</td>
<td>Refuse/rubbish collection and disposal</td>
<td>C &amp; F Chapter 12; MFMPB Chapter 24</td>
<td>(Draft of Literature Review - OPTIONAL)</td>
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<td>10/31</td>
<td>W</td>
<td>Composting and agricultural use of human waste</td>
<td>MFMPB Chapters 13 &amp; 14</td>
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<td>11/7</td>
<td>W</td>
<td>Essential hygiene practices; Behavior change and sustainable solutions to WASH challenges</td>
<td>Cairncross et al. 1996</td>
<td>Poster Literature Review</td>
<td>Curtis et al. 2000; Fewtrell 2005</td>
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<td>11/14</td>
<td>W</td>
<td>Assessing hygiene practices in the field</td>
<td>ABM Chapters 5 &amp; 6; Vindigni et al. 2011</td>
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<td>ABM Chapter 4; Clasen et al. 2004</td>
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<td>11/21</td>
<td>W</td>
<td>NO CLASS - THANKSGIVING BREAK</td>
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<td>11/28</td>
<td>W</td>
<td>Participatory approaches to WASH; Control of insect vectors via infrastructure and environmental modification</td>
<td>MFMPB Chapter 3; C &amp; F Chapter 15</td>
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<td>12/5</td>
<td>W</td>
<td>Student presentations</td>
<td>Waterkeyn and Cairncross 2005</td>
<td>Final Poster</td>
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