

# Rollins School of Public Health

## Overview of Water, Sanitation, and Hygiene (WASH) Coursework

METHODS COURSES							
Courses	Term	Credits	Suitable for Years		Prerequisite	Overview	Instructor
			Y1	Y2			
<b>GH 522:</b> Qualitative Research Methods	Spring	3	Yes, Preferred to guide practicum	Yes	None-Priority to GH Students	This course provides students with the theoretical principles and practical skills for conducting qualitative research. Weekly sessions are focus on different tasks in the qualitative research process, including theory and concepts, qualitative research design, ethical challenges, data collection methods (Interviewing, group discussions, observation), and applying rigor in qualitative research. We describe the challenges of applying qualitative methods in international settings. This course is a prerequisite for the fall course on Qualitative Data Analysis (GH525).	M Hennink
<b>GH 525:</b> Qualitative Data Analysis	Fall	3	No	Yes, best after practicum	None.	Students will learn the theoretical principles and practical skills for analyzing qualitative data. The course is intended for second year students who have completed a course in qualitative research methods (e.g. GH522) and collected qualitative data during their summer practicum. However, students without their own data may still register and use a class data set. Students will learn techniques for analyzing qualitative data through guided classroom activities, lab sessions and structured assignments. Each student will work with their own data in course assignments. The course will provide an overview of the theoretical principles of qualitative data analysis, and practical tasks of data preparation, data analysis, writing and presenting data. The course will also provide students with an understanding of the role of software in analyzing qualitative data and develop skills in using analysis software weekly.	M Hennink
<b>GH 560:</b> Monitoring and Evaluation	Fall Spring	3	No	Yes	GH/GEH/GLE PI Students Only. Asynchronous Lab Component	Teaches technical skills to conceptualize and design process and impact evaluations of international public health programs or projects. Helps students understand the role of monitoring and evaluation in policy analysis, planning, program design and management	J McGriff

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<b>CURRENTLY NOT SCHEDULED</b> <b>GH 565:</b> <b>Developing Monitoring and Evaluation</b>	Not scheduled	2	Yes	Yes	None	This course provides students with basic technical skills to design and set up monitoring systems and carry out needs and process evaluations of public health programs and/or projects. It also helps students to understand the role of monitoring and evaluation in policy analysis, program planning, design, and implementation. The course is primarily intended for first-year students who will be conducting an M&E activity for their summer practicum and who wish to develop the M&E plan before arrival in the field. It will be expected that all students in the course will have their own project that they will need to be able to describe and use as the basis for developing their M&E plan. Through a mixture of didactic lectures and breakout activities, by the end of the course the student will have the theoretical underpinnings and will have developed their plan. Half a semester class; meets 2x/week plus lab.	Freeman
<b>INFO 530:</b> Geographic Information Systems	Fall & Spring	2	Yes	Yes	None	This course introduces the use of geographic information systems (GIS) in the analysis of public health data. We develop GIS skills through homework and case studies, and particularly address basic GIS operations such as buffering, layering, summarizing, geocoding, digitizing, and spatial queries. <b>**Students must tell instructor that they are in the WASH Certificate Program so the instructor can arrange for the use of a WASH dataset.</b>	Team

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BIOLOGY COURSES							
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<b>GH 580:</b> Environmental Microbiology: Control of Food and Waterborne Diseases	Spring January short course	2	Yes	Yes	None	Introduction to waterborne and foodborne diseases. Covers basic microbiology and epidemiology of enteric diseases, including descriptions of outbreaks and surveillance systems within the US and the global burden of disease. Features lectures from CDC leaders in enteric diseases.	Moe / Gangarosa
<b>CURRENT NOT SCHEDULED EHS 750:</b> Environmental Determinants of Infectious Diseases	NOT SCHEDULED	3	Yes	Yes	None	This course covers the many different ways that the environment influences the transmission and spread of infectious diseases in humans. We take a broad definition of "the environment", considering air, water, soil, animal, and human influences, with case studies on each of these environmental factors. The course will also cover a variety of methods used in the study of infectious, including epidemiology, mathematical modeling, risk analysis, social science, ecology, and molecular biology. The theme of this course is "Think like a pathogen"—students will learn to think from the perspective of a pathogen trying to maximize its fitness over both short- and long-term time scales	Marissa Grossman

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ELECTIVE COURSES							
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<b>EH 570:</b> Environmental and Occupational Health	Spring	2	NON EH students must get permission	NON EH students must get permission	None	This course introduces students to the major laws and regulations applicable to environmental and occupational health in the United States. We will also explore the history, politics, economics, and ethics of environmental and occupational health policy. Readings, discussion and occasional guest speakers also explore issues of equity and environmental justice. Case studies, in-class- activities and a policy analysis assignment will emphasize the challenges of environmental and occupational health policy <b><i>“Students must tell instructor that they are in the WASH Certificate Program and arrange for a WASH-related final project in order to obtain credit for the WASH certificate”</i></b>	Clasen
<b>EH 582/GH 582:</b> Global Climate Change: Health Impacts and Response	Fall	2	Yes	Yes	None	This course will explore the public health effects of global climate change, epidemiologic and other methods for understanding and studying these effects, the public health adaptation response, and potential mitigation efforts and activities. Public health responses will be discussed with particular focus on global health issues. The course will emphasize a practical approach to vulnerability and risk assessment, and students will develop skills assessing the risks of particular climate-related health impacts.	Scovronick

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<b>EH 590R</b> - Design, delivery, and assessment of WASH in schools programs	Spring	1	Yes	Yes	None	This course is a collaboration between Emory University and UNICEF. The purpose of this course is to support applied learning on developing, executing, and evaluating sustainable and inclusive WASH in Schools interventions in collaboration with local, sub-national, and national stakeholders. The course includes 10 online modules taught live every other week and a final case study assignment. The course will support participants to identify areas of concern, advocate for improved WASH conditions, select appropriate behavior change and technology approaches, and monitor program outputs and outcomes. Course participants will include MPH students, UNICEF field officers, government stakeholders, and other sectorial stakeholders and is designed to ensure active participation and sharing of experience and information between participants.	Freeman
<b>EH 590R – Section 3793</b> Planetary Health	Spring	1	Yes	Yes	None	Human beings are profoundly altering the natural systems of the planet, resulting in a variety of unintended population health consequences. This course explores several of the mechanisms by which humans are influencing the physical, chemical, and ecological conditions on the planet, and some of the potential consequences of those ongoing changes in systems for human societies. Although all topics presented in this course are intersectional, the first half of the class places greater emphasis on planetary health impacts of ecosystem changes, and the second half of the class places greater emphasis on the planetary health impacts of geological and atmospheric changes. Successful completion of this course will refine skills in systems thinking and regard for planetary health challenges	Gribble

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<b>GEH 571:</b> Global Environmental Health Policy: Power, Science, and Justice	Spring	2	Yes	Yes	None	This seminar encourages students to explore the forces that influence the development of environmental health policy, particularly in low income countries. Using a case study approach that draws on the instructors experience in international water and sanitation, the course examines the actors, the agendas and strategies, and political, social, legal and economic systems in which they operate. Special emphasis on the role of research and scientific evidence in Environmental Health policymaking.	Clasen
<b>UNDER REVIEW</b> GH 511: International Infectious Disease	Spring	2	GH ONLY	GH Only	None	Offers an epidemiological, clinical and public health perspective of selected acute infectious diseases of current national and international interest. Emphasizes the agent, methods of transmission, the host, role of surveillance, and methods of control and prevention. <b>This course may be used for elective OR biology credit.</b>	Bednarczyk
<b>UNDER REVIEW</b> GH 517/EPI 517: Case Studies in Infectious Disease Epidemiology	Fall	2			EPI 504 or EPI 530 cross listed with EPI 517	Provides training in the investigation, control, and prevention of infectious diseases by both descriptive and analytic epidemiological techniques. Students work with infectious diseases of national and international interest.	Spaulding/Fairley
<b>GH 529:</b> Water and Sanitation in Developing Countries	Fall	2	Yes, preferred	Yes	None	Lecture-style introductory class with global perspective; provides overview of WASH challenges, and describes approaches and technologies for WASH programming. Includes 6- week field and lab hands-on water sampling and testing project. Valuable preparation for students who are planning a WASH-related GFE or Practicum.	Moe

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<b>INFO 532: Principals of Geographic Information Systems</b>	Fall & Spring	4	Yes	Yes	INFO 530	This course introduces the use of geographic information systems (GIS) in the analysis of public health data. We develop GIS skills through homework, quizzes, and a case study. Specific skills include map layouts, visualization, and basic GIS operations such as buffering, layering, summarizing, geocoding, digitizing and spatial queries.	Edwards

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**FOR ALL CERTIFICATE STUDENTS** – Please contact your ADAP or Certificate Coordinator(s) with questions/concerns.

1. Your certificate requirements are the certificate requirements for the year you matriculated into, or started, the MPH or MSPH program. For example, if you matriculated into the MPH program Fall 2020 but did not declare interest in completing a certificate program until Summer 2021, you must still follow the Fall 2020 certificate requirements.
1. **Students may not count required coursework for their degree program towards a certificate**, except for electives. The RSPH catalog lists all degree program requirements by Department.

### Examples of what cannot “double count” include:

1. For GH or Global Epidemiology students’ classes that are being used to fulfill the “GH Methods” Requirement of their degree. The most overlap in these requirements are seen in WASH and CHE.
2. For any Epidemiology or Global Epidemiology students, classes that are fulfilling the “Substantive” or “Methods” selective may not be used towards a certificate.
3. For EH and GEH students, EH 520, “Toxicology,” may not be used as an elective course for GME or any other certificate program.
4. For HPM students, HPM 502 may not be used to count towards any certificate requirements.
5. For BSHES students, no BSHES required courses such as BSHES 532, BSHES 538, or BSHES 539 can count towards any certificate requirement.
6. Students who are pursuing multiple certificates, may “double count” elective courses towards two certificates. For example, if a GH MPH student takes GH 560: Monitoring and Evaluation, and it is not being used towards the GH Methods Requirement, it could be used as a course for both CHE and WASH Certificate requirements.

**WASH Students MUST compete a WASH Thesis or Capstone and APE/Practicum.** If the student is NOT being supervised by CGSW Faculty or Member, the student must fill out a Provisional Approval Form and receive approval from Dr. Christine Moe, CGSW Director. Without this provisional approval, there is no guarantee the Capstone or Thesis and Practicum will fulfill the WASH Certificate Requirement. Please submit the form to Kathleen Peters, WASH Certificate Coordinator at [kpeter5@emory.edu](mailto:kpeter5@emory.edu)