KIIS Zanzibar Program, Winter 2026-27

ENV 475: Global Environmental Health Science in Africa

Instructor: Edrisa Sanyang
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Instructor's office hours: on site and by appointment

Syllabus subject to change

1. Course Description: This interdisciplinary course explores the global dimensions of environmental and occupational health, focusing on climate change, pollution, workplace safety, and health equity. Using a place-based learning approach, students will study these issues where they happen, through rotations in a range of health care and community settings in Zanzibar, Tanzania. By comparing how different settings manage environmental and occupational hazards, students will see how place, policy, resources and culture shape health, and will develop practical, culturally appropriate and sustainable solutions. The course welcomes students in environmental and occupational health science, public health, nursing and the health sciences, and computer science or health informatics among others.

Place-Based Learning Approach: Place-based learning treats the location itself as a primary text. Students learn by observing, documenting and reflecting on how environmental and worker health is produced and protected in a specific place: its physical environment (water, sanitation, climate and coastline), its health system and institutions, its economy and workplaces, and its culture and communities. At every rotation, students will ask the same core questions: What environmental and occupational hazards exist here? Who is exposed, and who is protected? How are health data collected and used? How do resources and policy shape what is possible? Comparing the answers across sites, and with the United States of America, is the heart of the course.

Rotation Sites: Students will rotate through a variety of health care and community settings. Specific sites and schedules are arranged locally. Possible settings include:

- Hospital settings: infection prevention and control (IPC), healthcare waste management, water, sanitation and hygiene (WASH), health worker safety and occupational injury prevention, food hygiene and sanitation, emergency and disaster preparedness, handling of hazardous materials, trauma care and response, and how policies are used to guide the operations to make workers and patients safe.
- Primary health care settings: water sources and sanitation, vector control and malaria surveillance as Zanzibar works toward malaria elimination, the role of community health workers, referral pathways and delays in trauma response, and barriers to accessing care, particularly in rural areas.
- Community settings (where possible): household water storage and treatment, sanitation, indoor air pollution from cooking fuels, food hygiene at point of use, and work-related exposures in local livelihoods such as seaweed farming, fishing and

tourism. Community and home visits take place only when accompanied by local health staff and with the household's consent.

Suggested Activities by Specialization:

- Environmental health science: WASH assessments; tracing healthcare waste from segregation to final disposal; restaurant inspection, observing IPC practices, sterilization and laundry services; vector-borne and waterborne disease surveillance; food safety in hospital kitchens; and how heat, flooding and coastal conditions affect facilities and disease patterns.
- Occupational health science: needlestick and sharps injury reporting and post-exposure prophylaxis (PEP); staff vaccination; availability and correct use of personal protective equipment (PPE); ergonomics of patient lifting and handling; staffing, workload and burnout; chemical and radiation hazards; and fire and electrical safety.
- Computer science and health informatics: how patient records are created and stored (paper, electronic, or both); mapping how data moves from registration through laboratory, pharmacy, billing and insurance claims; reporting to the Ministry of Health; digital and mobile health tools; IT infrastructure such as internet access and power backup; data quality; and the privacy and security of patient data.

Professional Conduct at Rotation Sites: Rotations are observational: students do not provide clinical care, handle waste, water and other environmental media. Students must follow each site's rules, dress code and security requirements, which may be stricter at some facilities, protect patient privacy and confidentiality, and must not photograph patients, records or restricted areas. Any data collection beyond observation and reflection requires instructor approval and, where needed, ethics approval from the home institution and the relevant Zanzibar authorities.

2. Overall KIIS Program Student Learning Outcomes:

KIIS Study Abroad Mission Statement:
KIIS provides high-quality education abroad programs for students from all diverse backgrounds that promote deep international learning, are integrated into the curriculum, and encourage critical and creative thinking. Our goal is to help students understand the wider world and develop personal and professional skills for lifelong enrichment. We strive to go beyond generalizations and cultural stereotypes to help foster a nuanced appreciation of the world in which we live.

Students participating on KIIS study abroad programs aim to:
1) Understand contemporary issues of their host country/countries (i.e. KIIS program location).
2) Develop skills to interact comfortably in a global setting.
3) Understand other cultures.

Prior to your KIIS study abroad program, and again at the conclusion of your program, KIIS will ask each student to a) answer a few multiple-choice questions, and b) write a short reflective essay (two paragraphs in length) related to the elements detailed above. There is no right or wrong answer, and your responses will not affect your grade in any way. The purpose of the exercise is to help KIIS measure the effectiveness of its study abroad programs.

3. Course Objectives and Specific Learning Outcomes:
Upon completion of this course, students will be able to:

1. Analyze the impact of climate change and pollution on public health across diverse global contexts.
2. Evaluate workplace safety standards and occupational health practices internationally.
3. Discuss health equity and environmental justice issues in low- and middle-income countries.
4. Apply field-based observations from health care and community settings to propose culturally appropriate health interventions.
5. Compare how environmental and occupational health risks are identified and managed across different health care and community settings.
6. Describe how health information systems collect, report and protect health data, and identify opportunities to improve them with digital health tools.

4. Major Topics covered in the Course:

Theme 1: Introduction to Global Environmental and Occupational Health
Theme 2: Climate Change and Health Impacts, Including Vector-Borne and Waterborne Disease
Theme 3: Pollution and Waste Management Practices, Including Healthcare Waste and Infection Prevention
Theme 4: Occupational Health and Safety Standards
Theme 5: Health Equity and Environmental Justice
Theme 6: Place-Based Fieldwork: Health Care and Community Settings
Theme 7: Health Information Systems, Digital Health and Data Protection
Theme 8: Student Presentations and Final Reflections

5. Fulfillment of General Education Requirement: N/A

6. Required Readings and Materials: There is no required textbook. The instructor will provide all readings, which may include World Health Organization (WHO) guidance on safe management of health-care waste and on water, sanitation and hygiene in health care facilities (WASH FIT), the ILO/WHO HealthWISE toolkit on health worker safety, and Zanzibar Ministry of Health documents. For site visits, students should bring a notebook, closed-toe shoes and professional attire suitable for clinical settings.

7. Graded Assignments:

1. Participation and Field Engagement: 20% – active, respectful engagement during rotations, site debriefs and class discussions.
2. Reflective Journals: 20% – regular place-based reflections comparing what you observe at each site with the United States.
3. Group Project and Presentation: 30% – a comparative analysis across the rotation sites, with each specialization covering one part of the same health system (for example, the environment, workplace safety, or health data).
4. Final Paper: 30% – an individual paper proposing a feasible, culturally appropriate intervention based on your rotation observations.

Work will be graded on this scale:
90 – 100 A
80 – 89 B

70 – 79 C
60 – 69 D
Below 60 E (F)

This course will be graded on this basis, without regard to other scales (i.e., plus-and-minus) which may apply at your college or university. Note KIIS/WKU does not award +/- grades, only full letter grades.

8. Generative AI Policy:

Generative AI is permitted/encouraged in some ways, with proper attribution, but prohibited in other ways.
Students are allowed, encouraged, and even required to use Generative AI in some ways but are prohibited from using it in other ways. Keep in mind that any content produced by generative AI can "hallucinate" (produce false information), so students are responsible for ensuring the accuracy of any AI-generated content. Examples of citing AI are available at: https://libguides.wku.edu/stylewrite/ai.

Students are permitted and encouraged to use generative AI in the following ways:

- Brainstorming: You may use generative AI to stimulate creativity, generate ideas, or brainstorm topics for papers, presentations, and discussions. The generated content must serve as a steppingstone, not a final product.
- Citation Assistance: AI tools can be used to manage, format, and organize citations and references, promoting adherence to academic writing standards and specific style guides required for individual assignments.
- Grammar and Style Checking: AI-powered writing enhancement tools may be used to help with spelling, grammar, syntax, and stylistic errors.
- Concept Understanding: Generative AI can be used to explain or simulate concepts taught in class, aiding in a deeper understanding.
- Research Assistance: AI can be used to conduct initial research, compile data, and summarize articles, books, or papers. It should not replace traditional research methods but rather enhance them.

You may not use generative AI in coursework in the following ways:

- Plagiarism: Using AI-generated content as your original work without attribution. This includes essays, papers, presentations, and exam answers.
- Data Manipulation: Using AI tools to alter data or create misleading information.
- Misrepresentation of Skills: Using generative AI to complete tasks that are meant to assess your knowledge and skills.
- Confidentiality Breach: Using AI tools that might violate KIIS/university policies or laws related to data privacy and confidentiality.

Metacognitive Reflection. In addition to a proper citation, the student should include the following statement with any assignment where generative AI is used for assistance.

9. Attendance Policy:

KIIS program participants are expected to be punctual to and in attendance at all classes, presentations, meetings and required excursions, and to remain with the program for the full academic period. Unexcused absences from classes and/or mandatory meetings will result in a lowering of the student's final grade, as will excessive tardiness. Multiple unexcused

absences could result in expulsion from the program. Any absence from an academic class session must be excused for medical reasons.

10. Disability Accommodation:

KIIS will make every reasonable effort to provide accommodations for program participants with special needs or disabilities, but we cannot guarantee that we will be able to do so. Be aware that many foreign countries do not have comprehensive legislation comparable to the Americans with Disabilities Act (ADA). As a result, businesses and other establishments operating in foreign countries may not be able to provide accommodations.

If you have a disability accommodation need, we recommend you contact your KIIS Campus Representative, https://www.kiis.org/about-kiis/contact-us/campus-representatives/ early in your program selection process so that s/he has time to discuss any specific needs, including which KIIS programs may be best suited. You also are welcome to contact KIIS Assistant Director, Maria Canning, maria.canning@wku.edu, to discuss your disability accommodation needs (e.g. housing, transportation, excursions, class schedule, etc.).

Immediately after acceptance, notify KIIS Admissions and Enrollment Specialist, Haley McTaggart, haley.mctaggart@wku.edu, if you have a special need or disability that might require any form of accommodation abroad. Failure to notify KIIS may prevent you from participating on your KIIS program.

If you require any accommodations abroad, you must provide KIIS Admissions and Enrollment Specialist, Haley McTaggart, an accommodation letter from your home campus' disability accommodation office that lists the accommodations you are eligible to receive. Please do not request accommodations directly from your KIIS Program Director or other KIIS Faculty; the KIIS Office will notify your KIIS Program Director and/or Faculty after we have received your above accommodation letter.

In some cases, you may need to make arrangements for a caregiver to join you on your KIIS program, should your physician, campus disability accommodation office, or KIIS make such a recommendation or require it.

11. Title IX / Discrimination & Harassment:

Recent attention to gender discrimination and sexual harassment at colleges and universities reminds us of the importance of adhering to standards of ethical and professional behavior. KIIS Study Abroad is committed to supporting and encouraging safe and equitable educational environments for our students, faculty, and program directors. Students, faculty, and program directors are required to be civil and treat each other with dignity and respect. As such, harassment and/or discrimination of any kind will not be permitted or tolerated.

Sexual misconduct (sexual harassment, sexual assault, and sexual/dating/domestic violence) and sex discrimination are violations of KIIS policies. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to a) KIIS Assistant Director, Maria Canning (+1-859-200-1000) or KIIS Executive Director, John Dizgun (+1-270-227-2288), b) WKU's Title IX Coordinator, Ena Demir (270-745-6867 / ena.demir@wku.edu) or WKU's Title IX Investigator, Michael Crowe (270-745-5429 / michael.crowe@wku.edu). Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a KIIS program director and/or faculty member, KIIS program directors and faculty are considered

"Responsible Employees" of Western Kentucky University and MUST report what you share to WKU's Title IX Coordinator or Title IX Investigator.

If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's Counseling and Testing Center, https://www.wku.edu/heretohelp/ at 270-745-3159.

For more information on KIIS Title IX, see https://www.kiis.org/students/health-safety/title-ix-clery/.

Everyone should be able to participate on a KIIS program, attend a KIIS event, or work in a KIIS environment (e.g. KIIS office) without fear of sexual harassment or discrimination of any kind. Be respectful of each other.