

Experience WASH in Malawi

UAP5324 / BSE4394

Study Abroad Course in Malawi, East Africa

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Apply [here](#) (Application deadline February 15, 2016)

Location: Mzuzu University, Centre of Excellence in Water and Sanitation
Credits: 3
Duration: 3 weeks, Summer II (*tentative dates July 11–29, 2016*)
Program Fee: \$2,500 (*excluding course credit and flights*)
Prerequisites: None
Eligibility: Undergraduate and graduate students

Information Sessions:

- Wednesday, January 27, 4:30pm – 5:30pm, room 107, Architecture Annex
- Friday, February 5, 12pm – 1pm, room 111, Architecture Annex

Overview

This study abroad course will provide students with a unique opportunity to understand water, sanitation, and hygiene (WASH) issues in Malawi through applied research, field trips, small group activities, and classroom lectures. Water and sanitation issues are a major constraint to human development in Malawi. Almost 60% of the population lacks access to improved sanitation and 10% lack access to a safe drinking water source.

During the course, we will be based in northern Malawi and work in partnership with Mzuzu University students and faculty members and the University's Centre of Excellence in Water and Sanitation. This unique center is a regional hub for water and sanitation research in Africa that focuses on applied research, low-cost technology development, and practical applications of research findings. The center is connected to the faculty of Environmental Sciences at Mzuzu University, the Malawi government, and several NGO's focusing on sustainable development issues. The course will approach WASH from an interdisciplinary perspective, integrating community development, public health, engineering, and planning approaches.

Three structured research projects will allow students to get "out in the field" to understand WASH in different settings. Students will be involved in all phases of the research design, data collection, analysis, report writing, and sharing of the data with

groups at different levels. The research projects respond to local needs and contribute critical knowledge that will have an immediate impact on WASH approaches and services. Each of the research projects are described briefly below:

- 1) **A hygiene and sanitation assessment of public sites.** This study would entail strategically testing public environments, such as schools, public transportation sites, and markets for *E.coli* contamination and administering a survey to assess the sanitary conditions and use of the existing facilities. Students will take *E.coli* samples, conduct surveys, analyze the samples in the laboratory, and develop information campaigns and policy and planning prescriptions based on the results.
- 2) **Mapping the water and sanitation services in a community.** Participatory mapping will be used to understand water and sanitation services in a nearby community. We will also map water points and sanitation facilities using GPS. Students will help facilitate focus groups, collect GPS data, and analyze and integrate these two data sources. These maps can then be used to identify the “gaps” between WASH needs and existing services and start building a database of water and sanitation information for decision makers.
- 3) **Evaluating the impacts of rope pumps.** The Centre for Excellence in Water and Sanitation has installed several hundred rope pumps in communities nearby Mzuzu. Students will be involved in designing a survey to understand the socio-economic impacts of these rope pumps as well as assessing the sustainability and equity dimensions of the “self-supply” approach.

A unique aspect of the course is that U.S. students will work alongside students from Mzuzu University in an effort to promote cultural exchange and enable discussions about ethics and power in the field of international development. The joint teaching model, combined student cohort, and experiential approach to learning will provide students from the U.S. and Malawi with a rich educational and cultural experience.

Learning Objectives

- Understand WASH approaches, challenges, and opportunities in Malawi.
- Introduce students to the realities and complexities of doing international development work.
- Develop skills in research design, data collection, and data analysis.
- Apply concepts, theory, knowledge, and skills to a collaborative WASH research project.
- Develop cross cultural awareness, communication skills, and problem solving skills.

Internships

Following the completion of the course, interested students will have an opportunity to undertake an internship with different development organizations in Malawi. These organizations include [Ngurwu](#) (a community-based organization that provides education and development assistance in many different areas), [World Vision](#), [Merion Medical Mission](#) (an organization that installs shallow wells), and the [Church of Central Africa Presbyterian \(CCAP\)](#) (an organization that could offer internships in health, education, and development). We will work with students to help ensure a good fit between their interests and the needs of the organizations.

Administrative Details

Required texts: TBD.

Grading: The grading will be based on pre-departure assignments, your engaged participation during the course, journal and course blogs, and the various phases of the research projects. There will be no final exam. A final grade for the class will be awarded for each student and will be comprised of the following:

Preparation activities	5%
Engaged participation	30%
Journal and course blog	15%
Research project assignments	<u>50%</u>
Total	100%

Letter grades will be assigned as follows:

A	A-	B+	B	B-	C+	C	C-	D	F
100-94%	93.9-90%	89.9-87%	86.9-84%	83.9-80%	79.9-77%	76.9-74%	73.9-70%	69.9-60%	<60%

Course Policies

Special Circumstances: If you are a student with special needs or circumstances, please make an appointment with the instructors before the course to discuss your situation and whether the course would be suitable for you.

Academic Honesty: Students are expected to comply with VT's undergraduate (<http://www.honorsystem.vt.edu/>) or graduate (<http://ghs.graduateschool.vt.edu/>) honor system.

Electronic Devices: Each student is expected to bring a laptop to Malawi that will be used during the course. Please make sure you have the appropriate plug adaptor.

Communication: This course is designed to enable students from the U.S. to work

alongside students from Malawi. We hope the structure of the course will promote cultural exchange between students. During the course verbal and written communication, including e-mail, among class participants and staff *must respect every individual and their cultural beliefs*. Whereas constructive criticism is expected and encouraged, it should be targeted toward ideas and arguments, not individuals, and be mindful of existing cultural beliefs or traditions.

Syllabus Updates: The syllabus is subject to change based on the needs of the class. All changes will be announced.

Costs

The program fee is \$2,500. It includes housing and three meals per day, transportation costs, CISI travel insurance, lodging for field trips, and administrative costs. Students will also be charged summer tuition, and will be expected to cover their own out-of-pocket expenses. Personal expenses are estimated as follows:

- Roundtrip airline ticket ~ \$2,000
- Passport/visa fees* ~ \$200
- Books and supplies ~ \$50
- Personal expenses** ~ \$400

* Passport/visa fees may vary

** Will be affected by individual travel, souvenirs, and other items

Financial Aid

Education abroad financial aid may be available for Virginia Tech students. Contact Virginia Tech's Global Education Office for more information:

<http://www.educationabroad.vt.edu/>

Date	Time	Item	Location
Sunday, July 10	PM	Arrive in Lilongwe, Malawi. All course participants will arrive in Lilongwe on the same flight (no exceptions allowed). The US participants will be collected from the airport by a bus provided by Mzuzu University.	Lilongwe International Airport
	PM	Meet with the course participants from Mzuzu University. Discussion of rules and cross cultural norms in Malawi.	Msamba Catholic Center (hostel)
Monday, July 11	AM	Meetings in Lilongwe with USAID, etc. Students should dress in formal attire.	Lilongwe
	PM	Drive from Lilongwe to Mzuzu.	Bus provided by Mzuzu University
Tuesday, July 12	AM	Get to know you activities.	Mzuzu University
	AM	Review of the course goals and logistics.	
	PM	Campus tour.	Mzuzu University
	PM	Library exercise.	
Wednesday, July 12	AM	Participatory research methods. Develop a WASH map for the campus and speak with students about their water and sanitation services.	Mzuzu University
	AM	(Faculty lead: Emily Van Houweling)	
	PM	Introduction to Research Topic 1. Review of research methodology.	Mzuzu University
	PM	(Faculty leads: Wales Singini and F. Kapute)	
Thursday, July 13	AM	What constitutes access to water and sanitation? (Faculty lead: Ralph Hall)	Mzuzu University
	AM	Tour of the SMART center (low cost WASH technologies). (Led by Aaron Chirwa and Joshua Mchenga)	Mzuzu University
	PM	Introduction to Research Topic 2. Review of research methodology.	Mzuzu University
	PM	(Faculty leads: Ralph Hall, Emily Van Houweling, Rochelle Holm)	
Friday, July 14	AM	WASH and health. (Faculty Lead: Rochelle Holm)	Mzuzu University
	AM	Introduction to Research Topic 3. Review of research methodology. (Faculty leads: Ralph Hall, Emily Van Houweling, Rochelle Holm)	
	PM	Water quality sampling training.	Mzuzu University
	PM	Water quality sampling training.	

Date	Time	Item	Location
Saturday, July 15		FREE TIME – Optional Group Trip to National Park/Wildlife Reserve	Malawi
Sunday, July 16		FREE TIME	NA
Monday, July 17	AM	Public seminar: “ <i>My Neighbor Drinks Clean While I Continue to Suffer.</i> ” (Emily Van Houweling)	Mzuzu University
	AM	Guest seminar: World Vision.	Mzuzu University
	PM	Fieldwork	Site Specific
	PM	Fieldwork	
Tuesday, July 18	AM	Community development. (Faculty lead: Mavuto Tembo)	Mzuzu University
	AM	Fieldwork	Site Specific
	PM	Fieldwork	
	PM	Fieldwork	
Wednesday, July 19	AM	Design of WASH technologies. (Faculty lead: Ralph Hall)	Mzuzu University
	AM	Fieldwork	Site Specific
	PM	Fieldwork	
	PM	Fieldwork	
Thursday, July 20	AM	Gender and WASH. (Faculty lead: Emily Van Houweling)	Mzuzu University
	AM	Fieldwork	Site Specific
	PM	Fieldwork	
	PM	Fieldwork	
Friday, July 21	AM	Irrigation management and system evaluation. (Faculty lead: Mphatso Malota)	Mzuzu University
	AM	Fieldwork	Site Specific
	PM	Fieldwork	
	PM	Fieldwork	

Date	Time	Item	Location
Saturday, July 22		FREE TIME	
Sunday, July 23		FREE TIME	
Monday, July 24	AM	Public seminar: “ <i>Designing the Impact Evaluation of the MCC Rural Water Program in Nampula, Mozambique.</i> ” (Ralph Hall)	Mzuzu University
	AM	Fieldwork	Site Specific
	PM	Fieldwork	
	PM	Fieldwork	
Tuesday, July 25	AM	Research integrity. (Faculty lead: Ralph Hall)	Mzuzu University
	AM	Data Analysis and report writing.	Mzuzu University
	PM		
	PM		
Wednesday, July 26	AM	Data Analysis and report writing.	Mzuzu University
	AM		
	PM		
	PM		
Thursday, July 27	AM	Final presentations.	Mzuzu University
	AM		
	PM	Give findings back to community members.	Site Specific
	PM		
Friday, July 28	AM	Give findings back to community members.	Site Specific
	AM		
	PM	Drive from Mzuzu to Lilongwe.	Bus provided by Mzuzu University.
	PM		