

Behavior Driven Disease: A Global Epidemic

Jamaica

Winter 2020



Study Abroad Program Guide

Office of Study Abroad Programs

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DESTINATION: JAMAICA

Jamaica, a Caribbean island nation, has a lush topography of mountains, rainforests and reef-lined beaches. A former British colony, Jamaica's history is rich and vibrant and is influenced greatly by a mix of different cultures – West African, British, Asian, and East Indian. This led to the creation of the national motto; “Out of many people we are one.” Jamaica still reflects its British heritage – the official language is English, although a local dialect called patois (a combination of many different languages) is quite common. The University of the West Indies (UWI), where students will spend much of their time, is located in the northern suburbs of Kingston and was built on the grounds of two 300-year-old sugar plantations. Many remnants of stone buildings, aqueducts and other artifacts from this time period still exist!



Geography, History, Economy

Full Name: Jamaica

Capital City: Kingston

Area: 10,991 km² (4,244 sq mi)

Population: 2,970,340 (July 2016 estimate)

Official Language: English

National Language: Jamaican Patois

Government: Unitary parliamentary constitutional monarchy

Heads of State: Monarch Elizabeth II, Governor-General Patrick Allen, Prime Minister Andrew Holmes

SPECIAL NOTES REGARDING OUR DESTINATION

Climate

Although the climate in Jamaica is tropical with hot and humid weather during most of the year, January is the coolest month and has the least amount of rainfall. January's high temperature in Kingston is in the mid-80's (with low-moderate humidity) and lows average around 70. Students will be traveling to different sites around the island, including a day trip to the Blue Mountain

region (elevation approximately 5,500 ft). Temperatures at this altitude are much lower, with daytime highs averaging in the mid 60's. Rainfall in different parts of the island (especially the mountains) is often unpredictable. On days that we travel, it may be sunny when we leave but raining when we arrive at our destination. So, be prepared!

Currency

Jamaica has its own dollar, which is far less valuable than the U.S. dollar. In all exchanges, determine which dollar unit is being quoted in the price. Otherwise, it's possible that you could get taken advantage of in a financial transaction. Rates fluctuate, so before departing consult a currency exchange website such as <https://www.oanda.com/currency/converter/> to check up-to-the-minute rates. For example, the currency conversion during last year's trip was 1 USD = 128 JMD.

Food

Jamaican cuisine includes a mixture of cooking techniques, flavors, spices and influences from the indigenous people on the island of Jamaica, and the Spanish, Irish, British, Africans, East Indian and Chinese who have inhabited the island. It is also influenced by the crops introduced into the island from tropical Southeast Asia. Jamaican cuisine includes various dishes from the different cultures brought to the island with the arrival of people from elsewhere. Other dishes are novel or a fusion of techniques and traditions. In addition to ingredients that are native to Jamaica, many foods have been introduced and are now grown locally. A wide variety of seafood, tropical fruits and meats are available.

Alcohol

All participants in the program will be of legal drinking age while in Jamaica. It is absolutely mandatory that every participant **behave responsibly** in choices involving alcohol, as the abuse of alcohol endangers not only the individual, but the other participants as well. Alcohol abuse is grounds for immediate dismissal from the program, at the discretion of the Program Directors.

THE PROGRAM CO-DIRECTORS

Harold Burton, Ph.D., is an Associate Professor Emeritus in the School of Public Health and Health Professions. Dr. Burton began his career at UB in 1987 as an Assistant Professor in the Department of Exercise and Nutrition Sciences and has been a proponent of regular physical activity and good nutrition as simple and effective ways to prevent and manage chronic behavior-driven diseases such as Type 2 diabetes and heart disease. This study abroad program evolved from a freshman seminar taught by Dr. Burton that involves exploring the lifestyle-obesity-chronic disease connections in other cultures around the world. The World Health Organization has identified obesity and related diseases as a major worldwide health concern.

Dr. Burton is the recipient of several teaching and service awards including the School's teacher of the year, the Milton Plesur award for excellence in undergraduate teaching, UB's distinguished service award and appointment as a member of UB's Mortar Board Honor Society.



Contact information

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Jessica S. Kruger, Ph.D., Clinical Assistant Professor of Community Health and Health Behavior in the University at Buffalo School of Public Health and Health Professions, will be joining this winter's program in Jamaica as a Program Director alongside Dr. Burton. Dr. Kruger is a health educator whose research focuses on consumption and addictive behaviors, health behavior decision-making, and pedagogy in Public Health. She collaborates with a wide variety of community-based organizations and advises students at the Lighthouse Free Medical Clinic in Buffalo. Dr. Kruger is co-editor of the Journal of Student-Run clinics and continues to promote the importance of public health within free medical clinics. She also chairs the Publications Committee for the Society for Public Health Education (SOPHE).

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ACADEMIC PROGRAM**Global Pathways**

CHB 210/PUB 211 fulfills the Civilization and History UB Area of the UB Curriculum Global Pathway. Students who would like to use this course to satisfy the Civilization and History UB Area in the Global Pathway of the UB Curriculum will need to complete a [UB Curriculum: Pathways Worksheet](#) and submit it to Olga Crombie at omlepyj@buffalo.edu, once the CHB 210 or PUB 211 course number, title and grade appear in your Winter 2020 term in HUB (this typically happens in mid to late February) to request to have your academic record in HUB updated to reflect that this course should be used to help complete your Global Pathway requirements.

Course Rationale

The World Health Organization has identified overweight and obesity as major global health concerns that afflict almost 2 billion adults worldwide. These conditions result largely from poor lifestyle choices and greatly increase the risk of developing heart disease and type II diabetes – two leading causes of death around the world. Treating and managing these diseases costs billions of dollars each year, creating a huge financial burden on a country's health-care system. But, if we can find a way to get the majority of our world population to make healthier lifestyle choices, a simple and effective way to reduce risk and help manage existing disease, much of this burden can be eliminated. Two behaviors in particular that increase the risk of obesity and

overweight are sedentary lifestyles and poor nutrition. Obesity (and related behavior driven diseases) is not only a global health concern, it is the number 1 public health problem in the U.S. This experiential learning program will enable students in health related fields to compare lifestyle choices related to food intake and physical activity levels between a culture they would typically not know (Jamaica) and our culture in the U.S. and to transfer these lessons and experience to UB and to their own communities and professions upon their return. The course aligns with the objectives of UB's Global Pathways in that it provides an international experience for participating students. Finally, this program fits into the mission of the School of Public Health and Health Professions which is to *"promote the understanding, prevention and treatment of disease and disability, thereby improving the health of populations, communities and individuals from regionally to globally."*

Program Description

This experiential learning program will enable students to compare obesity prevalence (and accompanying behavior-driven disease) between Jamaica and the United States. **Students from the Buffalo area will attend classroom sessions at UB on Jan 6 and 7, to discuss background material for the course. Students who live outside the area and cannot travel to UB to attend these sessions can participate via Google Hangout.** Please refer to the Syllabus for more detail.

Topics covered during these two days include:

1. How cultural evolution in the U.S. (as distinct from biologic evolution) has created an environment of abundance and comfort, leading to widespread overconsumption of food and physical inactivity.
2. Jamaican history, culture and lifestyle.
3. Medical Model in the U.S. vs Jamaica
4. Introductory pathophysiology of Type 2 diabetes and Heart disease.
5. Behavior Modification.

The group will travel to The University of the West Indies in Mona, Jamaica on January 8 and spend 13 days traveling to different sites around the island, observing and interacting with the population. Participants will also meet with faculty and students in health related disciplines at the University of the West Indies in Kingston, will explore markets and farms in the area to determine the availability and cost of fresh food and will visit various food outlets to assess nutritional value of prepared food. Through observation, immersion, and survey, students will also explore daily physical activity patterns among individuals in different settings – urban vs rural and make comparisons between the U.S. and Jamaica. Students will also engage and interact with obesity practitioners and patients during visits to community health centers and clinics. Lastly, in conjunction with the University of the West Indies School of Medicine, we will set up a temporary health clinic in a remote mountain village.

A secondary objective is to have students use information they gather to explore mechanisms through which physical inactivity and poor nutrition are linked to high risk for contracting heart disease and diabetes and how adopting an active lifestyle and better eating habits can reduce risk, increase quality of life and delay the onset of debilitating illness later in life.

Assignments

Quiz: (*worth 15% of the final grade*) A short quiz will be administered that covers material presented in the 2 days before departure.

Small group project: Students will randomly be divided into groups of 4 during the fall orientation. During the course one small group project will be assigned and graded (*worth 15 % of the final grade*).

Positive In-country Participation: (*worth 20% of the final grade*)

Final paper: (*25% of final grade*).

Video Presentation (*25% of final grade*)

Primary Theme: lifestyle factors that underlie increasing prevalence of obesity and the link to behavior driven disease.

Secondary Theme: Prevention and management through exercise and diet.

Peer Evaluation: Each individual will anonymously rate all of the other members of their groups at the end of the course. Individual peer evaluation scores will be the average of the points they receive from the members of their group. A peer evaluation factor will be calculated from the scores and used to determine the final grade for each individual for **group work** only (in-class group projects; final group presentations).

Grading

Students will receive a grade letter for the course.

A +/- grading system will be used. The course grade is based on the grading scheme outlined below.

Final Grades:

Grade	Quality Points	Percentage
A	4.0	92.5 -100
A-	3.67	88.5 – 92.4
B+	3.33	84.5 – 88.4
B	3.00	81.5 – 84.4
B-	2.67	78.5 – 81.4
C+	2.33	75.5 – 78.4
C	2.00	72.5 – 75.4
C-	1.67	69.5 – 72.4
D+	1.33	65.5 – 69.4
D	1.00	61.5 – 65.4
F	0	< 61.5

STUDENT EXPECTATIONS

Students are expected to attend all classes prior to travel, review on-line material before in-class sessions and complete all course requirements as outlined above. All students are expected to read the syllabus and comply with codes of conduct as described. Students should realize that while in Jamaica they will be acting as ambassadors for the University at Buffalo. We will visit many sites around the country including community health clinics. As such, a dress code will be in effect – khakis or slacks and collared shirt or polo for both men and women. Optional for women - skirt with blouse. **No jeans, yoga pants/leggings or shorts.** When interacting with

faculty, staff and students at UWI, with clinicians in the field and with the general population, students are expected to be polite, courteous and respectful and demonstrate cultural sensitivity.

FLIGHT INFORMATION

Buffalo to Kingston: Recall that students who reside in the Buffalo area will spend 2 days in classroom sessions at UB (Jan 6-7) and students who live outside the area will participate through Google hangout. On Wednesday, January 8, 2020 students from the Buffalo area will travel as a group on a flight to Kingston, Jamaica. The details will be provided in early October. **Students are responsible for buying their own airline ticket.** Those from outside the area will make their own flight arrangements, but should coordinate arrival times in Kingston with the group from Buffalo. It is a 30 minute bus ride to the UWI campus and we want to make sure everyone is on the same chartered bus.

Kingston to Buffalo: Date of departure is Wednesday, January 22, 2020. Once again these details will be worked out in early October.

ACCOMMODATIONS

For most of the program, students will reside in the George Alleyne Dormitory at the University of the West Indies. We will occupy an entire floor of the dormitory. There are 6 double rooms (2 twin beds) and 6 single rooms. Each room has an en-suite bathroom, a desk and chair, miniature refrigerator, chest of drawers and a closet. The common area has a living room with lounge chairs and cable television, dining area and a fully equipped kitchen. There will also be a single overnight stay away from the campus at the Katamah Resort in Treasure Beach, which is on the south coast of the island.

MEALS

With such a large group, meals in Jamaica will be difficult to plan. There is no cafeteria in the dorm, so the recommendation is to buy food to at least eat breakfast in the dorm. We plan to stop at a supermarket on the way to the campus from the airport to stock up on supplies. Also, there is a fruit and vegetable market just off campus and a small grocery store on campus, which should provide enough variety. We travel almost every day and often leave early in the morning, so it is important to have a breakfast meal plan. **Students will receive a daily stipend of US\$30.00 to purchase food supplies or eat at food outlets.**

PROJECTED PROGRAM ITINERARY (Subject to Change)

Date	Location	Activities	Assignments/Expectations
Mon Jan 6 (10-12 a.m. and 1-3 p.m.)	For students in the Buffalo area: Room 17 Norton Hall, North Campus. Students in other areas will participate via Google Hangout. Lunch provided	Morning: 1. Guest Speaker: “What to Expect in Jamaica” 2. Evolutionary Discordance, lifestyle and obesity, behavior driven disease. Afternoon: 1. Pathophysiology of Type 2 Diabetes and Heart disease 2. Blood Pressure Workshop	Assigned readings, class discussion
Tues Jan 7 (10:00 a.m. – 12:00 and 1-3)	Ditto: Lunch provided	Morning: 1. Prevention and management of chronic disease. 2. Medical Model in the U.S. Afternoon: 1. Biopsychosocial Medical Model 3. Behavior modification 4. GoPro Tutorial	Assigned readings, class discussion
Wed Jan 8	Depart	Arrive at Kingston Airport – transport to UWI campus. Shop for groceries Get settled in dorm rooms.	Make meal plans for breakfast
Thurs Jan 9	1. Morning visit to a local produce market. 2. UWI Campus 3. Afternoon: Short Quiz	1. What types of produce, cost, nutritional value. 2. Heritage Tour – campus and surrounding area. 3. Short Quiz: material covered in 1 st 2 days.	What part of Jamaican diet consists of fresh vegetables and fruit? Start to gather data about lifestyle, culture
Fri Jan 10	Travel to Port Royal and Lime Key	1. Lecture – Marine Ecosystem in Kingston Harbor. 2. Boat Tour. 3. Beach time at Lime Key! 4. Seafood Dinner in Port Royal	Gather information about the marine ecosystem.
Sat Jan 11	Morning tour of Kingston. Afternoon free.	Points of interest in Kingston, including a visit to an amazing craft market. Lunch at Usain Bolt’s restaurant – Tracks and Records.	Life in the city. Observe and interact where possible. Gather info to compare to life in rural areas.
Sun Jan 12	Travel to tropical rainforest in Blue Mountains	Bicycle tour through a tropical rainforest that includes info about Blue Mountain coffee and plants and herbs used for medicinal purposes.	Continue to gather data and form opinions about lifestyle, diet and PA and “rural medicines”.
Mon Jan 13	Morning: On-campus health clinic. Afternoon: Sickie Cell Clinic. Global Health speaker	Morning: Shadow, observe and interact with clinic staff and patients. Afternoon: Gather info on global health and chronic disease.	Start to gather info about health care in Jamaica and role of community health clinics

Tues Jan 14/Wed Jan 15	Jan 14 Travel to Mandeville Community Health Clinic. Then travel to Treasure Beach	Shadow, observe and interact with clinic staff and patients. At Treasure Beach, enjoy ocean-side/beach activities! Return to campus on Jan 15.	Gather data and start to form opinions about lifestyle, diet and physical activity.
Thurs Jan 16	Morning: Kingston Public Hospital Afternoon free	Diabetes Clinic Lunch at Devon House	Interact with patients and staff
Fri Jan 17	Travel to sustainable organic farm in St Mary Parish.	Tour the farm; learn about sustainable and subsistence farming; enjoy a vegetarian meal.	Continue to gather data and form opinions about lifestyle
Sat Jan 18	Travel to a mountain village and set up a temporary health clinic	This activity is conducted in collaboration with the UWI Medical School.	Collect data on early signs of heart disease and diabetes. Counsel patients
Sun Jan 19	UWI Campus	Let's prepare a Jamaican Meal!	Each group will provide a dish or 2 for dinner
Mon Jan 20	Morning: Interact with UWI students and faculty Afternoon: Tour UWI Hospital	Morning: Exchange ideas and experiences. Afternoon: Observe facilities at University Hospital	
Tues Jan 21	UWI	Hand in Paper and view Video Presentations	The last Supper.
Wed Jan 22	Return to Buffalo		

PASSPORTS AND VISAS

Program participants must have a valid passport and are responsible for checking the **expiration date to ensure that it is no less than six months after the day we leave Jamaica.**

US citizens are NOT required to apply for a visa to participate in this program. The Office of Study Abroad Programs will provide instructions for students from other countries if they are required to apply for a visa in order to travel to Jamaica and participate in this program.

KEEP YOUR IMPORTANT DOCUMENTS AND ITEMS SAFE

Carry all important documents such as money, credit cards, passport, and plane tickets with you in your carry-on bag. One of the best ways to keep these items safe from harm is to purchase a holder that you wear under your clothes. These are available from most luggage stores, AAA, etc. and usually in two styles: with a string to wear around neck or with a strap to wear around your waist.

Make two photocopies of your passport and leave one at home with someone you can easily contact should you lose your passport. Hide the other copy in your luggage, separate from your passport. In addition scan and/or copy all bank/credit cards you carry and leave a copy at home with someone and also upload a pdf that can easily be retrieved online if needed. In the unfortunate event you

lose your passport and/or bank/credit cards. You will be then able to retrieve the information and contact the appropriate companies.

LIVING SAFELY IN JAMAICA

UWI Campus

The entire campus is surrounded by fences and entry into the campus is controlled by gates. Entry into the Dormitory is strictly controlled and has 2 levels of security. Entrance into the complex itself is gate-controlled. There are security guards stationed within each complex and there is a security officer at the entrance to each dorm to check ID's. Dr. Burton has visited the campus on many occasions and noticed that students, faculty and staff travel freely around the campus at all times during the daytime and after dark. Always travel in a group. **It is not permitted to leave the campus at night, unless approved by Dr. Burton or Dr. Kruger. Non-compliance can result in immediate dismissal from the program.**

Phone #'s: Campus Security 876 784-8881: Local Police 876 927-2298

Kingston and Surrounding Area

Just like any large international city, Kingston has areas that should be avoided. We will always be traveling as a group and going into the city on only two occasions – to visit an obesity/diabetes clinic at the Kingston Public Hospital and to have a short tour of the city. On 2 other occasions we will be visiting community health clinics in a rural area and in a town setting. I have met with physicians and other staff at all of these facilities and observed that security is not an issue. Security is also not a problem at all other sites we plan to visit during our stay.

Protecting your valuables

Leave your laptop in your dorm room during trips away from the campus. Carry all important documents in a wallet underneath your clothes – either around your neck or strapped to your waist. **Do not carry your phone in your hand while walking.**

Additional Advice

Avoid areas of demonstrations and be careful within the vicinity of demonstrations. Even demonstrations intended to be peaceful can turn confrontational and possibly escalate to violence. Stay current with media coverage of local events and be aware of your surroundings. Avoid showing signs of affluence and carrying large sums of cash.

Students are strongly encouraged to register for the U.S. Department of State Smart Traveler Enrollment Program (STEP) to receive up-to-date safety and security information and help them reach you in case of an emergency, whether natural disaster, civil unrest or a family emergency. This will also help family and friends get in touch with you in an emergency.

SUGGESTED PACKING LIST

Guiding Principles:

- Travel light, bring only what is necessary. There is a laundry facility in the Dorms at UWI so you don't need too many different outfits.
- Recall that there is a **dress code** for activities when interacting with faculty, staff and students at UWI, with clinicians in the field and with the general population (khakis or slacks and collared shirt or polo for both men and women). Optional for women - skirt with blouse.

No jeans, yoga pants/leggings or shorts. Of course, during leisure time (beaches, dorms etc), casual or beach attire is appropriate. Daytime highs are in the mid-80's; water temperature is around 81° F.

- We will be spending two days in the Blue Mountain region, where day time temperatures average in the mid-60's. A light jacket or sweater and a cap should suffice.
- Rainfall in different parts of the island (especially the mountains) is often unpredictable. On days that we travel, it may be sunny when we leave but raining when we arrive at our destination. So, be prepared!
- Close-toed shoes (or all-purpose shoes) for walking/hiking; shorts and swim attire for beach outings, a pair of sandals or flip flops. A hat if you need protection from the sun.
- Sunglasses and sunscreen! January has the most sunlight (and least amount of rain) of any month
- Plan on carrying the luggage with you on board to ensure you and your luggage arrive together.
- A daypack to carry stuff during our daily trips to different sites around the island.
- Check with your airline for baggage allowances and carry on regulations (particularly in terms of fluids, etc.)
- Laptop.
- Plan on bringing something that says UB! A shirt, a hat, etc., so you can take photos for the UB Study Abroad Annual Photo Contest proudly displaying our colors and logo.

Personal Care:

- Travel size toiletries (shampoo, conditioner, moisturizer and other creams, etc.)
- Antiperspirant
- Make-up, shaving needs, if needed
- Vitamins, and other medical needs
- If you wear prescription glasses, bring a 2nd pair in case you lose or break your 1st pair.
- Contact lenses and contact solution, and your glasses for when you are not using contacts. Actually it is best **not** to travel on a plane with contact lenses in because eyes dry out. Use your glasses for the flight instead.
- Water Bottle

Other Necessities:

- Your UB student ID. This will allow you to use the facilities (pool, gym etc at UWI)
- Wallet that hangs inside your shirt or strapped around your waist to hold important documents and money.
- Important addresses and phone numbers for contacting friends and relatives
- Prescription medication in **original container** carried on plane with you.

ADVICE ON MONEY, COMPUTERS, PHONE, ETC.

Money for personal expenses/incidentals

Recall that you will receive a \$30 stipend for food each day. This is equivalent to approximately \$3,800.00 JAM dollars. For personal expenses - most places will accept American credit cards. Your credit card is a good alternative to carrying cash and it will automatically convert the local charges into dollars on your statement, often with a service fee in most cases, unless you own a credit card that has "no foreign transaction fees". However, despite the convenience **you should carry some cash** and be disciplined about purchases. You are not required to acquire Jamaican

currency until you get there. There is a bank on the UWI campus where money can be exchanged. To summarize, use cash whenever possible and keep very close track of debit and credit card usage and fees.

Computers and Personal Electronics

Voltage in Jamaica is the same as it is in the US, 110-120 Volts, so a converter will not be necessary. Electrical sockets (outlets) in Jamaica are very similar to the electrical outlets found in the United States, and if your appliance has a North American plug, it's possible that you won't need any adapter at all in order to plug in there. However, there are two potentially very important physical differences that may need to be addressed with an adapter: **grounding** and/or **polarization**. If your plug has one or both, and the socket doesn't, then the plug may not physically be able to fit into the socket without an adapter. Outlet adapters are available at AAA, Wal-Mart, Target and most electronics stores for less than \$10.

Phones

Check with your cell/mobile phone carrier to find out your international coverage, while in Jamaica. Usually a package can be purchased for reasonable cost. In Jamaica, we will be using "GroupMe" to communicate among the group. Skype, WhatsApp, and Facetime are convenient ways to check in with home. Jamaica country code: 1 and area code for all of Jamaica is 876.

Water

Tap water in Jamaica is clean and safe to drink. Save money by using a refillable water bottle, instead of purchasing water or other drinks.

IMPORTANT CONTACT INFORMATION

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Police/Fire/Ambulance emergencies in Jamaica:

Police	Tel. 119
Fire Service	Tel. 110
Ambulance	Tel. 110