

# Behavior Driven Disease: A Global Epidemic

## Jamaica

### Winter 2019



## 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 km<sup>2</sup> (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 4,000 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 on October 15, 2018 was 1 USD = 132 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 DIRECTORS

**Harold Burton, Ph.D.**, is an Associate Professor Emeritus in the School of Public Health and Health Professions at the University at Buffalo. Dr. Burton began his career at UB in 1987 as an Assistant Professor in the Department of Exercise and Nutrition Sciences. He 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****UB Curriculum Global Pathway**

ES 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 [omlepkyj@buffalo.edu](mailto:omlepkyj@buffalo.edu), once the ES 210 or PUB 211 course number, title and grade appear in your Winter 2019 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.

**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 7, 8 and 9, 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 three 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. Nutritional assessment; how to collect and analyze 3-day food records, and how to administer a Physical Activity Questionnaire.
4. Introductory pathophysiology of Type 2 diabetes and Heart disease.

The group will travel to The University of the West Indies in Mona, Jamaica on January 10 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 – city, village/town, and rural – to make comparisons and analyze data. Students will also engage and interact with obesity practitioners and patients during visits to community health centers and clinics.

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 3 days before departure.

**Small group projects:** 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 three days in classroom sessions at UB (Jan 7-9) and students who live outside the area will participate through Google hangout. On Jan 10, students from the Buffalo area will travel **as a group** on a flight to Kingston, Jamaica. The details will be provided in the next couple of weeks.

**NOTE: Students are responsible for buying their own airline ticket.** Students from outside the area will make their own flight arrangements, but should try to co-ordinate arrival times in Kingston with the group from Buffalo. It is a ½ hour bus trip 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 23. Once again, these details will be worked out over the next several days.

## 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 Sunset Resort and Villas on the south coast of the island.

## MEALS

With such a large group, meals in Jamaica will be difficult to plan. As such, the recommendation is for have a meal plan for breakfast to eat 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 to plan your breakfasts. Students will **receive a daily stipend** of \$30.00 to purchase breakfast supplies and eat lunch and dinner.

**PROJECTED PROGRAM ITINERARY (Subject to Change)**

<b>Date</b>	<b>Location</b>	<b>Activities</b>	<b>Assignments/Expectations</b>
Monday, Jan 7 (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.	Intro to Evolutionary Discordance, lifestyle and obesity, behavior driven disease <b>NOTE:</b> If necessary, a GoPro Tutorial will be added.	Assigned readings, class discussion
Tuesday, Jan 8 (10 am - 12pm) AND (1-3pm)	Ditto: Lunch provided	Morning: Continue Lifestyle and behavior driven disease: Intro to Basic Nutrition: Afternoon: Medical Model in the U.S. Guest Speaker Jamaican Culture and Customs	Assigned readings, class discussion
Wednesday, Jan 9 (10am – 12pm)	Ditto: Lunch provided	Introductory Pathophysiology of Type 2 Diabetes and heart disease. Prevention and Management	
Thursday, Jan 10	Depart	Arrive at Kingston Airport – transport to UWI campus. Stop and get some food supplies. Get settled in dorm rooms.	Make a meal plan for breakfasts
Friday, Jan 11	UWI Campus	Heritage Tour – campus and surrounding area; Interact with faculty and students at UWI.	Start to gather data about lifestyle, culture.
Saturday, Jan 12	Morning visit to a local produce market. Travel to Port Royal and Lime Key	What types of produce, cost, nutritional value. Boat Tour of Kingston Harbor. Gather information about the causes of the decline in fish/seafood population. Beach time at Lime Key! Dinner at a famous seafood restaurant.	What part of Jamaican diet consists of fresh vegetables and fruit? Does the decline in availability of seafood affect diet/nutrition?
Sunday, Jan 13	Travel to a coffee plantation in the Blue Mountains	Bicycle tour through a tropical rainforest that includes a visit to a coffee plantation.	Continue to gather data and form opinions about lifestyle, diet and PA. Rural vs city
Monday, Jan 14	On-campus health clinic. Short Tour of Kingston	Shadow, observe and interact with clinic staff and patients. Short tour of Kingston.	Same
Tuesday, Jan 15/ Wednesday, Jan 16	Jan 15 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 16.	Gather data and start to form opinions about lifestyle, diet and physical activity (PA



Thursday, 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. Rural vs city
Friday, Jan 18	Day off. Trip to Ocho Rios	Dunn's River Falls – and Fun in the sun!	
Saturday, Jan 19	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
Sunday, Jan 20	UWI Campus	Let's prepare a Jamaican Meal!	Each group will provide a dish or 2 for dinner
Monday, Jan 21	Morning UWI: Afternoon: Explore Kingston	Morning: Work on Paper and Video Presentation Afternoon: Observe, interact and engage	Collect more data – life in the city.
Tuesday, Jan 22	UWI	Hand in Paper and Video Presentations	The last Supper
Wednesday, Jan 23	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 will NOT be 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 on 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 you could easily retrieve online if needed. In the unfortunate event you were to 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 controlled by gates. 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 4 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.**

**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 two other occasions, we will be visiting community health clinics in a rural 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 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.

You are strongly encouraged to sign up 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 abroad, 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, only bring 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 and beach attire is appropriate. Daytime highs are in the mid-80's; water temperature is around 81<sup>0</sup> 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 Office of Study Abroad Programs proudly displaying our colors and logo that can be used for the website and other promotional materials.

### 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 2<sup>nd</sup> pair in case you lose or break your 1<sup>st</sup> 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 friend and relatives.
- Prescription medication in original container carried on plane with you.

## **ADVICE ON MONEY, COMPUTERS, PHONE, ETC.**

### **Money for personal expenses/incidentals**

Most places in Jamaica 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 Generally**

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. 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.

### **Time**

Jamaica is 1 hour behind New York.

12:30 PM in Buffalo, NY = 11:30AM in Jamaica

### **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

### UB Study Abroad Programs

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Emergency Phone:	+1 716 645-2222 (UB Police – 24 hours)
E-mail:	<a href="mailto:trevorpo@buffalo.edu">trevorpo@buffalo.edu</a> or <a href="mailto:studyabroad@buffalo.edu">studyabroad@buffalo.edu</a>

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142 Old Hope Road  
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<https://gh.usembassy.gov/>

### Police/Fire/Ambulance emergencies in Jamaica:

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