Module #20

McMaster University
Ontario Universities Program in Field Biology

Course Title:	Land & Sea – Tropical Research in Jamaica
Instructor(s):	Dr. Jurek Kolasa kolasa@mcmaster.ca
Dates:	Dec 27-29, 2026 – Jan 10/11, 2027. Important: Do not book flights until the dates are confirmed with the instructor
Location:	Discovery Bay Marine Laboratory, DMBL, University of West Indies, Jamaica
Cost:	**Course Fees: Terrestrial or Snorkel Project** Deposit: $350. Balance: C$2290 • Students may need to cover costs of incidental materials/equipment purchased for field work • **Course fees** cover transportation to and from Montego Bay to DBML and two weeks' Room and Board, and Facility fees, but not their home university course registration. • The **$350 deposit** is non-refundable, paid to your home university; the **Balance** ($2290) is paid by cheque to McMaster University by Aug 31st 2026. • To cancel and get your deposit back, you must inform us in writing by 1 April 2026 for sufficient time to find a replacement student who will be able to attend in your place. If we cannot find a replacement, your deposit may be forfeited. • If you cancel after September 30, 2026, we reserve the option of keeping your deposit + balance, but will do so only if we have no alternative, or funds were already transmitted to Jamaica. We will try to find a replacement attendee, and if we do, you'll get your money back. **Airfare**: Additional to Montego Bay, and return **Equipment**: a **valid passport (**6-month expiry minimum). Students provide their own field equipment such PVC m^2 quadrats, tape-measures, pencils/erasers, and log books as appropriate to their research project. Further; snorkelers must provide their own mask, snorkel, fins, and wetsuit excellent health and Travel Insurance are advised.
Prerequisites:	**Academics:** students should be in their 3rd or 4th year of a Biology, Env. Sci., or similar program; and: • have at least one advanced 3rd/4th year ecology course beyond the Introductory (2nd year) level, and • have at least one biometry or similar statistics course. **Snorkelling**: students must be comfortable swimming. Those who wish to dive recreationally (not a part of academic activities) must be minimally certified with their basic open-water certification, as per Marine Lab requirements.
Enrolment:	14(4) students minimum, 16(6) students maximum (pending accommodation availability)
Course Description (brief):	Research projects on the ecology of marine/coastal organisms in the area (swimming/walking) of the Marine Laboratory Student teams of 2-3 submit a 3-4 page research proposal due Nov 1st, 2026. Proposals may need updating upon review/comments provided by the instructor. Contact the instructor re projects. Once in Jamaica, students will perform field work/data collection morning and afternoon, and engage in lectures/presentations/or workshops through the evenings.
Evaluation:	**Research proposal**: due Nov 1st, 2026 (group project 10%) **Field effort:** commitment, initiative, participation, & industriousness (individual effort 10%) **Lab notebook:** individual effort 20% **Quizzes**: individual effort 10% **Final paper**: Following the return home, students may assist each other with their statistical analyses, but the written final paper can only be individual in effort. This paper is to mimic the format of a published paper, due Feb 28th, 2026 (50%)

An Average Day – What to Expect

(a) Daily timeline	07:00-08:00 - prepare field gear/ dive gear 08:00-08:45 - breakfast and cleanup 09:00-12:15 - morning field work 12:30-13:15 - lunch and cleanup 13:30-17:30 - afternoon field work 18:30-19:30 - dinner and cleanup 19:30-23:00 - lectures, species id workshops, presentations, statistical workshops
(b) Work habitat & Physical exertion, (c) Common activities	**Pre-field course:** • students will be assigned into research teams based on research interests & home university. Teams are required to submit a 3-5 pg. peer-reviewed research proposal by Nov. 1st (10% final grade) **Walking/ Swimming/ Snorkelling & Scuba Competency:** • terrestrial projects may require up to several km-long daily walks along coastal rocks (sharp, uneven, risk of falling/ bruising), or through thick bush (plant thorns, uneven rocks) carrying, as required, their field equipment. • snorkellers and scuba divers will necessarily show a minimal level of swimming (& scuba) competency. This will be evaluated the first day including by the lab certified Dive Master: o treading in water for 10 min., a 200m swim, and a 25m underwater swim o for scuba divers - mask/regulator recovery, buoyancy control, scuba-scuba exchange **Research Projects:** • all students are expected to engage in field research activities through both morning, and afternoon – everyday • all students are expected to keep their research site clean, and uncluttered when not in active use (e.g., during meals, overnight) • all students are expected to stow their gear in a safe manner when in transit, and/or when work is complete • all *in-water* students (e.g., snorkelling/ Scuba) need to address these common risks: o seasickness - generally avoided with Gravol o middle-ear barotrauma - if sustained you'll be out of the water for minimally a week; easily avoided with slow descents and proper ear-clearing techniques that we'll practice again and again o slow-creep hypothermia - avoidable by keeping warm (full body minimum 4-5 mm wetsuits), eating well, staying hydrated, and having good sleeps. • all students are expected to participate/engage in evening lectures, workshops, and presentations as scheduled.
(d) Weather, dehydration, & biting insects	**Weather:** • average daily high temperatures are between 22-30°C; and average nighttime low temperatures are above 18°C. However, northern weather systems can significantly cool things down (Jan 2010 local temps were 8°C cooler for a solid week). Rain and cold weather can make for a non-Caribbean experience – be prepared. • the sun can be hot, and UV burns do occur. Common sense long loose clothing and hats are recommended in addition to sunscreen. In-water students use Reef-friendly sunscreen only. • snorkellers/Scuba divers bring an extra sweater/warmth – you need to protect against slow-creep hypothermia during the second week especially. • occasional heavy winds/rains – bring waterproof wind breaker, spare shoes **Dehydration:** • a significant concern due to both being in a Caribbean climate and for the divers, that you are scuba diving. Fresh water is plentiful on campus – bring a water bottle and keep it with you at all times. Keep drinking so you are appropriately hydrated. **Bugs:** • mosquitoes are active among the vegetation, and in the evenings/night (bug spray, long sleeves and pants). • potentially the larger biting insect problem are the sand-flies and no-see-ums. Keep your outdoor shoes outside your residence (small sand grains can carry the no-see-ums indoors); deet-based bug sprays do not work on the no-see-ums, instead bring baby oil and "after-bite" for the itch. • long loose clothing help as sun-screen and similarly as bug barriers. Scented soaps/shampoos attract these bugs. there is no malaria but dengue fever is present in Jamaica. If you feel "flu-like", symptoms talk to the instructors.

(e) Toxic/poisonous, wildlife/ plants	• on land - avoid manchineel apple and any plant that oozes white, sticky milk. Many plants have thorns and some have sharp leaf edges • In water - there are numerous hazardous marine species present that could abrade, sting, puncture, or bite. These include sponges, corals, fire-corals, fireworms, cone shells, urchins, jellyfish, stingrays, eels, scorpionfish and sharks. • the simplest and most effective defenses against all of the above is good buoyancy control, be aware of your immediate surroundings, don't touch, and don't wag the tail of a passing shark. For scuba divers we will practise buoyancy control throughout the course.
(f) Sleeping, washroom & laundry facilities	• separate male/female student dorms (4-6 to a room) with bunk beds/mattresses/linen (no heating, no AC). • students should consider bringing a sleeping bag for extra warmth – especially the snorkellers/scuba divers • strongly recommend bringing second pair shoes/flipflops for indoor use only. • each dorm room has its own flush toilet and cold-water shower • laundry facilities are available for a small fee
(g) Meal plans & food allergies	• meals are prepared on site by the kitchen staff. As the station accommodates many visiting courses a year the staff is well versed in addressing most vegetarian, gluten-free, or nut/seafood allergy diets. However, you may need to bring supplements if your diet is significantly restrictive. • if you need your morning tea/coffee – bring teabags/ pound or two of ground beans and an inexpensive bodum. Further, if you need to have your mid-morning/mid-afternoon snacks (e.g., granola bars), then bring your own non-perishable sealed snacks.
(h) Non-academic responsibilities	• students are responsible for keeping their own dorms/washrooms clean (cleaning supplies provided)
(i) Degree of isolation	• the Discovery Bay Marine Laboratory is isolated. We are essentially off the map, however the town of Discovery Bay is approx. a 30 min. walk away. • DBML does provide power (Canadian-style electric wall outlets) and wireless internet service (although slow, but adequate for emails/browsing – DO NOT use the internet to download movies/YouTubes, or other). Keep your photos on your own computers/cameras, upload them to Facebook, Instagram, etc, when you get home. • cell phone coverage is available, but make sure you obtain a roaming plan with your regular service provider BEFORE you leave home otherwise your roaming fees will be sky-high. Consider "WhatsApp" for text messaging • The station does have its own medical facility for daily bumps and bruises. More significant injuries you'll necessarily be transported to Discovery Bay and beyond.
(j) Alcohol & drugs	• The course will remain alcohol and drug-free. Transgressions will be evaluated for immediate exit from the course.
(k) Vaccinations/ Insurances	• All students will require the full suite of COVID-19 vaccinations (requirement may change by the time of departure). Students must bring their health care cards and/or proof of insurance with them. • to get the latest updates regarding health and recommended vaccinations for travelling to Jamaica visit https://travel.gc.ca/destinations/jamaica • Every recreational scuba diving student must have DAN diving insurance.https://www.diversalertnetwork.org/insurance/dive/ independent of other insurances.
(l) Social/ Cultural Situations	• The DBML is an academic institution, not a holiday resort thus respectful swimwear and clothing is assumed. Avoid: ○ strappy/strapless tops/dresses (i.e., shoulders/midriffs to be covered); ○ all students – any tight clothing/apparel ○ wet bathing suits in the dining hall; clothing that advertises drugs, alcohol companies, or inappropriate phrases • Accommodation is in rooms with mosquito screens but not glass windows. Sleep is easily disrupted by noisy behaviour in the adjacent rooms or access areas (stairs, passages). Do not contribute to these concerns. • Meeting and interacting with Jamaican villages, artists, and markets are encouraged and a positive experience – please do not hesitate to ask for suggestions and nuances of how to make these interactions rewarding. We will provide tips, identify opportunities during a day off, and for after project hours as much as possible.
(m) Final comments	• notwithstanding all the above, this course is a great experience for all (e.g., hands-on scientific research, personal growth, new friends with like-minds, unique experiential learning, local culture, music). • on an academic front, the course is designed along multiple pedological trajectories, each contributing to your growth and maturation in: ○ tropical systems ecology ○ research design and statistics ○ writing scientific papers • It's a lot to pack into two weeks, but with advance preparation (i.e., your research proposal) and with years of experience teaching this course, the rewards are well worth the efforts for all of us.