

Course Title:	Dolphin & Whale Biology and Conservation in Tropical Asia	
Instructor(s):	Dr. John Wang (Trent University & CetAsia Research Group; cetasiajohn@gmail.com) Dr. Bradley White (Trent University; bradley.white@nrdpfc.ca ; 705-748-1011 x7113)	
Dates:	May 3 rd -May 16 th , 2020 (2 weeks). Arrive to meet in Asia on Sunday, May 3 (early am) so depart from Canada on, or before, May 2 nd ; depart from Taiwan at about noon on May 16 th .	
Location:	Taiwan (due to continuing civil unrest, the course will not be visiting Hong Kong in 2020)	
Cost:	~\$2,450 (\$350 deposit to home university, \$2,100 balance). Includes: all domestic ground travel, all accommodations, most meals in Taiwan (except 2-3 days of lunch and dinner, which will be on your own to choose and pay), all field and laboratory expenses, boat charters. But excludes: airfare (~\$800-1,000); visas (Canadian and US passport holders do not require visas for Taiwan); travel insurance; meals on 2-3 days (student responsibility). Balance (\$2,100): required by Monday, March 2, 2020 (and is non-refundable) . (Note: the total cost per student (i.e., course fee + flights + meals) for this year's course will be noticeably less than in previous years) because unlike in past years, course fees this year will include most of your meals and flying only to Taiwan.	
Prerequisites:	A 2nd year ecology course. Experience with introductory statistics is also recommended.	
Enrolment:	A minimum of 15 students and a maximum of 25 (3 reserved for Trent students).	
Course Description:	Asia has some of the world's most populated countries that have heavily exploited marine resources and massive industrialization along coastal regions. As a result, Asia is facing some of the worst marine conservation issues in the world. This course will introduce students to many of the main marine conservation issues using a highly visible group of organisms, the cetaceans (whales, dolphins and porpoises). Students will learn the kinds of information that are needed to assess and understand the impacts of human activities on cetaceans (e.g., threats, taxonomy, distribution, population biology) and research methods used to obtain such information. Students will learn hands-on research methods at sea (such as: exploratory surveys, line-transect surveys, mark-recapture using photo-identification data) and will visit coastal regions and fishing ports to experience the local conditions. They will also acquire basic skills and knowledge such as species identification, data collection, general cetacean biology, conducting research projects and critical review of literature.	
Evaluation:	Participation & professionalism (begins on the first e-mail contact with professors)	20%
	Research and presentation of an assigned species	10%
	Debates	5%
	Critiques	10%
	Written final examination	25%
	Research projects (papers and presentations based on application of learned course material)	30%

For more detailed information, please consult the course website: <http://taiwan.nrdpfc.ca/index.htm> (**Note:** due to continuing civil unrest, we will not be visiting Hong Kong in 2020).

An Average Day – What to Expect

(a) Daily timeline	<p>We usually aim for a “typical” day to start at about 8am and end before dinner time. However, this is a field course and there may be activities that will require an earlier start in the morning and other days may require evening sessions to keep us on schedule. This is not meant to be a deterrent. On the contrary, it means that we are maximizing your experiences during the course to get the best return for your money, but it also means that you need to be prepared. Such a pace is also an introduction to a little of the demands that field work often involves. In the second half of the course, our schedule eases somewhat with the change in the focus of the course from lectures to research projects but there will still be lectures and field research. Because field work often depends on weather, we are at the mercy of the conditions and are not able to set fixed schedules. Being on a flexible schedule is also a very important experience of field research.</p>
(b) Work habitat & Physical exertion	<p>Although this is an intense course with constant activities, this field course is not overly physically demanding for extended periods of time compared to some other courses. There is some brisk walking (about 2-4 km/day) to get from place to place and there may be a hike up a steep set of steps (about 200m high). Notably, you will be doing this while carrying your equipment (e.g., binoculars, clipboards, notebooks), bottles of water, food (lunches, snacks), sun protection clothing and sunscreen, etc. and in a climate that is often humid and hot (>30oC) and near 100% humidity. However, these activities do not last more than a couple of hours at a time and we try to spread out physical field activities so that they will not last longer than about half a day. Boat trips can be quite long (4 to 8+hours) but you will have time to sit and rest during the boat trips and there are shaded areas on the boats to stay out of the sun. Although we do not usually plan to have boat trips during poor weather conditions (e.g., heavy rain, large swells, etc.) there is always a chance the weather changes. Generally, the climate is warm but being wet (and being blown by the wind) can cause students to feel cold so bringing a light sweater and rain gear can easily remedy this issue. Boat trips can also cause students to feel seasick (motion sickness). Over-the-counter anti-nausea medication (e.g., Gravol) can reduce discomfort.</p> <p>While out in the field, some students have had issues with the heat and sun. Taking simple measures to make sure you are well hydrated and covered up from the sun can prevent such issues.</p> <p>Even though this course may not be as physically demanding as other courses, days can be quite long and for consecutive days so fatigue can occur if students are not mindful of their bodies’ needs. Students who are focused on the course and mindful of their time-management time and well-being (e.g., choosing sleep over staying up late for non-course related activities; staying well hydrated and out of the sun during field activities; etc.) can avoid being overly fatigued.</p>
(c) Common activities	<p>For the first few days, we will be travelling in a chartered bus most of the day and sometimes through winding roads as we cross mountain ranges. There will be some field course activities on the bus but we tend to schedule such activities for stretches of flatter, straighter roads. Some students may feel motion sickness during bus travel. Over-the-counter anti-nausea medication (e.g., Gravol) can reduce discomfort.</p> <p>The course has multiple boat trips planned and some trips to land-based observation sites and for other course-related activities.</p> <p>When we are not doing field activities (at nights, during poor weather and during travelling), students have more typical “in-class” activities (such as lectures, student presentations, projects and assignments, etc.). During the second half of the course, students will spend more time conducting their own field research projects (in groups). There will be a number of group projects/assignments for this course, and students are expected to treat each other respectfully and professionally during these activities. Group work is part of doing science, and it is good to get comfortable with this sooner rather than later.</p> <p>There are NO course activities that will require entering the water.</p>

(d) Weather, dehydration, & biting insects	<p>May is a transitional weather month in the region. It can feel like mid-late spring or like the summer heat waves we get in southern Ontario. It is often humid and hot (>30oC and near 100% humidity) with a very strong sun. Wearing clothing (UV shirt, pants, hats, etc.) that protects you from the sun and drinking plenty of fluids (and regularly) will reduce the risk of heat issues.</p> <p>Biting insects are generally not an issue in our field work sites but can be more of any issue when they are allowed to enter student accommodations. Closing doors and having a bed net or using repellents will reduce insect bites.</p>
(e) Toxic/poisonous, wildlife/ plants	<p>Although the probability is very low, we may be in an area where there are venomous snakes so some care is needed when walking around (e.g., avoid walking in tall grass or stepping into areas where you cannot see the ground clearly, etc.).</p>
(f) Sleeping, washroom & laundry facilities	<p>Students will be in shared hotel-type accommodations (2-4 students per room) while we are travelling around but will be in more dormitory style accommodations with simple kitchen appliances when we are more settled. Rooms will be shared with other students and while bathrooms are shared, shower stalls are separated. A light sleeping bag or sleeping bag liner is always good to bring. A mosquito bed net is also useful to have because in some years, even a few biting insects can disrupt sleep.</p> <p>There are coin-operated washer and dryer machines for laundry.</p>
(g) Meal plans & food allergies	<p>Most meals are included in your course fees except for 2-3 days when you will have more freedom to choose (these meals will covered by yourself). Please inform us of any food allergies or issues.</p>
(h) Non-academic responsibilities	<p>It is your responsibility to keep your accommodations clean – no cleaning service is provided.</p>
(i) Degree of isolation	<p>In general, we will be fairly remote by local standards but not remote from people as compared to some other field course sites. You will be able to stay connected through the internet (or cell phone service if you choose to pay for this service) and will have power almost everywhere (except for the short periods when we are in transit or doing field work).</p> <p>We are not very far from a hospital or medical clinic.</p>
(j) Alcohol & drugs	<p>The consumption of alcoholic beverages is not permitted during course time and within the students' accommodations. The same holds true for drugs of any kind (unless prescribed by your medical doctor for a medical condition). Note that some drugs may be illegal to possess or bring into Taiwan so you will need to consult your medical physician for any drugs that you plan to bring with you. Even though the use and possession of marijuana may be legal in Canada, this does not hold true for Taiwan, where marijuana use and possession remains a serious crime (in Taiwan, the possession or trafficking of banned drugs can be punishable by death).</p>
(k) Vaccinations/ Insurances	<p>Tetanus (update if needed) – highly recommended.</p> <p>Hepatitis A&B – highly recommended.</p> <p>There are other diseases that are possible but with low probability (e.g., dengue fever, Japanese encephalitis, etc.). You should consult your physician on what he/she thinks you should be vaccinated against. Some diseases are present but rare and may not be worth the cost or side-effects of the vaccination (again, best to consult your physician). Ultimately, which vaccinations you decide to get is up to you.</p> <p>It is highly recommended that students purchase some kind of travel medical insurance. How much and if you decide to purchase insurance will be ultimately up to you to decide.</p>

(l) Social Situations	<p>For most of the course you will be in close quarters with your fellow classmates so you should be comfortable living in this situation. You are expected to be respectful, polite, relatively clean and hygienic, and friendly with your classmates.</p> <p>In addition to the shared living spaces, much of the course involves group work. Therefore, you are expected to be willing and ready to be a good group member. This means keeping a positive attitude throughout the groups' inevitable "ups and downs", not being too dominating nor too submissive during group interactions, respecting the ideas of others and giving everyone the opportunity to contribute. It also means handling difficult people and situations in a mature and professional manner.</p> <p>The primary language used in Taiwan is Mandarin Chinese. As foreigners, you are likely to attract the attention of locals. There are likely to be people watching you in public even if you don't think people are watching you. However, the locals are very friendly and helpful.</p> <p>The unfamiliar conditions of a field course can sometimes take students out of their comfort zone, to the point where they forget and/or don't know how to best take care of themselves. Students need to be aware of this, and make sure that they act accordingly. This includes things such as physical maintenance (staying hydrated and nourished, getting enough sleep, for example), as well as mental maintenance (staying positive and engaged in the course). It also means all are expected to aid in the maintenance of the functioning of the group (e.g., being accepting of alternative points of views and personalities, and respecting other people and their ideas). Also, remember that as students in a foreign country, you are representing Canada, your University, and your professors. You should choose the way you act accordingly, and always be mindful that you are representing more than just yourself in these locations.</p>
(m) Final Comments	<p>Although this course is intense, almost all students who have taken this course have found it an experience of a lifetime and very worthwhile. This course's longevity and non-stop continuity since it was first offered in 2007 and high-praise and recommendations by former students are testaments of the course. We have a high instructor-to-student ratio and all instructors are very active in dolphin/whale research in various parts of the world. The course often opens the eyes of students to the real world of science and scientists as well as the state of the environment in an area that is geographical distant from, but at the same time closely linked to, Canada. Most students (even if their background is from the region) will see animals and things that they never knew existed, including a good chance of seeing some species that even many dolphin/whale biologists have never seen. A relatively large proportion of the students of this field course have continued on into graduate studies and many in dolphin/whale biology.</p>