

**UNIVERSITY OF GUELPH**  
**Ontario Universities Program in Field Biology**

<b>Course Title:</b>	<b>Marine Biology and Oceanography</b>						
<b>Instructor(s):</b>	James Ballantyne jballant@uoguelph.ca						
<b>Dates:</b>	3 August – 17 August 2019						
<b>Location:</b>	St. Andrews New Brunswick						
<b>Cost:</b>	~\$2000 approx.						
<b>Prerequisites:</b>	University Ecology or Aquatic Course University Invertebrate Biology Course University Statistics Course						
<b>Enrolment*:</b>	20(15)						
<b>Course Description (brief):</b>	A two-week course held at the Huntsman Marine Science Centre, St. Andrews, New Brunswick. Aspects of the ecology, behaviour, physiology, biochemistry and genetics of marine organisms will be studied as well as basic oceanographic techniques. The course will include group exercises to study various intertidal and subtidal environments as well as boat cruises to collect plankton, benthic invertebrates, marine fish and to observe marine mammals. The course provides excellent opportunities for students to familiarize themselves with state-of-the-art techniques involved in various branches of marine biology and oceanography and conduct an individual research project.						
<b>Evaluation:</b>	<table style="width: 100%; border: none;"> <tr> <td style="padding-right: 20px;">Group Project</td> <td style="text-align: right;">40 %</td> </tr> <tr> <td>Individual Project</td> <td style="text-align: right;">50 %</td> </tr> <tr> <td>Participation</td> <td style="text-align: right;">10 %</td> </tr> </table>	Group Project	40 %	Individual Project	50 %	Participation	10 %
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Deadline to apply is **Feb 8, 2019**.

If interested please complete the application form and submit it to the OUPFB course coordinator at your school.  
Deposit of \$350 is due at the time of registration.

Tuition at your home institution is *in addition* to any field module costs.

Students who drop a field course should not expect a refund of any field course costs.

Students are encouraged to purchase cancellation insurance if airline tickets are required.

Students are responsible for all fees incurred by the home or host university due to any bounced cheque.

**An Average Day – What to Expect**

(a) Daily timeline	An average work day in the first week (e.g., 7:00 AM breakfast, 8:00 AM field work rain or shine, 12:00 lunch, 1:00 continuing field work, 6:00 dinner, 7:00-10pm class lectures, lab work, individual projects. First week involves group projects that are scheduled according to the tides. Some early departures may occur.
(b) Work habitat & Physical exertion	The fieldwork habitat involves muddy, rocky, or slippery intertidal areas. Boat excursions may involve rough seas.
(c) Common activities	<ul style="list-style-type: none"> <li>• common activities (e.g., boat travel over open ocean, walking in slippery habitats)</li> <li>• associated risks (e.g., sea sickness, sunburn, animal spines (non-poisonous).</li> </ul>
(d) Weather, dehydration, & biting insects	<ul style="list-style-type: none"> <li>• weather conditions likely to be encountered (strong sun, high UV, rain, strong wind).</li> </ul>
(e) Toxic/poisonous, wildlife/ plants	Lyme disease ticks occur in area but no encounters yet Fish and sea urchin spines – gloves worn
(f) Sleeping, washroom & laundry facilities	Dorm rooms are shared with one other student (same sex). Bedding is provided, but towels etc. are not. Floors are generally segregated by gender. Each floor has a shared bathroom / showers.  <ul style="list-style-type: none"> <li>• Coin operated washing/laundry facilities are available</li> </ul>
(g) Meal plans & food allergies	Any food sensitivities / allergies should be communicated to course personnel as soon as possible. Vegetarian meals may be accommodated by the dining hall staff, though strict vegans are unlikely to be satisfied (in our opinion and experience). Other requests for dining accommodations will be addressed individually, but keep in mind this is a field station not a restaurant.
(h) Non-academic responsibilities	
(i) Degree of isolation	The town of Saint Andrews is a 15-20-minute walk from the station. It has grocery, pharmacy, post office, souvenirs, hardware, and restaurants. A small health centre is in town, the closest hospital is the Charlotte County Hospital in Saint Stephen NB.
(j) Alcohol & drugs	Alcohol is permitted in dorm rooms only
(k) Vaccinations/ Insurances	No additional vaccinations needed
(l) Social Situations	Shared dorm rooms.
(m) Final comments	This is a great course to learn techniques in marine biology and oceanography and develop interpersonal skills.