

WESTERN UNIVERSITY

Ontario Universities Program in Field Biology

Course Title:	Experimental Studies in Marine Biology	
Instructor(s):	James Staples (jfstaple@uwo.ca) Contact: Brenda Beretta (bberetta@uwo.ca; 519-661-2111 x 82555)	
Dates:	August 19 – September 4, 2017	
Location:	Huntsman Marine Sciences Centre, St. Andrew's, New Brunswick (www.huntsmanmarine.ca/ ; http://standrewsbythesea.ca/)	
Cost:	\$1900 (\$350 deposit to home university, \$1550 balance). Includes: all travel to/from St. Andrew's (by van), accommodations and on-site meals. Balance: due to Western by mid-July	
Prerequisites:	Completion of two years in a Biology/Zoology program, including a course in statistics/experimental design (instructor's discretion). Antirequisite: University of Guelph ZOO 4300 (Marine Biology and Oceanography). NOTE: Daily activities will include walking up to 2 km, often over wet, uneven, slippery, algae-covered rocks. Some exercises require being aboard a 15m research boat for up to 8 hours at a time. We will work outdoors in all types of weather (except lightning or other dangerous conditions). Our field schedule is dictated by the tides, so we will likely work very early in the morning and late into the evening.	
Enrolment:	Maximum 15, minimum 7 (3 reserved for Western)	
Description:	This experiential learning adventure will introduce you to the flora and fauna of the Quoddy Region of the Bay of Fundy. We will work mostly in the extensive intertidal zone with its abundant, diverse communities of invertebrates and macroalgae. We will also spend a limited amount of time observing and discussing marine fish, birds and mammals. You will learn how environmental and biological processes shape the assemblage of organisms that inhabit different marine habitats. You will also develop several skills in oceanographic sampling (water quality, dredges, grabs, trawls, plankton tows), surveying, organism identification (using scientific names), quantitative ecological sampling, experimental design and fundamental data analysis. We will also observe how human activities affect this very productive ecosystem. Our days are long and intense, but your learning experience will be enhanced by diverse classmates, great facilities and a beautiful setting, first settled by Europeans in 1783.	
Evaluation:	The first week is devoted to observations, identification and quantitative sampling in the intertidal zone and on the HMSC vessel. Students record their individual observations in field logbooks, using the observations and data to complete assignments. The second week is devoted to research projects based in the laboratory and/or field. A project report is required from each student approximately 5 weeks after completion of the course.	
	<i>Pre-course</i> on-line quiz based on assigned readings Assignments, completed <i>on-site</i> , based on field observations and data collection <i>On-site</i> laboratory and field exams based on biological knowledge, identification (using scientific names) and collection of organisms studied during the first week Performance and report (in the style of a journal article) based on the second week's project (due approx. 5 weeks after course ends)	5% 20% 40% 35%

***\$350 Deposit is due at 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.