

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) Biology, Univ. of Western Ontario, London , ON N6A 5B7; 519-661-2111 x 82555, fax 519-661-3935																					
Dates:	Saturday 18 August – Monday 3 September, 2018																					
Location:	Huntsman Marine Sciences Centre, St. Andrew's, New Brunswick																					
Cost:	\$1950 (\$350 deposit at registration; \$1600 to UWO by mid-July). Includes travel to/from St. Andrew's (by van, all in Canada), accommodations and on-site meals.																					
Prerequisites:	completion of two years in a Biology/Zoology program, including a course in statistics/experimental design (instructor's discretion). Anti-requisite: University of Guelph ZOO 4300 (Marine Biology and Oceanography).																					
Enrolment:	15 (4 reserved for University of Western Ontario), minimum 7																					
Description:	<p>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 some 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 useful skills including 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.</p> <p>Daily activities include walking up to 2 km, often over wet, uneven, 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.</p> <p>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 and data. The second week is devoted to research projects based in the laboratory and/or field.</p>																					
Evaluation:	<p>(i) pre-course on-line quiz based on assigned readings (5%) (ii) assignments, completed on-site, based on field observations and data collection (20%), (iii) on-site laboratory and field exams based on biological knowledge, identification (using scientific names) and collection of organisms studied during the first week (40%), (iv) performance and report (in the style of a journal article) based on the second week's project (35%; due approx. 5 weeks after departing St. Andrew's).</p> <p>UWO uses the following criteria to guide instructors on how to evaluate undergraduate performance.</p> <table border="1"> <thead> <tr> <th>Letter Grade</th> <th>Mark</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>A⁺</td> <td>90-100</td> <td>One could scarcely expect better from a student at this level</td> </tr> <tr> <td>A</td> <td>80-89</td> <td>Superior work which is clearly above average</td> </tr> <tr> <td>B</td> <td>70-79</td> <td>Good work, meeting all requirements, and eminently satisfactory</td> </tr> <tr> <td>C</td> <td>60-69</td> <td>Competent work, meeting requirements</td> </tr> <tr> <td>D</td> <td>50-59</td> <td>Fair work, minimally acceptable</td> </tr> <tr> <td>F</td> <td>below 50</td> <td>Fail</td> </tr> </tbody> </table>	Letter Grade	Mark	Description	A ⁺	90-100	One could scarcely expect better from a student at this level	A	80-89	Superior work which is clearly above average	B	70-79	Good work, meeting all requirements, and eminently satisfactory	C	60-69	Competent work, meeting requirements	D	50-59	Fair work, minimally acceptable	F	below 50	Fail
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***\$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.