LAKEHEAD UNIVERSITY

Ontario Universities Program in Field Biology

Course Title:	**Aquatic Ecology and Experimental Limnology**	
Instructor(s):	Dr. Michael Rennie (mrennie@lakeheadu.ca) Dr. Joe Carney (jcarney@lakeheadu.ca)	
Dates:	August 20 – September 1, 2017	
Location:	The IISD-Experimental Lakes Area, Northwestern Ontario (1-807-226-5162). Students are responsible for arranging travel to and from ELA. IISD-ELA shuttle may be available from either Winnipeg or carpooling from Thunder Bay, please contact the course instructor for details.	
Cost:	$1500 ($350 deposit to home university, $1150 balance). NOTE: Up to six (6) academic / needs-based bursaries are available to Lakehead University students to help cover approximately 50% of course fees. Please contact the instructor for details. **Includes**: accommodations, meals, use of boats, research facilities and supplies. **Balance:** required by **Aug. 1, 2017** **Cancellation and refund policy: No refunds on course fees if dropped.**	
Prerequisites:	Previous courses in ecology and statistical analysis will be an asset. **NOTE: All registrants in the course must be able to swim, be physically fit for hiking and possibly overnight camping. Students with a Pleasure Craft Operator's Card may be asked to operate boats with outboard motors.**	
Enrolment:	12 students (2 reserved for Lakehead)	
Description:	This two-week field course provides a general background in limnology and aquatic ecology, and emphasizes the application of experimental ecology in helping address environmental issues related to water and aquatic resource management. Students will be introduced to common limnological sampling techniques, including sampling for basic parameters including temperature and oxygen; methods for collecting water at discrete depths for chemical analysis; collection and preservation methods for phytoplankton, zooplankton, invertebrates and fishes; organism identification, and capture-mark-recapture methods for estimating fish abundance. Students will be exposed first-hand to experimental methods in ecology, including whole-lake experiments and the opportunity to work with data from past experiments as part of their independent research projects. During the first day of the course, students will present a 20-minute seminar and provide a brief written summary on a pre-assigned topic in applied aquatic ecology, and propose an experimental approach that could effectively addresses the topic. Students will be assigned to research teams to conduct field experiments or comparative studies to address significant ecological questions. Each student must submit a scientific manuscript based on the data collected by the research team, one month after the course is completed.	
Evaluation:	Presentation at beginning of course Field notebook Course/project participation Final presentation/Write up of field research project Animal Care approval and certification Quiz during field course	15% 15% 20% 40% 5% 5%

***$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.