

**Marine Biology & Oceanography Field Course  
(ZOO\*4300)**

**July 27 – Aug 10, 2024**

**Beren Robinson ([berenrob@uoguelph.ca](mailto:berenrob@uoguelph.ca))**

**Sheri Hincks ([shinks@uoguelph.ca](mailto:shinks@uoguelph.ca))**



This is an introductory presentation of the marine biology and oceanography field course offered by the University of Guelph, Department of Integrative Biology. Welcome to our students from Guelph and from other Ontario universities participating through the OUPFB. At the moment the instructional staff have not been identified and so I will be the contact person for the course.

Beren Robinson, [berenrob@uoguelph.ca](mailto:berenrob@uoguelph.ca)

Matt Cornish, [mcornish@uoguelph.ca](mailto:mcornish@uoguelph.ca)

Sheri Hincks, [shincks@uoguelph.ca](mailto:shincks@uoguelph.ca)

**Dates:** Sat, July 27 to Sat August 10, 2024

**Where:** Huntsman Marine Sci. Centre, St. Andrews, NB

**Course Cost: ~\$2600 (approx.) 350\$ deposit + 2250\$ balance**

**Transportation (cost):** independent travel to

St. Andrews: Drive ~18 hours

Fly into St. John Sat. July 27 midday (~500\$ 1-way)

Dr. Huntsman  
1<sup>st</sup> DFO director  
St. Andrews

**Included:**

Food and Accommodation,  
Field trips,  
Lab space and equipment

**Must be Registered student (tuition cost)**

In fall term after field course

(Summer registration not possible)



Here is the basic information.

Note that the cost of 2600\$ has not been finalized at this time. It also does not include travel to and from NB. You will book your own flight information in/out of St. John airport although we will provide information about this to students should you be registered in the course.

Alternatively you can drive. Students in the past have carpooled successfully – about 18 hrs (1500km) from Guelph to St. Andrews.

The course cost covers room and board at the field station, lab space and equipment and field trips in NB.

Students must be registered university students. So, total cost = course cost + transportation cost + registration cost.

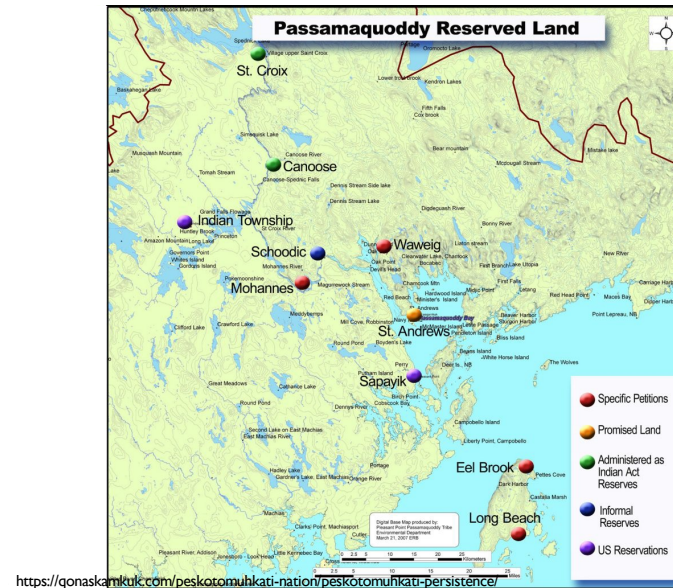
Typically, students are registered for the academic credit in the fall term following the field component. This saves you registration costs as long as you are registered to take other courses in that fall term.

For coop students on work term in the fall, there is also the option to be registered in

the winter term (2 terms after) the summer field component. Summer registration is not possible because we can't complete, submit and grade the final research report in time to meet the summer grade submission deadline (and would incur an additional university registration fee).



St. Andrews is located in Passamaquoddy Bay on the wester edge of the opening to the Bay of Fundy, a huge bay with the largest tides in the world. Interesting fact, the tidal flow in or out of Fundy bay exceeds the combined daily flow of all rivers emptying into the world ocean every day!



The Peskotomuhkati are the indigenous peoples of this area, and directly referenced by the name of this ecosystem.

A key part of this field course is to learn something about the Peskotomuhkati and their relationship to this extraordinary area.

The first thing to learn is that the name Peskotomuhkati means 'People who spear pollack'. Pollack is a pelagic fish species that used to fill this bay but are now locally extirpated. The Peskotomuhkati have a deep history here and are trying to get First Nations status with the Canadian and provincial governments. They are also fighting to revive the natural resources of this ecosystem.

A key part of this course will be to learn about these people and their relationship to the water and land.

# Course Structure

**Pre-field:** Zoom info meetings  
Individual research proposal, Individual reflection

**Field wk 1: 4 group exercises: Intro. to Intertidal**  
1. Mud intertidal  
2. Mixed Mud and Rock intertidal  
3. Demersal Trawling  
4. Organismal infographic with Indigenous knowledge

**Field wk 2: Individual research project: Organism and its environment**  
1. Lab or field based  
2. Observational (comparative) or experimental  
3. Physiology or ecology

**Post-field:** Individual research project  
Individual reflection

There are four parts to the course structure:

Prior to arrival in June and July, we hold remote Zoom/Teams meetings to assist you in developing an individual research project proposal about the research you will perform in week 2 of the field component. You will also prepare to meet members of the the local indigenous Passamaquoddy community by doing a bit of research and reflection about their historical presence in this ecosystem which goes back to the end of the last glacial period 11,000 years ago.

The first field week has students working in groups and contributing data for all to use about conditions and diversity in various intertidal zones and the pelagic zone (water column and deep benthos). We will end off the week with a marine mammal field trip.

The second field week, you will undertake an independent field/lab research project examining an interaction between the environment and animal biology on either Invertebrates or some fish. We will all be working flat out from early in the morning to after dinner at night especially during the 2<sup>nd</sup> week IRP phase.

After the field component of the course you will be working on analyzing and writing up your IRP, reflection pieces.

## Evaluation

### **4 Group Exercises (25%):**

Species diversity and distribution in the intertidal and marine habitats of Passamaquoddy Bay  
Due end of 1st week of course on site (Aug.3).

### **Individual Reflections (25%):**

Indigenous perspectives (prior to arrival & after leaving field cmpnt.)  
Natural history

### **Individual Project (50%):**

Proposal: June-July (10%) (due prior to arrival in field)  
3-min. thesis oral: end Sept. (5%) (after field cmpnt.)  
Final research paper: mid Sept. (35%) (after field cmpnt.)

The course outline will be on the course link website. See it for details, resources, expectations, due dates, etc. The outline will have detailed grading breakdown.



**Application procedure**

Application form on IB dept. website > Undergraduate programs > Field Courses

Application and deposit check to Caitlin Brookbank, IB dept.  
office - SSC2482, (519) 824-4120 ext.52756  
email: cbrookba@uoguelph.ca

**Prerequisites**

University Aquatic Biology and/or Ecology Course  
University Statistics Course  
University Invertebrate Zoology Course recommended

\$350 deposit cheque: cashed upon acceptance into course  
GPA, major program considered if overload

All IB majors welcome, priority to Marine and Freshwater  
Biology and 3+ years. Will be a waiting list.

After application, faculty instructor reviews applications and determines acceptance. They you will receive email offering you the field course. If you accept, the deposit check is cashed. You can't come on the course unless we have received your payments.

**Jan 8<sup>th</sup> – Feb. 2<sup>nd</sup>**

Hand in application and deposit to Caitlin Brookbank Rm 2482 SCI  
Application on IB website > Undergraduate Program > Field  
Courses

**Late Feb** Students informed of acceptance

**Spring - mid summer (June-July)**

Project development and submission of draft, feedback and  
revised project proposal

**Saturday, July 27<sup>th</sup> – Saturday, August 10<sup>th</sup>**

Field Course in NB.

**September 2024**

Individual research project oral 3-min. thesis presentation.  
Final written individual research project submitted

This has been the rough timeline for activities related to the course. If you have questions, contact us (see email on the first page above).  
All written materials will be handed in through the dropbox feature on course link.



You will be immersed in marine biology and ecology on course. We have a great time on course when students are engaged and committed to learning! We will be going flat out every day often from before 7am and after 10pm. Our lives will be ruled by the ocean tides, not your sleep schedule!

The weather is variable, so see the suggested packing list on course link.

The conditions are variable and require you to be prepared, fit and sensible. See descriptions of activities on the course outline (courselink).



Rain or shine...



We stay at a world class research station in the pleasant town of St. Andrew's NB, which is within walking distance of the field station. Room and board is dorm and eating hall style.

We can accommodate diet restrictions.



Demersal and benthic trawling. Sometimes we encounter whales and pirates...



Our indoor research space.





## Interesting People

Cultural &  
Professional  
contacts



Interesting people: Chief Hugh, UoG alumni now working for DFO in St. Andrews.



