**Marine Biology & Oceanography Field Course**
**(ZOO*4300)**
**July 29 – Aug 12, 2023**
**Dr. Beren Robinson & Others**

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.
Your instructors are,
Beren Robinson,
berenrob@uoguelph.ca
Matt Cornish, mcornish@uoguelph.ca
Sheri Hincks, shincks@uoguelph.ca

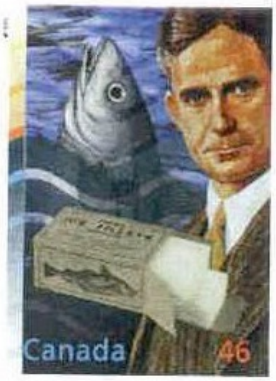
**Dates:** Sat, July 29 to Sat August 12, 2023
**Where:** Huntsman Marine Sci. Centre, St. Andrews, NB

**Course Cost: ~$2200 (not yet final)**
**Transportation (cost):** independent travel to St. Andrews: Drive ~18 hours
Fly into St. John Sat. July 29 midday (~500$?)

**Included**:
Food and Accommodation,
Field trips,
Lab space and equipment

**Must be Registered student (tuition cost)**
Typically in fall term after field cmpnt.
(Official summer registration rare)

Dr. Huntsman
1st DFO director
St. Andrews




Here is the basic information.
Note that the cost of 2200$ 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.
Only in very rare circumstances are students officially registered in the summer term when the field component actually occurs. This is because it is difficult to complete, submit and grade the final research report in time to meet the registrars timeline – and of course incurs an additional university registration

fee then.


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.


https://qonaskamkuk.com/peskotomuhkati-nation/peskotomuhkati-persistence/

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: 3 group exercises: Intro. to Intertidal structure**

1. Rocky intertidal
2. Mud intertidal
3. Mixed beach intertidal
4. Pelagic
5. Sublittoral macrofauna

**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, we hold various Zoom 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 be responsible for self education about the local indigenous Passamaquoddy community and its history here.

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 a field/lab research project examining an interaction between the environment and animal biology on either Invertebrates or Vertebrates We will all be working flat out from early in the morning to after dinner at night especially during the 2nd week IRP phase.

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

## Evaluation

### 3 Group Exercises (15%):

Species diversity and distribution in the intertidal and marine habitats of Passamaquoddy Bay
Due end of 1st week of course (Aug.5).

### Individual Reflections (40%):

Indigenous perspectives (25%) (due prior to arrival in field)
Natural history (15%) (due end of field cmpnt.)

### Individual Project (45%):

Proposal: Late May (10%) (due prior to arrival in field)
3-min. thesis oral: mid Sept. (10%) (after field cmpnt.)
Final research paper: late Sept. (25%) (after field cmpnt.)

The full course outline is now on the course link website. See it for details, resources, expectations, due dates, etc. The outline has all of the details about grading.

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

Application and deposit check to Ryan Kenwell, IB dept. office - SSC2484, (519) 824-4120 ext.56094
email: rkenwell@uoguelph.ca

**Prerequisites**
University Invertebrate Zoology Course
University Aquatic Biology and/or Ecology Course
University Statistics Course

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

All IB majors welcome, but Marine and Freshwater Biology have higher priority. 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 9th – Feb. 10th**
Hand in application and deposit to Ryan Kenwell Rm 2484 SCI
Application on IB website > Undergraduate Program > Field Courses

**Late Feb** Students informed of acceptance

**Winter semester**
Organizational Zoom sessions – before & after finals winter term

**Spring - mid summer**
Project development and submission of proposal – Late May

**Saturday, July 29th – Saturday, August 12th**
Field Course in NB.

**September 2023**
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. Unfortunately we did not organize an on-campus session to introduce the course this year. 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.


Sub-littoral and benthic trawling.


Our indoor research space.


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