Dalhousie Integrated Science Program

Science Immersion in your first year at Dal

disp.science.dal.ca
Director, Dr. Gabrielle Tompkins
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Integrated Science Program (DISP) est. 1993

• Prepare to enter any BSc program in second year
• Gain authentic scientific **research experience**
• Explore connections between disciplines in integrated activities
• Engage in team-based learning
• Be a part of a **small learning community** (80 students max)

Peggy’s Cove Intertidal Ecology Field Trip, Fall 2017
DISP students are scientists in training

Field, lab and research project data is analyzed and presented in scientific writing, presentations and posters
Field trips to unique coastal sites

Beach erosion

Carboniferous fossils

Bogs and Barrens

Rocky Intertidal
DISP = SCIE1506/1507 + Philosophy + co-requisites

<table>
<thead>
<tr>
<th>Integrated Science I and II</th>
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<tr>
<td><strong>Fall (SCIE 1506.09)</strong></td>
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<tr>
<td>• Biology</td>
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<td>• Psychology</td>
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<td>• Statistics</td>
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<td><strong>Winter (SCIE 1507.09)</strong></td>
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<td>• Biology</td>
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<td>• Psychology</td>
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<td>• Earth Sciences</td>
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**F&W: Writing in Science (Winter research projects)**

+ **Fall**
  • Philosophy (Ethics in Science)

  + Chemistry (6 credits)
  + Calculus (3 or 6 credits)

*Physics majors should discuss options with the DISP Director*
How is the program integrated?

- Data from labs, field trips back to Statistics for analysis
- Coordinated teaching on topics spanning disciplines
- Integrated sessions (visiting scientists/multiple DISP profs)
- Field trips explore systems from multiple perspectives
Integrated sessions

- Research design
- Science reporting
- Hurricanes
- Invasive species and rewilding
- Evolution of the atmosphere
- Algal technologies
- Why does mapping matter?
- Biomechanics
- Hunger, feeding, motivation
- CRISPR and gene editing
- History of life, and everything
- Neurochemistry and brain repair
The Research Project
Highlight of the DISP experience

- 10 weeks in a host lab (3 hrs/week) working on a unique question
- Brings together training in writing, data analysis, core concepts
Research in first year university

- Launching into future opportunities
- Explore fields of interest
- Train for honours
“The research project has definitely been one of the biggest highlights of my first year. This project has opened up so many opportunities for me and has given me experience in academic research that I would never have gotten otherwise” Kate Arpin

“Through doing research with the hospital, my supervisors, and the Medical Physics department, I was able to make many connections with people in very interesting fields” Mitchell MacKinnon
“I learned from this experience that research is time consuming and sometimes frustrating, but it is so worth it when the project is over and you can share what you’ve found and look back at all you have achieved”. Jamie Stark
April Research Symposium – talks and posters
Placements in Dalhousie or NRC labs
DISP is a team based program
Research, labs, field trips, in class activities
In DISP classroom

Respect among peers and profs

Attentiveness

Accountability

Curiosity, free exchange of ideas

Collaborative spirit

Active learning
Community of DISP Mentors and Mentees
Breakfast DISP student and mentor meetup
Student Workload

30-36 credits (30 is a full course load of 5 classes/term)

Busy program; but lots of low stakes assessments
(i.e. 0.2 marks for each pre-lecture psychology quiz)

Workload managed by:
• Reducing redundancies between DISP classes
• Coordinating test and assignment dates
• Group submission of assignments during class time
Admission criteria

Grade 12 or equivalent average 80% or higher
➢ 80% Mathematics
➢ 75% in English
➢ 75% in Grade 12 Chemistry
Grade 12 Biology is recommended, but not required.

Incoming average of most students is > 90%.

Must separately apply and be accepted to the BSc at Dalhousie.
Apply to BSc then DISP (supplemental application)
Deadline: April 15th

AMISSIONS

How to apply

Apply to Dalhousie University for the Bachelor of Science degree program using the Undergraduate Application for Admission [PDF](https://www.dal.ca/faculty/science/integrated-science-program/about/admissions.html) (you may also apply online). Under Program Selection on the application write Bachelor of Science and under Additional Information check off YES for the Dalhousie Integrated Science Program.

You’ll also need to fill out this additional online application form for the Integrated Science option: www.dal.ca/ISapplication