



# ACENET

*accelerate discovery*

## Upcoming Training

Be sure to check our [website](#) regularly, as additional training sessions and events of interest will be posted as they are scheduled.

### **ACENET and Ocean Tracking Network: Introductory Python for Ecologists**

**2, 9 and 16 March, 1:00-4:00pm Atlantic**

Join ACENET and [Ocean Tracking Network \(OTN\)](#) in our Introductory Python for Ecologists workshop series. Over three weeks, we will explore data analysis and visualization with Python, based on the Data

Carpentry Lessons. Each week will build off the previous one – if you miss a week, check out the previous link to follow along! No prior coding experience necessary. We will start with basic Python syntax and the Jupyter notebook interface. Then, we'll teach you how to import CSV files using the Pandas package to manipulate and summarize data frames, and cover a brief introduction to plotting. The last lesson will demonstrate how to work with databases directly from Python. Participants will be encouraged to help one another and to apply what they have learned to their own research problems. [DETAILS & REGISTER](#)

### **C as a Second Language**

***4 March, 12:00-4:00pm Atlantic***

This workshop will be a hands-on introduction to the C programming language. A great deal of high-performance computing software is written in C, but few universities offer courses in the language any more. If you have to work with "legacy code" written in C, adding features, porting to a new machine, or patching errors, or if you need to write user-defined functions for engineering packages such as Fluent, then this workshop is for you. Participants must be familiar with another programming language. [DETAILS & REGISTER](#)

### **C++ as a Second Language**

***18 March, 12:00-4:00pm Atlantic***

This workshop will be a hands-on introduction to the C++ programming language building off the previous workshop's introduction to C. Participants must have taken "C as a Second Language" or have had prior experience with C programming. A great deal of high-performance computing software is written in C++, but few universities offer courses in the language any more. If you have to work with "legacy code" written in C++, adding features, porting to a new machine, or patching errors, or if you need to extend packages like OpenFOAM which are written in C++, then this workshop is for you. C++ was designed as an extension of the C language but has its own distinct idiom or style. This workshop assumes that you already know C to the level reached in the ACENET workshop, "C as a Second Language". [DETAILS & REGISTER](#)

### **Modern Fortran for Scientific Programming**

***1 April, 12:00-4:00pm Atlantic***

This workshop will be a hands-on introduction to the FORTRAN programming language. FORTRAN, one of the initial high-level programming languages, continues to be an excellent option for high-performance computing due to its superb performance. The newer versions of FORTRAN offer many modern features, including object-oriented programming capabilities to programmers. This course will cover some of these features. Participants must be familiar with another programming language. [DETAILS & REGISTER](#)

### **Molecular Dynamics Workshop**

***6, 13, 20 and 27 April, 1:30-3:30pm Atlantic***

This workshop is designed to be a practical introduction to the method of molecular dynamics simulations. It is intended for students with no prior knowledge. Students will be guided to using various structure prediction software to model missing protein and RNA segments, AMBER and NAMD software for performing simulations of biomolecular systems, VMD for visualizing trajectories and manipulating

PDB files, and Python for analyzing and plotting simulation data. The workshop will be conducted in four two-hour hands-on sessions over two weeks, consisting of molecular dynamics basics, visual molecular dynamics, building complex simulation systems and molecular dynamics simulation and analysis. [DETAILS & REGISTER](#)

## **Digital Humanities Summer Institute (East) - DHSI East**

**26 - 30 April**

The first DHSI-East course will be on databases. It is aimed at humanists and those with no prior database experience. Databases are the driving engine behind a large number of classic and cutting-edge digital humanities applications. DH tasks -- such as wielding enormous GIS maps, aggregating the social media of wikis and blogs, building large archival repositories and even generating the semantic web -- all depend on some form of database. This course will introduce the inner workings of databases and demonstrate hands-on work with participants' own data sets to learn more about concepts like data normalization, relational table design, Structured Query Language (SQL), and effective long-term data management. [DETAILS & REGISTER](#)

## **Programming Workshop: Unix Shell, Version Control and R**

**4, 11, 18 and 25 May, 12:00-4:00pm Atlantic**

This is a beginner level workshop series that is hands-on, covering the fundamentals of R, including data types, conditional statements, loops and functions, as well as program design, version control, data management, and task automation. Participants will be encouraged to help one another and to apply what they have learned to their own research problems. The goal is to teach the practical knowledge needed to start programming, debugging and using R in everyday tasks. [DETAILS & REGISTER](#)

## **Programming Workshop: Unix Shell, Version Control and Python**

**6, 13, 20 and 27 May, 12:00-4:00pm Atlantic**

This is a beginner level series that is hands-on, covering the fundamentals of Python including data types, conditional statements, loops and functions, as well as program design, version control, data management, and task automation. Participants will be encouraged to help one another and to apply what they have learned to their own research problems. The goal is to teach the practical knowledge needed to start programming, debugging and using Python in everyday tasks. [DETAILS & REGISTER](#)

## **From Our Partners**

The following workshops are being offered by our regional partners.

**WestGrid: Linking Databases to Code Repositories with Throughput**, 3 March, 2:00-3:00pm

Atlantic [DETAILS & REGISTER](#)

**Calcul Québec : Introduction à la programmation avec Python**, le 10 mars, 10h00-13h00 AH

[DÉTAILS ET S'INSCRIRE](#)

**Calcul Québec: Introduction to Programming with Python**, 17 March, 10:00am-1:00pm

Atlantic [DETAILS & REGISTER](#)

**WestGrid: Parallel Programming in Julia**, 17 March, January, 2:00-3:00pm Atlantic [DETAILS & REGISTER](#)

**Calcul Québec : Introduction to GPU Programming with Python**, le 18 mars, 10h00-13h00 AH [DÉTAILS ET S'INSCRIRE](#)

**Calcul Québec : Gestion des révisions avec Git**, le 24 mars, 10h00-13h00 AH [DÉTAILS ET S'INSCRIRE](#)

**Calcul Québec: Introduction to Version Control with Git**, 31 March, 10:00am-1:00pm Atlantic [DETAILS & REGISTER](#)

**WestGrid: Exploring the State of a Slurm Cluster**, 31 March, 2:00-3:00pm Atlantic [DETAILS & REGISTER](#)

**Calcul Québec : Analyse de données avec Python**, le 6 avril, 10h00-13h00 AH [DÉTAILS ET S'INSCRIRE](#)

**Calcul Québec: Data Analysis and Visualization in Python**, 8 April, 10:00am-1:00pm Atlantic [DETAILS & REGISTER](#)

**WestGrid: Introduction to Using Fastai**, 14 April, 2:00-3:00pm Atlantic [DETAILS & REGISTER](#)

**WestGrid: NVIDIA's IndeX and OptiX**, 28 April, 2:00-3:00pm Atlantic [DETAILS & REGISTER](#)

**WestGrid: Exploration of Tools and Approaches for Humanists**, 12 May, 2:00-3:00pm Atlantic [DETAILS & REGISTER](#)

**WestGrid: Using Singularity Containers in VMs and HPC**, 26 May, 2:00-3:00pm Atlantic [DETAILS & REGISTER](#)

**Additional:**

Training from our partner SciNet can be viewed [here](#):



## New ACENET Support Forums!

## HSS Tools of the Trade

Join Lydia Vermeyden, our Research  
Consultant in Humanities, Arts & Social

Sciences, and a guest speaker for a lunchtime series on the **last Friday of each month**. The series focuses on discussions, demonstrations and applications of digital research tools in humanities, arts and the social sciences. Upcoming sessions are *Making Song Collections Accessible* (Heather Sparling) on 26 March and *Cloud and ArcGIS* (Josh Macfadyen) on 28 May. Open to anyone interested in digital research tools for the humanities, arts and social sciences. To receive notices and information about the series and sessions, sign up [here](#)



## PEI Red Dirt Digital Tools Forum

Starting **March 12th**, our research consultant on the Island, Mat Larade, will host a virtual monthly lunchtime gathering for anyone interested in digital tools and related topics. This is an informal and participant driven forum to ask questions, discuss challenges and learn about new tools. Meet others doing numerical modelling, parallel computing, machine learning, or mining large datasets, creating web platforms and portals, or the myriad of other digital tool applications! Hear from local researchers about how they're using these tools. Open to faculty, research staff, students and industry. To receive information and notices for these sessions, sign up [here](#)



## UNB Data Challenge

The Data Challenge will bring together three competitive events, the Open Data Visualization (5th annual), Data Analytics (new), and Data Sprint (new) on March 11-12, 2021 virtually on Microsoft Teams. Take up the challenge and demonstrate the power of data, with the flexibility to take part remotely. Participants and teams will have the chance to showcase their ability to tell a story driven by data in three unique competitive formats. Teams can take part in all three competitive events. It is an ideal setting for citizens to get engaged, to meet leaders in academia, government, and private organizations, and to explore the world of data science. For more information or to sign up, click [here](#)

