



# ACENET

*accelerate discovery*

## Upcoming Training

Our winter training kicks off next week. New sessions are being added regularly, so be sure to check out the full listing on our [website](#). All ACENET sessions are online.

### **Basics of Computers**

***13 January, 12:00-14:00hrs Atlantic***

Most of us have experience using a computer, whether for school, work, or entertainment, but how many of us have actually had an expert teach us how to use it? This talk won't teach you how to troubleshoot everything, but will give you insight to how media, programs and data are encoded and used by computers, so you can make more sense of why computers behave the ways they do, and solve some of

your problems with greater efficiency and less frustration. We will provide an approachable overview of how a computer works, by both looking at their history and breaking one down to explain individual components, before highlighting some of the trade-offs to consider when buying a computer. We will provide practical, simple, and actionable advice on digital security and show you a few "pro tips" on how to make the most of your workstation, phone, or whatever device you happen to use. Whether you have a lot or a little experience using your digital technology, if you want to learn how to use your devices more effectively, this workshop is for you! [DETAILS & REGISTER](#)

### **Introduction to Spreadsheets**

**14 January, 12:00-14:00hrs Atlantic**

This is a hands-on introductory workshop focused on fostering best practices for data organization in spreadsheets. Participants will learn how to organize their data to prioritize clarity, reproducibility, and interoperability, such that they can seamlessly load their data later into an analysis program. The spreadsheet programs covered will be Microsoft Excel and Google Sheets. The examples explored will be from the field of Social Sciences, but the principles are relevant for any discipline that collects data in spreadsheets. No previous experience with spreadsheets or programming is required. [DETAILS & REGISTER](#)

### **ACENET Basics: Introduction to High Performance Computing (HPC) with ACENET & Compute Canada**

**17 January, 12:00-13:30hrs Atlantic**

This is a beginner session. Researchers across many disciplines use HPC to tackle analyses that would be either inefficient or impossible on a desktop. This session offers: a basic description of the infrastructure and support accessible through Compute Canada and ACENET, with entry-level advice about how to begin; an overview of the software packages available through Compute Canada and ACENET for applications, data analysis, and software development, and how to request specific software relevant to your work; and insight into the potential of parallel computing to accelerate your analysis. [DETAILS & REGISTER](#)

### **ACENET Basics: Introduction to Linux**

**18 January, 12:00-13:30hrs Atlantic**

This workshop is designed for those with no prior experience in working with a terminal interface. To access and use the ACENET and Compute Canada HPC clusters from your desktop, you will use a text-based "command line" interface. You will use the command line to move data around and run calculations. In this session, learn how to get started with the command line and how to perform some basic tasks: create and navigate directories for your data; upload and download files; manage your storage; and run programs on the computing clusters. [DETAILS & REGISTER](#)

### **ACENET Basics: Introduction to Shell Scripting**

**19 January, 12:00-13:30hrs Atlantic**

This workshop is designed for both new and experienced users. You'll learn how to use the command line to carry out repetitive tasks, extract information from files quickly, combine commands in powerful ways, and capture a workflow so you can re-use it easily. Save time, reduce errors, and use Linux more effectively. Prerequisite: ACENET Basic Series Introduction to Linux, or previous experience with Linux. [DETAILS & REGISTER](#)

## **ACENET Basics: Job Scheduling with Slurm**

**20 January, 12:00-13:30hrs Atlantic**

This workshop is designed for either new HPC users, or for experienced users either transitioning to Slurm or seeking to improve efficiency with the scheduler. Compute Canada's national systems use a job scheduler called "Slurm". In this session you will learn how Slurm works and how it allocates jobs, helping you to: minimize wait time by framing reasonable requests; ask for only the resources you need, to improve efficiency; increase throughput; run more jobs simultaneously; and troubleshoot and address crashes. Prerequisites: Completion of Introduction to Linux and Introduction to Shell Scripting, or prior experience with both. [DETAILS & REGISTER](#)

## **Compute Canada Federation National Training: Machine Learning**

**25, 26 January, 13:00-17:00hrs Atlantic**

This 8-hour interactive online workshop over 2 days is an introduction to the world of Machine Learning (ML) and Predictive Analytics to answer the question "What will happen?". It discusses when and how to use the different predictive machine learning algorithms, and introduces a set of statistical evaluation methods to evaluate the performance of different algorithms. The workshop will be delivered in English. French-speaking instructors will be present to respond to questions in the online chat room. Materials will be available in both English and French. [DETAILS & REGISTER](#)

## **Computational Fluid Dynamics: Ansys-Fluent**

**26 January, 9:00-12:00hrs Atlantic**

With advancements in computers and new generations of CPUs and GPUs, Computational Fluid Dynamics (CFD) is becoming an indispensable tool in many fields. Researchers and industrial design engineers are using CFD to predict and understand complex fluid flow and heat transfer problems, and to verify and optimize designs. Among open-source and commercial CFD packages, Ansys Fluent is one of the most popular commercial tools. In this workshop, you will learn how to set up a small problem and solve it in Ansys Fluent on your personal computer. The instructor will then demonstrate how to design and solve a large problem using a supercomputing cluster.

[DETAILS & REGISTER](#)

## **Tools of the Trade: Exploring a Premodern City: Locative Smartphone Apps & Digital Pedagogies**

**28 January, 12:00-13:00hrs Atlantic**

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. Open to anyone. [DETAILS &](#)

[REGISTER](#)

## **Compute Canada Federation National Training: Parallel Programming in Julia**

**14, 16, 18 February, 13:30-16:30hrs Atlantic**

Julia is a high-level programming language well suited for scientific computing and data science. This 9-hour introductory online workshop over 3 days covers multi-threaded programming, multi-processing programming, distributed and shared arrays. [DETAILS & REGISTER](#)

## **C as a Second Language**

**17 February, 12:00-16:00hrs Atlantic**

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 want to write user-defined functions for engineering packages such as Fluent, then this workshop is for you. [DETAILS & REGISTER](#)

**National Humanities and Social Sciences (HSS) Training Series (10 sessions)**

**22-25 February, various times**

This is an introductory, digital research workshop series for humanities and social sciences (HSS) researchers, where we discuss advanced digital tools available through the Compute Canada Federation, as well as research data management (RDM) support and best practices. Several sessions are hands-on workshops, providing the opportunity for digital skills development for novice and intermediate learners. Attend as many or as few of the 10 sessions as you wish, which are in both English and French. [DETAILS & REGISTER](#)

**Semaine de formation de la fédération Calcul Canada pour les sciences humaines et sociales (10 séances)**

**le 22 au 25 février, horaire variable**

Cette formation en ligne est une introduction aux outils numériques pour la recherche en sciences humaines et sociales où nous présentons les ressources offertes par la fédération Calcul Canada ainsi que les principes et meilleures pratiques en gestion des données de recherche. Certaines séances sont des ateliers pratiques où vous aurez l’occasion de perfectionner vos compétences en informatique, que vous soyez novice ou de niveau intermédiaire. Vous pouvez vous inscrire à autant de séances que vous voulez, et les séances sont offertes en français et en anglais. [DÉTAILS ET S'INSCRIRE](#)

**From Our Partners**

More training sessions from our regional partners and the Alliance can be viewed at [Calcul Québec](#), [Compute Ontario](#), [WestGrid](#) and [Digital Research Alliance of Canada](#).

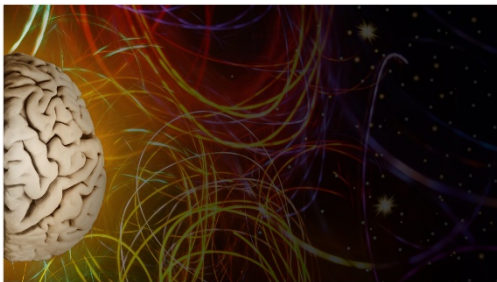


## HSS Tools of the Trade Forum

Join Lydia Vermeyden, our Research Consultant in Humanities, Arts & Social Sciences, and a guest speaker for a lunchtime series on the last Friday of the month. **Tools of the Trade** focuses on discussions, demonstrations and applications of digital research tools in humanities, arts and the

social sciences. It's open to anyone interested. For more information and to receive notices about the series and sessions, click [here](#).

The next Tools of the Trade session will be [Exploring a Premodern City: Locative Smartphone Apps & Digital Pedagogies](#) at noon on **January 28th**.



## ACENET Research Consultants Available

We'd like to take a moment to remind you that our staff remain available to help you when you have questions, need some guidance, or have a particularly difficult problem you're trying to solve.

Some of our staff are available to meet you on campus, but all are able to meet with you virtually. Just email your local representative to set up a time, or contact [support@acenet.ca](mailto:support@acenet.ca). You can find your local representative [here](#).



## International HPC Summer School 2022

Graduate students and postdoctoral scholars from institutions in Canada, Europe, Japan, and the United States are invited to apply to participate in the **12th International HPC Summer School, to be held June 19 to 24, 2022 in Athens, Greece**.

Hosted by the Partnership for Advanced Computing in Europe (PRACE), the summer school will familiarize the best students in computational sciences with major state-of-the-art aspects of high performance computing (HPC) and data analytics for a variety of scientific disciplines. This school will also help form professional networks, provide advanced mentoring, facilitate international exchange and further career options.

For more information, see <https://ss22.ihpcss.org>

**Applications are due 23:59 AOE on January 31, 2022.**

If you have any questions regarding your eligibility or how this program may benefit you or your research group, please do not hesitate to contact Ramses van Zon: [rzon@scinet.utoronto.ca](mailto:rzon@scinet.utoronto.ca)

The school is currently being organized as an in-person event (no remote participation) in order to create the best experience for all

attendees. Everyone from participants to staff on-site is expected to be fully vaccinated. Please refer to the <https://ss22.ihpcss.org/covid-19-rules-measures/> for further information.



## ACENET Partnering with ICTC

ACENET and the [Information and Communications Technology Council \(ICTC\)](#) are partnering to enhance the benefits of ICTC's post-secondary student wage subsidy program, [WIL Digital](#).

Under the program, ICTC will subsidize up to 75% of an eligible student's wages, capped at \$7500, for a four-month work term focused on a project requiring supercomputing. The student can also participate in ICTC's e-learning courses. Under ICTC's agreement with ACENET, the company can access ACENET's [Siku system](#), technical consulting and support, and ACENET scheduled training sessions. In addition, the student will receive weekly mentoring from one of our research consultants. ***This is a combined value of up to \$13,000!***

Applications must be from a registered business or not-for-profit organization. To learn more, check out our [information sheet](#), or email either [industry@ace-net.ca](mailto:industry@ace-net.ca) or [t.perron@ictc-ctic.ca](mailto:t.perron@ictc-ctic.ca).



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*regional partner*