Compute Ontario Summer School

What is Compute Ontario Summer School and How do I Attend?

Compute Ontario

Presented by:
Ann Allan
Training Coordinator

Brief Overview

- For more information about this year's offerings Attend:
  - Overview of Training Opportunities in the School and "Beyond"
  - Instructed by Ramses van Zon.

- June 2 – June 20
- Over 40 courses delivered by experts in the field
- Topics including Advanced Research Computing (ARC), High Performance Computing (HPC), Research Data Management (RDM), and Research Software (RS).
- Introductory, intermediate and advanced level courses, there is something for everyone.

Compute Ontario

How do I Enrol in Courses?

1. Sign-up or Sign-in

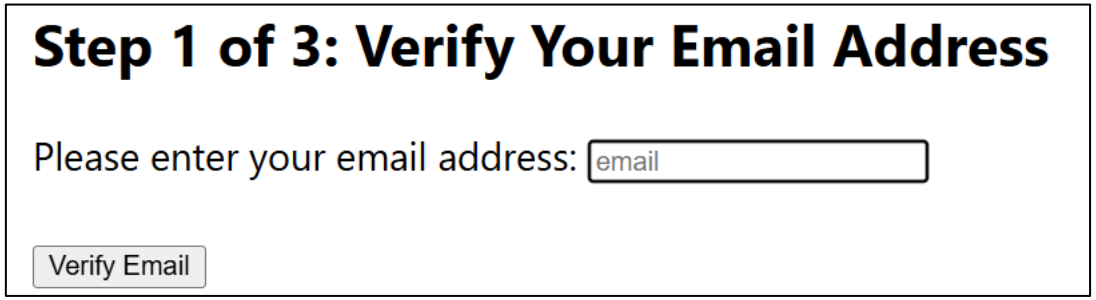
Create a Compute Ontario Training Account or Log-in

2. Enrol in Courses

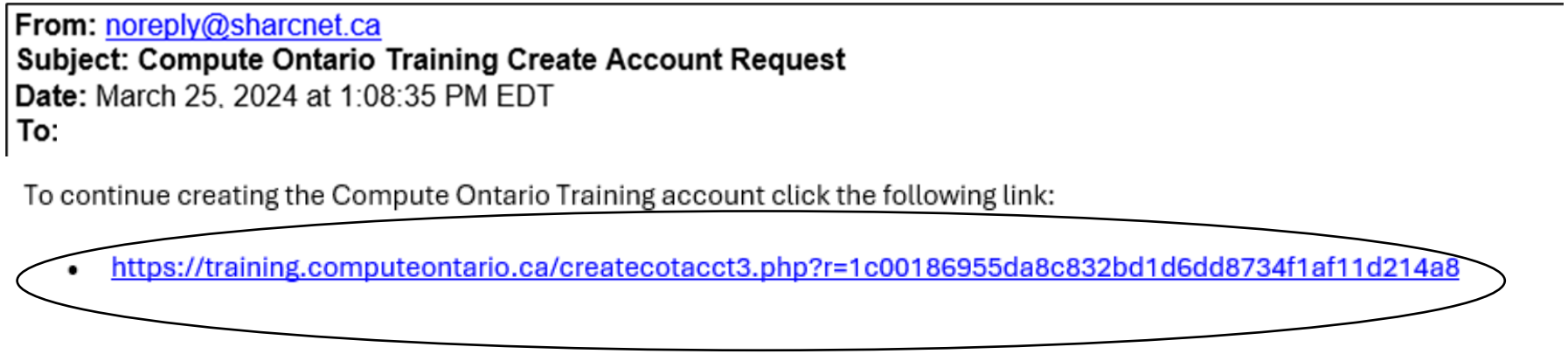
Select courses on the Summer School Landing page

Sign-up:Creating a Compute Ontario Training Account

1. Provide your email address



2. Open your email and select the first link: circled below



Sign-up: Creating a Compute Ontario Training Account

3. Provide your account information:

- Link in Email will lead to step 3

Step 3 of 3: Provide Account Information

Thank you for verifying your email. Please fill out the account information below:

First Name: First Name
Last/Family Name: Last/Family Name
Email:
Preferred Username: cot- (NOTE: This username is **not** guaranteed.)
Password: Password
Re-type Password: Re-type Password
Phone: Phone
Institution: Institution
Department: Department
City: City
Country: CA
Language: English

Create Account

Sign-In

Compute Ontario Training Login Page

Log in using your account credentials:

Username:

Username

(NOTE: You cannot use your email address to log in.)

Password:

Password

Log in

Forgot Username? :: Forgot Password?

Note:

You may have previously logged in with your CCDB account

If you would like to keep your account data when creating a Compute Ontario Training account, contact support@tech.alliancecan.ca with the subject "COSS 2025"

Don't forget to include 'cot-' when you enter your username

Enrol in Courses

1. Select Link to Course underneath the course title on the Landing Page

:: Mon., June 2 ::
09:00 to 10:25 EDT

Overview of Training Opportunities in the School and "Beyond"

:: Link to Course :: Expand description ::

Enrol in Courses

2. Select Enrol me

Overview of Training Opportunities in the School and "Beyond"

Enrolment options

Overview of Training Opportunities in the School and "Beyond"

Description: Are you not sure which workshops to sign up for in this Summer School? In this session, we will give an overview of the program of the Compute Ontario Summer School to help you decide. We'll also show you what other training opportunity in Advanced Research Computing and Research Data Management are available for you in Canada after the summer school.

Teacher: Ramses van Zon (SciNet, University of Toronto)

Level: Introductory

Format: Webinar

Certificate: Attendance

Prerequisites: None

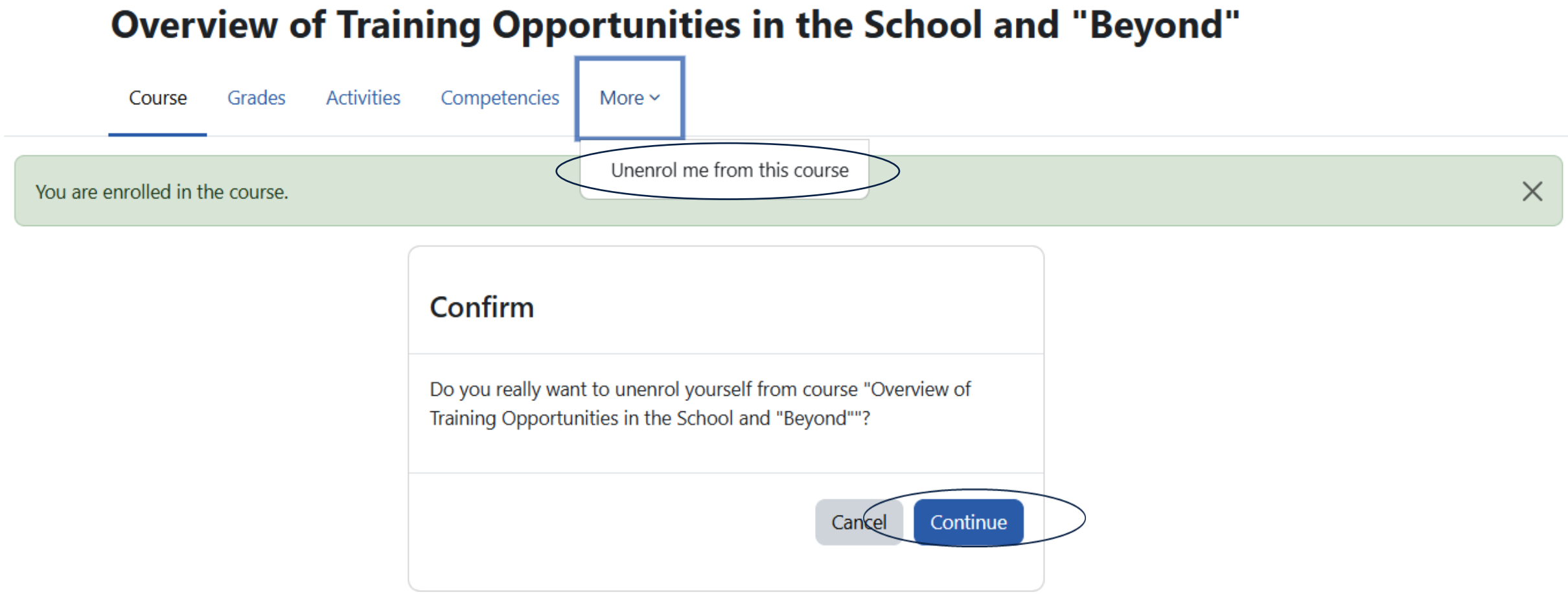
Self enrolment (Participant)

No enrolment key required.

Enrol me

Unenrol in Courses

Select Unenrol me from this course found in the More menu on each course page



Schedule Notes

- All Course times are listed in EDT
- Some courses overlap so look closely at dates and times
- Please unenrol from courses that you don't plan to attend so others can enrol (you can re-enrol later)

The link to the frequently asked questions (FAQ page) can be found on the landing page under registration

We also have a frequently asked questions (FAQ) page for this event.

Compute Ontario

Course Descriptions

- Abstract
- Teacher
- Level (Introductory, Intermediate, Advanced)
- Format (workshop, Lecture + hands-on, webinar, Lecture, Panel)
- Certificate (attendance or Completion)
- Pre-requisites (e.g. experience with a programming language)

Resources for practical activities:

- Laptop
- Magic Castle
- Course specific (check the course main page)

Important Links

Landing Page/Schedule/Enrolment

Create An Account

Log-in

Frequently asked questions (FAQ's)

Contacts

Compute Ontario Training Coordinator: Ann Allan

ann.allan@computeontario.ca

OR

support@tech.alliancecan.ca with the subject "COSS 2025"

Content Overview

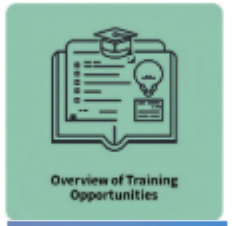
- Some courses overlap
- There are at least 2 courses running at all times

Unofficial Subject Streams

- High-Performance Computing (HPC) and Overview
- Research Data Management
- Artificial Intelligence and Machine Learning
- Bioinformatics
- Neuroanalytics
- Programming languages and Tools
- Parallel Programming
- Software Tools and Infrastructure
- Security

General High Performance Computing (HPC) and Overview

:: Mon., June 2 ::
09:00 to 10:25 EDT



Overview of Training Opportunities in the School and "Beyond"

:: Link to Course :: Expand description ::

:: Tue., June 3 ::
09:00 to 12:00 EDT

Introduction to Advanced Research Computing

:: Link to Course :: Expand description ::

:: Wed., June 4 ::
09:00 to 12:00 EDT
13:30 to 16:30 EDT

Scaling Up HPC Workflows

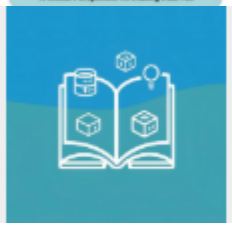
:: Link to Course :: Expand description ::

:: Thu., June 12 ::
09:00 to 10:25 EDT

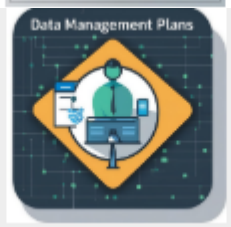
Practical Guide To The H100 and Taking Full Advantage of Compute Ontario's Newest GPUs

:: Link to Course :: Expand description ::

Research Data Management

:: Tue., June 10 :: 13:30 to 16:30 EDT		**Reproducible Research Practices and Tools** :: Link to Course :: Expand description ::
:: Wed., June 11 :: 09:00 to 10:25 EDT		**Research Data Management: A Global Perspective on Making Data FAIR** :: Link to Course :: Expand description ::
:: Wed., June 11 :: 10:35 to 12:00 EDT		**The Beginner's Guide to Data Curation** :: Link to Course :: Expand description ::
:: Wed., June 11 :: 13:30 to 14:55 EDT		**Introduction to Alliance RDM Services** :: Link to Course :: Expand description ::
:: Wed., June 11 :: 15:05 to 16:30 EDT		**Enhancing the FAIRness of Sensitive and Restricted Access Research Data: data deposit, de-identification, and re-use** :: Link to Course :: Expand description ::

Research Data Management

:: Thu., June 12 :: 10:35 to 12:00 EDT		**Implementing Institutional RDM Strategies** :: Link to Course :: Expand description ::
:: Thu., June 19 :: 09:00 to 10:25 EDT		**Depositing in Borealis, the Canadian Dataverse Repository** :: Link to Course :: Expand description ::
:: Thu., June 19 :: 10:35 to 12:00 EDT		**Using Data Collections in Odesi and Scholars GeoPortal in Your Research** :: Link to Course :: Expand description ::
:: Thu., June 19 :: 13:30 to 14:55 EDT		**Metadata in the DRI Ecosystem: A Pragmatic Introduction** :: Link to Course :: Expand description ::
:: Thu., June 19 :: 15:05 to 16:30 EDT		**Data Management Plans: Researcher and RDM Expert Panel** :: Link to Course :: Expand description ::

Artificial Intelligence And Machine Learning

:: Thu., June 5 :: 09:00 to 12:00 EDT 13:30 to 16:30 EDT		**Machine Learning** :: Link to Course :: Expand description ::
:: Fri., June 6 :: 13:30 to 16:30 EDT		**Data Preparation for Machine Learning** :: Link to Course :: Expand description ::
:: Mon., June 9 :: 09:00 to 12:00 EDT 13:30 to 16:30 EDT **:: Tue., June 10 ::** 09:00 to 12:00 EDT		**Introduction to Artificial Neural Networks** :: Link to Course :: Expand description ::
:: Thu., June 12 :: 13:30 to 16:30 EDT		**Text Mining** :: Link to Course :: Expand description ::
:: Fri., June 13 :: 09:00 to 12:00 EDT		**AI showcase** :: Link to Course :: Expand description ::

Bioinformatics

:: Tue., June 3 :: 09:00 to 12:00 EDT		**Data Visualization in Bioinformatics (R)** :: Link to Course :: Expand description ::
:: Wed., June 4 :: 09:00 to 12:00 EDT		**Bioinformatics: Analysis of RNA-sequencing Data** :: Link to Course :: Expand description ::
:: Wed., June 4 :: 13:30 to 16:30 EDT		**Bioinformatics for Pathway Enrichment Analysis** :: Link to Course :: Expand description ::
:: Fri., June 6 :: 09:00 to 12:00 EDT		**Bioinformatics: Long-read Sequencing Applications** :: Link to Course :: Expand description ::

Neuroanalytics

:: Mon., June 2 ::
09:00 to 12:00 EDT
13:30 to 16:30 EDT

Computational and Mathematical Analysis for a Simple Network Model of Associative Memory

This course is now full.

:: Link to Course :: Expand description ::

:: Tue., June 3 ::
13:30 to 16:30 EDT

Network Analysis of Neurophysiological Data

:: Link to Course :: Expand description ::

Programming Languages and Tools

:: Tue., June 3 :: 13:30 to 16:30 EDT	 **Introduction to R** :: Link to Course :: Expand description ::
:: Thu., June 5 :: 09:00 to 12:00 EDT 13:30 to 16:30 EDT	 **Introduction to C** :: Link to Course :: Expand description ::
:: Fri., June 6 :: 09:00 to 12:00 EDT 13:30 to 16:30 EDT	 **Fortran as a Second Language** :: Link to Course :: Expand description ::
:: Mon., June 9 :: 09:00 to 12:00 EDT 13:30 to 16:30 EDT	 **Introduction to Python** :: Link to Course :: Expand description ::
:: Fri., June 13 :: 13:30 to 16:30 EDT	 **Incorporating Other Languages into Python** :: Link to Course :: Expand description ::

Programming Languages and Tools

:: Tue., June 17 ::
09:00 to 12:00 EDT

Moving to Rust for Memory Safe Code

:: Link to Course :: Expand description ::

:: Tue., June 17 ::
09:00 to 12:00 EDT
13:30 to 16:30 EDT

:: Wed., June 18 ::
09:00 to 12:00 EDT
13:30 to 16:30 EDT

Introduction to Julia for Scientific and Parallel Computing

:: Link to Course :: Expand description ::

:: Thu., June 19 ::
09:00 to 12:00 EDT
13:30 to 16:30 EDT

:: Fri., June 20 ::
09:00 to 12:00 EDT
13:30 to 16:30 EDT

Modern C++ for Parallel Programming

:: Link to Course :: Expand description ::

Overlap
with Parallel
Programming

Parallel Programming

:: Fri., June 13 :: 09:00 to 12:00 EDT		**DASK** :: Link to Course :: Expand description ::
:: Fri., June 13 :: 13:30 to 16:30 EDT		**Data Parallelism and Model Parallelism for Scaling Training Across Multiple GPUs** :: Link to Course :: Expand description ::
:: Mon., June 16 :: 09:00 to 12:00 EDT 13:30 to 16:30 EDT		**Multicore Parallel Programming (OpenMP)** :: Link to Course :: Expand description ::

Overlap with AI

Parallel Programming

:: Tue., June 17 ::
09:00 to 12:00 EDT
13:30 to 16:30 EDT

:: Wed., June 18 ::
09:00 to 12:00 EDT
13:30 to 16:30 EDT

GPU Programming: CUDA

:: Link to Course :: Expand description ::

:: Thu., June 19 ::
09:00 to 12:00 EDT
13:30 to 16:30 EDT

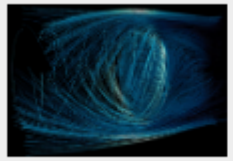
:: Wed., June 18 ::
09:00 to 12:00 EDT
13:30 to 16:30 EDT

Parallel Programming with MPI

:: Link to Course :: Expand description ::

:: Fri., June 20 ::
09:00 to 12:00 EDT
13:30 to 16:30 EDT

Software Tools and Infrastructure

:: Mon., June 2 :: 10:30 to 11:55 EDT	**Working with Jupyter on the Clusters** :: Link to Course :: Expand description ::
:: Mon., June 2 :: 13:30 to 16:30 EDT	**Introduction to Version Control Using Git** :: Link to Course :: Expand description ::
:: Tue., June 10 :: 09:00 to 12:00 EDT 13:30 to 16:30 EDT	**Introduction to Linux Shell** :: Link to Course :: Expand description ::
:: Wed., June 11 :: 09:00 to 12:00 EDT 13:30 to 16:30 EDT	 **Scientific Visualization** :: Link to Course :: Expand description ::
:: Thu., June 12 :: 09:00 to 12:00 EDT 13:30 to 16:30 EDT	**Using Containers: Apptainer** :: Link to Course :: Expand description ::

Security

:: Tue., June 17 ::
13:30 to 16:30 EDT

Data Security

:: Link to Course :: Expand description ::

Important Links

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