



Software Development for Earth and Environmental Scientists: Reproducible Research through Reusable, Reliable Code

University of Manchester, 18–22 March 2024

Fancy improving your research techniques within the Earth, atmospheric and oceanic sciences?

Wondering what best practices in coding would look like and how to get there?

Staff from the University of Manchester and Software Sustainability Institute will provide instruction in applying software development technics to scientific research, specifically these topics:

Virtual and integrated development environments for code development, testing and debugging

Verifying software correctness

Programming and software design paradigms for software architecture

Code review to improve software quality

Best practices in documenting, licensing, tracking issues, maintaining, releasing, and supporting software

The planned five-day, in-person workshop held at the University of Manchester will consist of instructor-led coding-along sessions and small-group exercises mimicking real-life collaborative software projects. The course will use NERC-relevant datasets and is based on The Carpentries pedagogical principles. Training and learning outcomes of the course will include students gaining intermediate-level general software engineering skills, making them highly employable both within academia and industry. Students will also have opportunities to apply these skills to their own work during the course, supported by the on-hand expert helpers.

On 12 March, we will run an optional online course “Introduction to Git and GitHub” for participants not comfortable using Git as their software repository solution.

On 14 March, we will run an optional online course “Introduction and Conversion to Python” ahead of the main workshop for participants coming from backgrounds in other programming languages (e.g., FORTRAN, R, C).

There are 30 fully funded (course, train fares, hotel, food) places available on the course. Although priority is given to NERC-funded PhD students, all postgraduate students and early career scientists are encouraged to apply.

Applications are due by the end of the day on 21 January 2024.

As part of the application, you will be asked to provide a short statement (500 words or less) about how this workshop will help you with your science.

To apply, visit:

<https://reproducibleresearch2024.eventbrite.co.uk>

or scan:



Questions about the course and application?

Contact Anja Le Blanc via e-mail at anja.leblanc@manchester.ac.uk.

