

Scientific Computing and Programming For Coastal Resource Management: Fundamental Concepts and Open Access Tools

Time: January 13-15, 8:00 a.m. – 4:00 p.m.

Sponsors: URI Coastal Institute and US EPA Atlantic Ecology Division

Instructors: Ivan Gonzalez and Patrick Fuller, Software Carpentry
<http://www.software-carpentry.org/>

Place: Hazard Conference Room, Coastal Institute, URI Bay Campus

Overview: From the early days of large mainframes run by punch cards to the modern web, computer science has profoundly impacted our society. This impact has not stopped at the academy's door and is felt across all scientific disciplines. Our ability to find and use large and diverse datasets is better than ever. Our ability to analyze data in new and interesting ways expands all the time and the tools to take advantage of these changes are freely available. All of this capability is driven by an increasingly open science that relies on the fundamentals of scientific computer programming. The University of Rhode Island Coastal Institute, with the US EPA's Atlantic Ecology Division, is hosting a 3-day workshop offered by Software Carpentry Bootcamp (Days 1 and 2 of the workshop) plus follow-on discussions (Day 3) with participants focused on ways to implement their newly acquired skills.

Workshop participants will learn:

- Using R for Scientific Computing
- Version Control with Git
- Basic Programming (variables, loops, conditionals, etc.)
- Program Testing & Debugging
- Documentation



How to Attend: Complete the application form at <http://tinyurl.com/ProgBootcamp>. Seating is limited to 35 participants. Anyone may apply but priority will be given to EPA staff, GSO and CELS graduate students, postdocs, and URI faculty/research staff (especially early-career scientists). Applications are due by 5pm, Dec 15, 2013. You must be able to attend the full 3-day session, partial attendance will not work.

If you are given approval to attend, please notify us immediately if an urgent matter prohibits your attendance so we can reach out to a wait list.

Cost: Registration is free. Sustenance will be provided and consist of coffee/bagels in the morning, a sandwich buffet at noon, and a java-based pick-me-up in the afternoon.

Need More? Students, you may take this workshop for 2 cr in the Spring 2014 semester as "NRS 592 – Special Projects: Scientific Computing in Coastal Resource Management." Students taking the class for credit and any others wishing more exposure to these topics can participate in a number of student-led instructional events in R and Python coding over the Spring 2014 semester.