DATA SCIENCE CORPS

DSC-WAV
WRANGLE·ANALYZE·VISUALIZE

The NSF-funded Data Science Corps: Wrangle, Analyze, Visualize Experiential Learning Program is pleased to invite you and/or your colleagues to participate in our week-long summer faculty development workshop:

"Teaching Introductory Data Science
in Massachusetts Community Colleges:
Best Practices and Fundamental Components of a First Course"
June 13 - 17, 2022

The National Academies 2018 consensus study, "Data Science for Undergraduates," recommended that: "to prepare their graduates for this new data-driven era, academic institutions should encourage the development of a basic understanding of data science in all undergraduates."

An introductory data science course is a necessary if not sufficient prerequisite to make this happen, and many community (two-year) colleges are developing such courses. There is a pressing need for opportunities for faculty members interested in teaching such a course to develop their skills and work with colleagues to design courses that can effectively engage their students.

Our hope is that this workshop can help make it easier for many institutions to successfully teach a modern, student-centered, introductory data science course. We encourage teams of between two to five participants from each institution to participate.

Goals

Our goals for the workshop are to:

1. advance faculty participants' skill in using R and Python to teach introductory data science;
2. help participants develop an introductory data science course at their institution;
3. introduce design principles that focus a student-centered approach to a first course in data science;
4. provide instruction on best practices and flexible technologies to support introductory data science education;
5. share curricular resources and instructional modules to assist teams of instructors to plan courses at your institution;
6. explore ways to create new data science pathways and course mappings/articulation in support of students transferring from community colleges to public four-year institutions;
7. help build a statewide-community for future collaborations.

Instructors

The workshop will be led by:

● Benjamin Baumer, Smith College: PI on the DSC-WAV project, Ben has contributed to multiple curricular development efforts at the national level, including the *Curriculum Guidelines for Undergraduate Programs in Data Science* endorsed by the American Statistical Association. He is a co-author of *Modern Data Science with R*, a comprehensive open-access textbook on data science.

DSC-WAV Summer Workshop and Symposium (June, 2022)

- **Nicholas Horton**, Amherst College: co-PI on the DSC-WAV project, Nick is a national leader in the statistics and data science community who has worked to create curriculum guidelines for data science at four- and two-year colleges. He has won numerous teaching awards and is a co-author of *Modern Data Science with R*.

- **Ethan Meyers**, Hampshire College/Yale University: co-PI on the DSC-WAV project, Ethan has extensive experience in data science practice and education through his work at Hampshire College, Yale University, and through his research affiliation with the Center for Brains, Minds and Machines at MIT.

Location:

We will hold an in-person workshop & mini-conference at Smith College. Attendance every day is expected. Some travel support is available, see below.

Format and Schedule:

The workshop will run from 9 AM - 3 PM each day and will include opportunities for individual work and group instruction. The first day will be organized as a "Data Science Symposium" and include a broad overview of introductory data science education. In addition to workshop participants, senior leadership from community colleges (deans, department chairs, presidents) will be invited.

Later sessions will provide multiple opportunities to engage with various course structures and options towards the overarching goal of developing an introductory data science course to be implemented at your institution.

Preparation and Background:

Participants should have some background in R or Python. They will be asked to undertake some preliminary activities prior to the workshop to ensure that they can fully participate (these are intended to take no more than 3-4 hours to complete).

Travel support and stipends:

The workshop includes stipends to facilitate participation from faculty at Massachusetts public community colleges. In addition, additional travel support (mileage and hotels) to facilitate participation for those coming from a distance may be available. More information is available at the online application. A hotel block will be available for those coming from a distance (partial mileage and hotel funding is available based on a competitive application process).

APPLICATION

We hope that you and your colleagues will attend. Please register your interest in attending as soon as possible. Priority for funding will be given to applications received by April 15th.

More information about the DSC-WAV project can be found at https://dsc-wav.github.io/www

Please contact Andrea Dustin (adustin78@smith.edu) if you have any questions.