#### CARNEGIE MELLON UNIVERSITY LIBRARIES

# Data & Code Support Menu

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The Carnegie Mellon University Libraries support faculty, researchers, students and staff in their use of code, data and data-related tools. Below are the support services we offer to instructors and faculty looking to support student learning related to data.

Our Data & Code Support team, along with our Liaison Librarians and other specialists, maintain a wide variety of skills for working with data using open source coding languages and tools, such as coding in R and Python, collaboration with GitHub, and cleaning and structuring data for automated analysis. We prioritize supporting open source coding languages and tools because they foster community support and development, collaboration, and the reuse of data and code. These tools are freely available, allowing for unrestricted use, adaptation, and distribution. They are also widely used across various industries, making them valuable for students to learn as they prepare for careers in academia or the workforce.

The options below are designed to connect you with our knowledge, expertise, and library-licenced resources. We recognize that university instructors are often tasked with teaching many of these topics within their courses and we are open to supporting your course in a number of ways including direct guest instruction, designing collaborative pedagogical materials, creating videos, helping design assignments, or in other ways that may be useful.

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# Data & Code Support Canvas Module

The Libraries Data & Code Support Canvas module offers a set of resources to aid students in their data and code-related learning. The module includes an overview of the available resources and support services offered and about how students can schedule consultations with the Data & Code Support Team for one-on-one help, on topics like data management, data analysis, coding, and more. In addition, the module points students to our virtual and in-person workshops on various data science topics, enhancing their skills and knowledge. Self-paced learning resources are highlighted including online tutorial platforms and courses. This module can be easily integrated into Canvas courses making it easier for students to find and access additional support and resources.

**Want to add the Data & Code Support module to your Canvas course?** Add by visiting the resource link and logging in to import or download.

# Short and Extended Workshops

We offer <u>short workshops</u> of 1-2 hours designed to teach students, staff, or faculty (or a mixture of these) about a variety of data science skills, software, and topics. These are often taught by library employees, but occasionally feature guest instructors from the community or industry. We can also schedule program or department-specific sessions to better meet the needs of students and instructors.

**Examples of workshop topics include:** Introduction to Python for Data Science; Building your Programming Tool Box: Command Line, Git and GitHub; Introduction to R; Introduction to Machine Learning with Python; and Python for All: Democratizing Coding Mastery with Al Chatbot Support

**How do they work?** For the Workshop Series, workshops are offered throughout the week from Mondays to Friday during the semester. Anyone can sign up to attend.

Want to learn more or register for a workshop? Check out the calendar.

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### Data & Code Support Consultations

We offer support for open source coding languages and data science tools for anyone in the CMU community working on research, class projects, or simply learning a new skill.

**Examples of consultation topics include:** Writing code in and fixing errors in R or Python code, Cleaning and preparing data for analysis in Python and R, Getting started with GitHub, Version control and collaboration with Git and GitHub

**How does this work?** These consultations last anywhere from 30 minutes to 1 hour and multiple consultations can be scheduled for more in-depth help. Students can schedule a consultation with one of our <u>consultants</u> based on their expertise.

**Want to learn more?** Learn more about our consultation services and our consultants on the <u>Data & Code Support website</u>. Schedule a <u>consultation</u> directly with one of our team members.

## Asynchronous Learning Modules and Courses

The University Libraries provides access to self-guided resources, online tutorials, courses, learning modules and other learning platforms to build data science skills. These materials can be incorporated into coursework via Canvas or provided as links in course syllabi. We can work with university instructors to integrate and recommend these materials, or can create custom recorded content on request. For new video requests, please allow sufficient time for us to receive the request, plan the content, and produce the video (typically 2 weeks to 1 month, depending on length and depth of content). To request a video, get in touch with a departmental librarian instructor or a library instructor that specializes in data management, data visualization, or specialized types of research. Here are some key resources to know about:

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### **University Libraries Workshop Curricula**

We are increasingly adding full workshops content and curricula to our <u>open data science</u> <u>workshops page</u>. We encourage instructors and students to use this content for self-guided learning or to repurpose it for in-class sessions.

#### **University Libraries YouTube Playlists**

Some of the data science workshops we offer have been prepared as <u>short videos</u> that deliver our workshop content in easy-to-digest formats for asynchronous viewing and self-paced learning. For example, see the <u>Introduction to R</u> and <u>Data Visualization in R</u> playlists.

#### **Sage Campus**

<u>Sage Campus</u> provides access to a growing collection of online courses on introductory skills and research methods including critical thinking, data literacy, research design, R and Python, statistical methods and more. Sage Campus is also integrated with Canvas. You can assign Sage Campus modules to your students through your Canvas course via the External Tool dropdown when adding new content to your course. If you have questions about using Sage Campus, please contact one of our liaison librarians, <u>Sarah Young</u>, for more information.

### **LinkedIn Learning**

<u>LinkedIn Learning</u>, formerly Lynda.com, is provided by the University Content Management System Team. This platform has a wealth of video tutorials and full courses on many data science, software and coding language topics.

#### **Dataquest**

The University Libraries offer university-wide premium licenses for <u>Dataquest</u>, the scaffolded online learning platform with a full catalog of interactive courses, including skill paths such as data visualization, machine learning, and data scraping and career paths using Python, R, Power BI, and Tableau.

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### Additional Resources

There are many other resources from CMU Libraries that support working with data or conducting research but are outside the scope of service of the Data & Code Support team. This includes support for research data management, data visualization, GIS tools, data sharing, collaboration and reproducibility tools, and text and data mining. The full suite of services in this area can be found on our <u>Data Services page</u>.

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