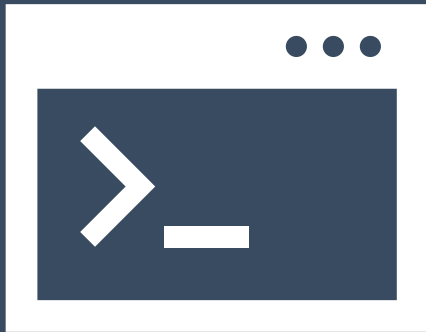


Introduction to R

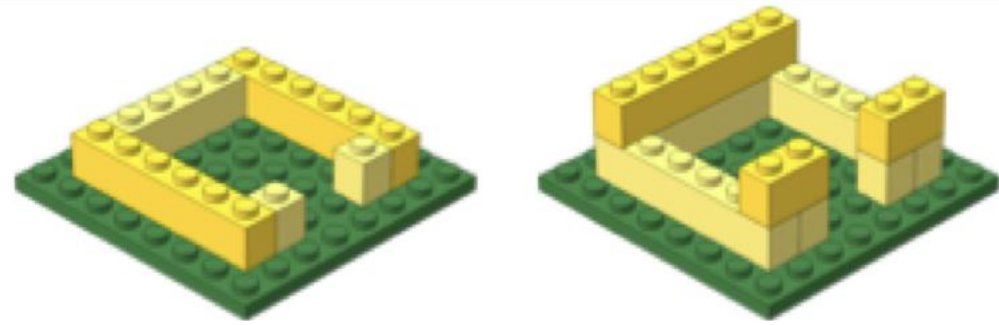
<https://tinyurl.com/hbc-r-flipped>



Harvard Chan Bioinformatics Core



Learning Objectives

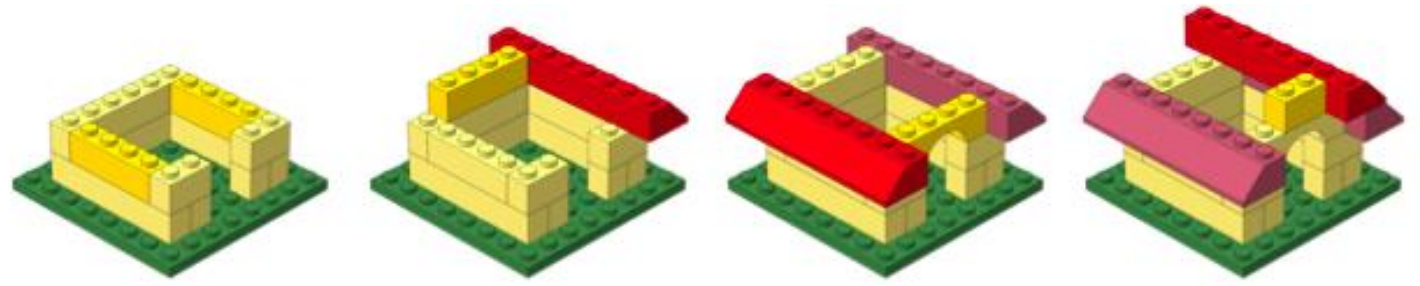


- ❖ Comfortably use RStudio (a graphical interface for R)
- ❖ Fluently interact with R using RStudio
- ❖ Become familiar with R syntax
- ❖ Understand data structures in R
- ❖ Inspect and manipulate data structures
- ❖ Install packages and use functions in R
- ❖ Visualize data using ggplot2
- ❖ Utilize pipes, tibbles and functions from the Tidyverse package suite

Exit survey

<https://tinyurl.com/r-workshop-hbc>


Keep building!



Module	Pre-requisite	Date	Time	Registration Page
Interact with your data using RShiny	Foundations in R	2/25/26	9:30am-12:30pm	Register here
Publication Perfect: Figure Formatting in R	Foundations in R	3/18/26	9:30am-12:30pm	Register here
"Track Changes" with your code: An Introduction to Git and GitHub	Foundations in R	4/15/26	9:30am-12:30pm	Register here
A Practical Introduction to Nextflow and nf-core	None	5/20/26	9:30am-12:30pm	Register here
Getting Started with Nextflow Workflow Development	Basic experience with command line and scripting concepts (e.g. bash, python, R or equivalent)	6/10/26	9:30am-12:30pm	Register here


<https://hsph.harvard.edu/research/bioinformatics/training/training-schedule/>

Harvard Catalyst Online Resource

 HARVARD UNIVERSITY

HARVARD.EDU

Harvard Catalyst Introduction to R:
An online, hands-on training resource for learning the basics of R
[Contact](#)

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Harvard Clinical & Translational Science Center

HOME Lessons Faculty Supplemental Resources


Welcome to Introduction to R

This **online, hands-on learning resource** will introduce you to using R and RStudio. R is a simple programming environment that enables the effective handling of data, while providing excellent graphical support. RStudio is a tool that provides a user-friendly environment for working with R. This resource is intended to provide both basic R programming knowledge and information on utilizing R to increase efficiency in data analysis.

This comprehensive online learning resource was created in collaboration between [Harvard Catalyst](#) and the [Harvard Chan Bioinformatics Core](#). It includes a series of videos explaining fundamental concepts in R and demonstrates the application through live coding. It is geared toward those interested in learning the basics of R for reproducible data wrangling and visualizations (ggplot2), and/or performing data analyses that require a basic knowledge of R.

Resource lessons address the following:

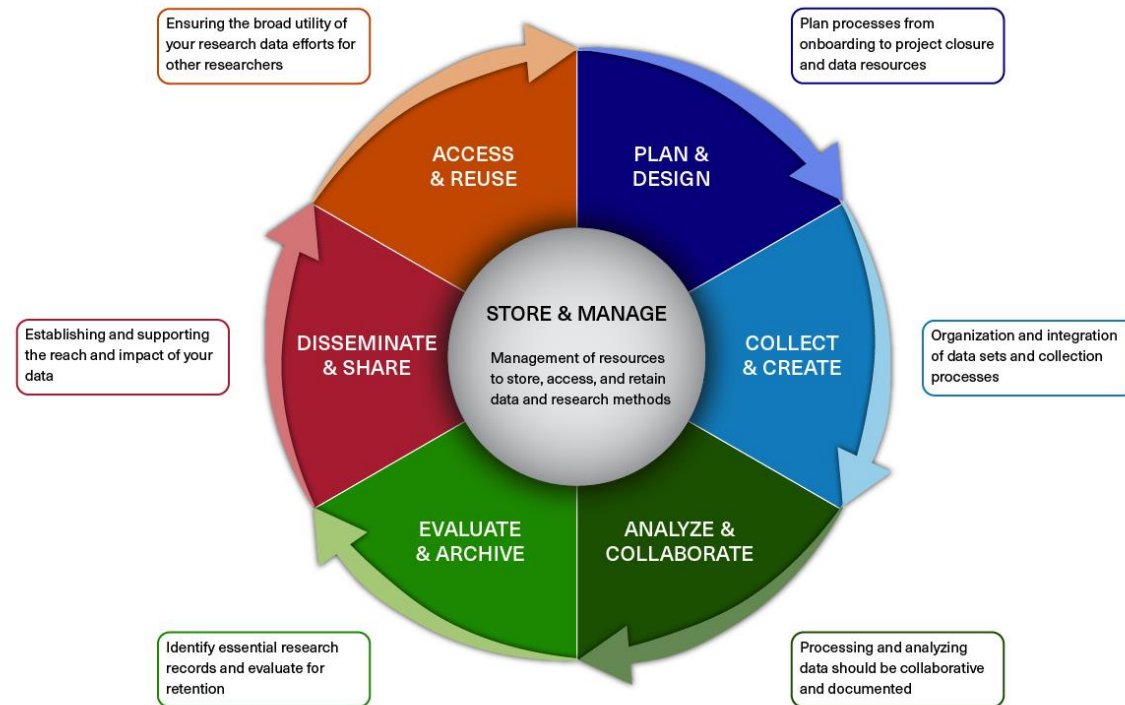
- **R syntax:** Understanding the different 'parts of speech' in R, and introducing variables and functions, demonstrating how functions work, and modifying arguments for specific use cases.
- **Data structures in R:** Explaining the classes of data structures and the types of data used by R.
- **Data inspection and wrangling:** Reading in data from files, and using indices and various functions to subset and create datasets (including the tidyverse suite of packages).
- **Visualizing data:** Visualizing data using plotting functions from the external package ggplot2.
- **Exporting data and graphics:** Generating new data tables and plots for use outside of the R



<https://ondemand.catalyst.harvard.edu/products/Introduction-to-R>

Research Data Management (RDM)

BIOMEDICAL RESEARCH DATA LIFECYCLE



Better RDM practice benefits you

❖ HMS Data Management LMA

❖ **Webpage:** <https://datamanagement.hms.harvard.edu>


❖ **Sign up** for quarterly email updates


❖ Harvard-wide Research data Management


❖ <https://researchdatamanagement.harvard.edu/>

Spring 2026 Data Lifecycle Training


Plan & Design


March 11 
The Lifecycle of
Scholarly 3D Data


April 8 
Data Management
with DMP Tool

May 6 
Offboarding for
Research Projects


Collect & Analyze


February 25 
Interact with RShiny


March 12 
Intro to MATLAB

March 26 
Public Health GIS


April 15 
Intro to Git & GitHub


April 29 
Prepare and Share Your
Software


April 30 
Tidy Up Your Data!


May 14 
Intro to Python

Store & Evaluate


February 26 
Finalize, Submit, and
Transfer Your Data


March 10 
Introduction to the
General Records Schedule


March 24 
Managing Your Paper
Records: Off-Site Records
Storage


April 21 
Managing Your Electronic
Records: Shared Drives
and Email



Share & Publish

February 5 
Share and Publish
Data with OSF

March 10 
The Making of a Data
Availability Statement

March 18 
Publication Perfect

May 20 
Data Sharing with
Harvard Dataverse

 In-person
 Virtual

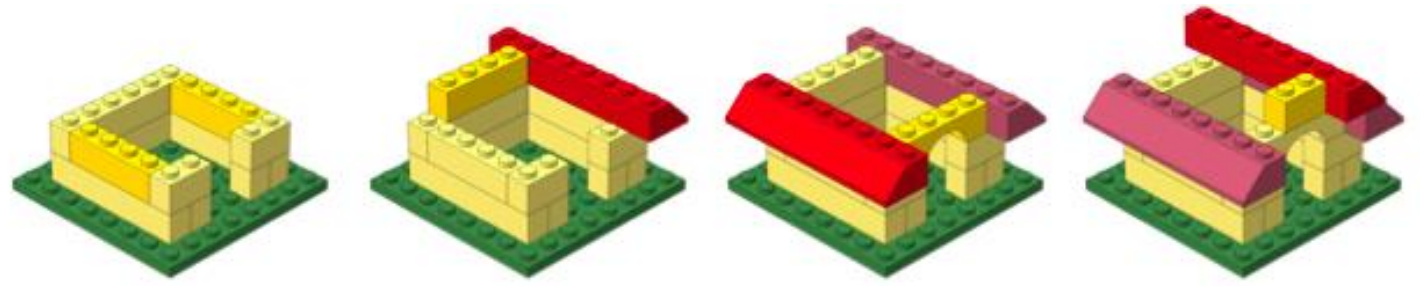


Learn More & Register
bit.ly/rdmwg-calendar



<https://datamanagement.hms.harvard.edu/training-events/rdmwg-calendar>

Keep building!



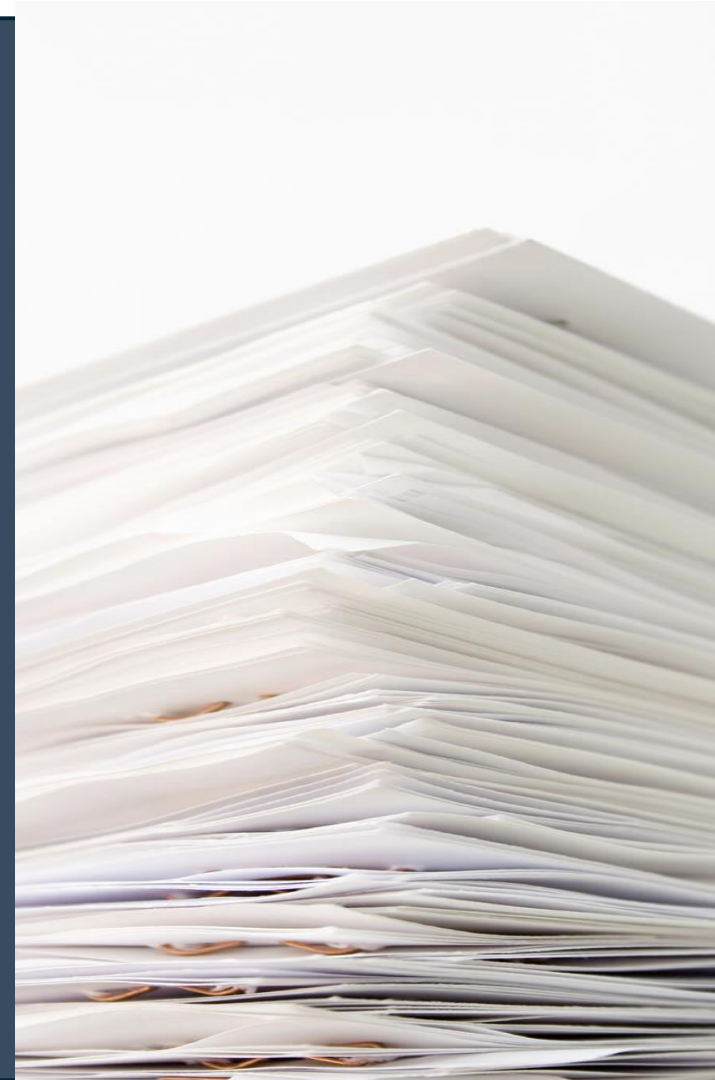
Workshop	Dates	Time	Location	Registration Page*
Introduction to Python	April 14, 17, 21 & 24, 2026	9:30am–12pm	Zoom	TBA
Introduction to Python	July 7, 10, 14 & 17 2026	9:30am–12pm	Zoom	TBA
Introduction to R	August 28, September 1, 4 & 8 2026	10am–12pm	Zoom	TBA
Introduction to Python	November 10, 13, 17 & 20 2026	9:30am–12pm	Zoom	TBA

Workshop	Pre-requisite*	Dates	Time	Location	Registration Page**
Introduction to scRNA-seq (R-based)	Introduction to R	March 6, 10, 13 & 17, 2026	9:30am–12pm	In-person	Register here
Introduction to Spatial Transcriptomics	Introduction to R	May 5, 8, 12 & 15, 2026	9:30am–12pm	Zoom	TBA
Introduction to scRNA-seq (Python-based)	Introduction to Python	August 11, 14, 18 & 21, 2026	9:30am–12pm	Zoom	TBA
Introduction to Spatial Transcriptomics	Introduction to R	October 6, 9, 13 & 16, 2026	9:30am–12pm	Zoom	TBA
Tools for Reproducible Research	Introduction to R	October 27, 30 & November 3, 2026	9:30am–12pm	Zoom	Register here

<https://hsph.harvard.edu/research/bioinformatics/training/training-schedule/>

Talk to us early!

Involvement in study design to optimize experiments



More Information

- ❖ *HBC training materials: <https://hbctraining.github.io/main>*
- ❖ *HBC website: <https://hsph.harvard.edu/research/bioinformatics/>*

Contact Us

Sign up for our mailing list:

<https://tinyurl.com/hbc-training-mailing-list>

- ❖ *HBC training team:* hbctraining@hsph.harvard.edu
- ❖ *HBC consulting:* bioinformatics@hsph.harvard.edu