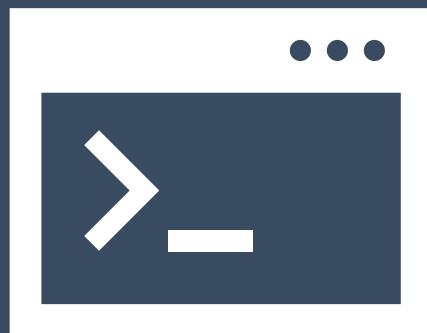


Introduction to R

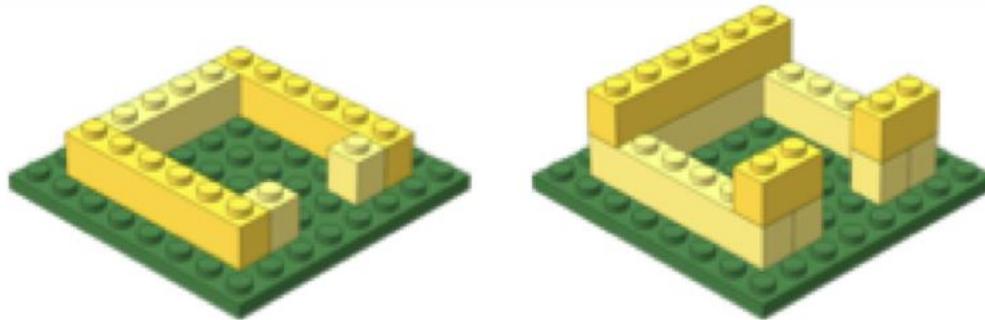
<https://tinyurl.com/hbc-r-flipped>



Harvard Chan Bioinformatics Core



Learning Objectives

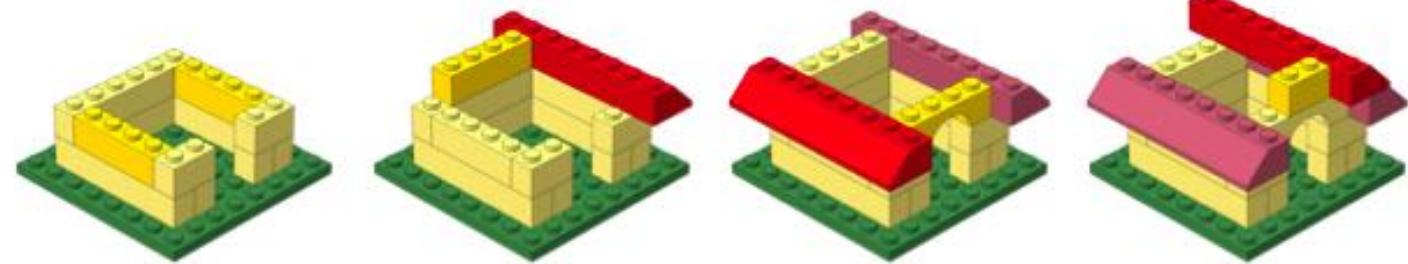


- ❖ Comfortably use RStudio (a graphical interface for R)
- ❖ Fluently interact with R using RStudio
- ❖ Become familiar with R syntax
- ❖ Understand data structures in R
- ❖ Inspect and manipulate data structures
- ❖ Install packages and use functions in R
- ❖ Visualize data using ggplot2
- ❖ Utilize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

Exit survey

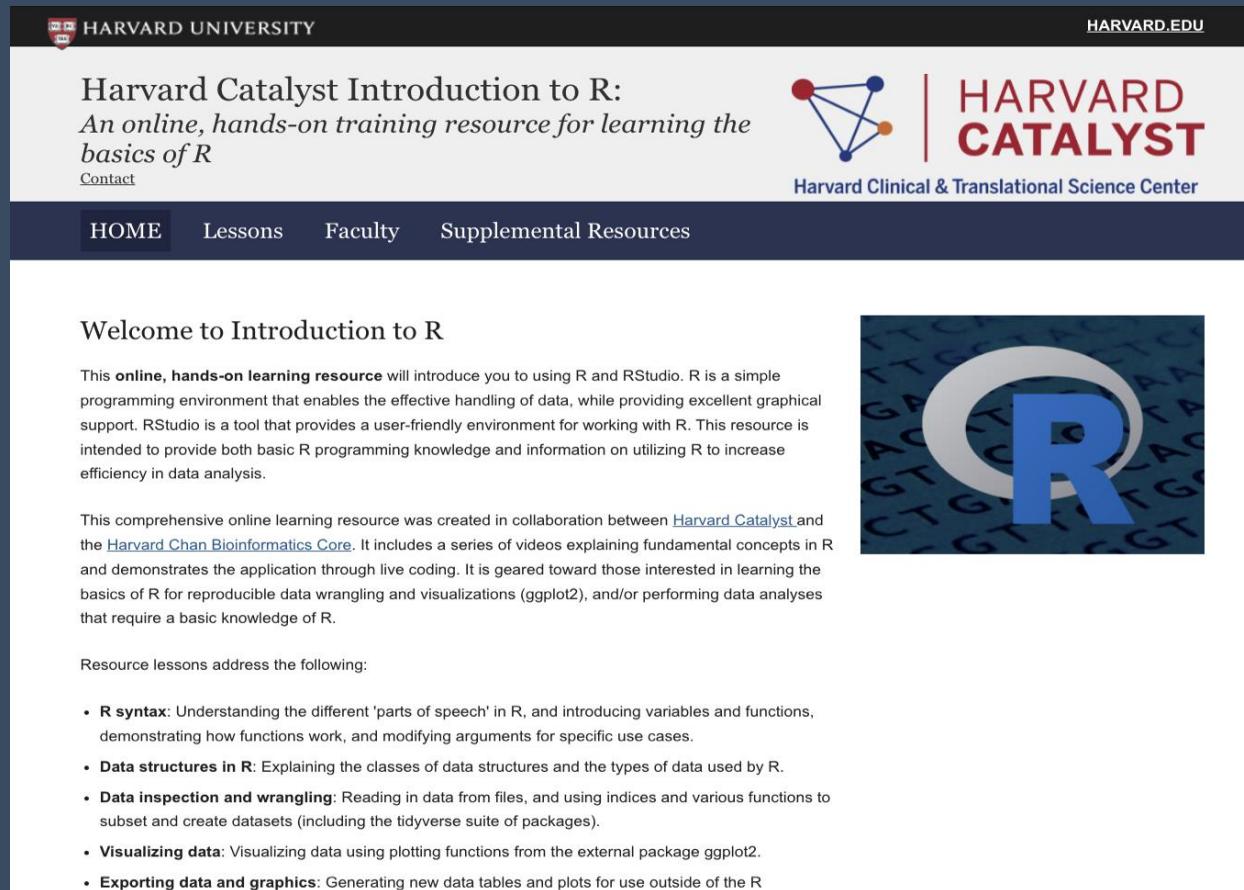
<https://tinyurl.com/r-workshop-hbc>

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

Harvard Catalyst Online Resource



The screenshot shows the homepage of the "Harvard Catalyst Introduction to R" website. At the top, there's a dark header bar with the Harvard University logo and "HARVARD.EDU". Below the header, the main title "Harvard Catalyst Introduction to R" is displayed, followed by a subtitle: "An online, hands-on training resource for learning the basics of R". A "Contact" link is also present. The navigation menu includes links for "HOME", "Lessons", "Faculty", and "Supplemental Resources". The main content area features a "Welcome to Introduction to R" section. It describes the resource as an online, hands-on learning resource for learning the basics of R. It mentions that the resource will introduce users to using R and RStudio, which is a simple programming environment for handling data. It also notes that RStudio is a user-friendly environment for working with R. The resource is intended to provide both basic R programming knowledge and information on utilizing R to increase efficiency in data analysis. Another paragraph explains that the 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. A sidebar lists the topics covered in the lessons, such as R syntax, data structures in R, data inspection and wrangling, visualizing data, and exporting data and graphics. To the right of the main content, there is a large blue "R" logo on a dark background, with the letters "R" in white.

Harvard Catalyst Introduction to R:
An online, hands-on training resource for learning the basics of R

[Contact](#)

[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.

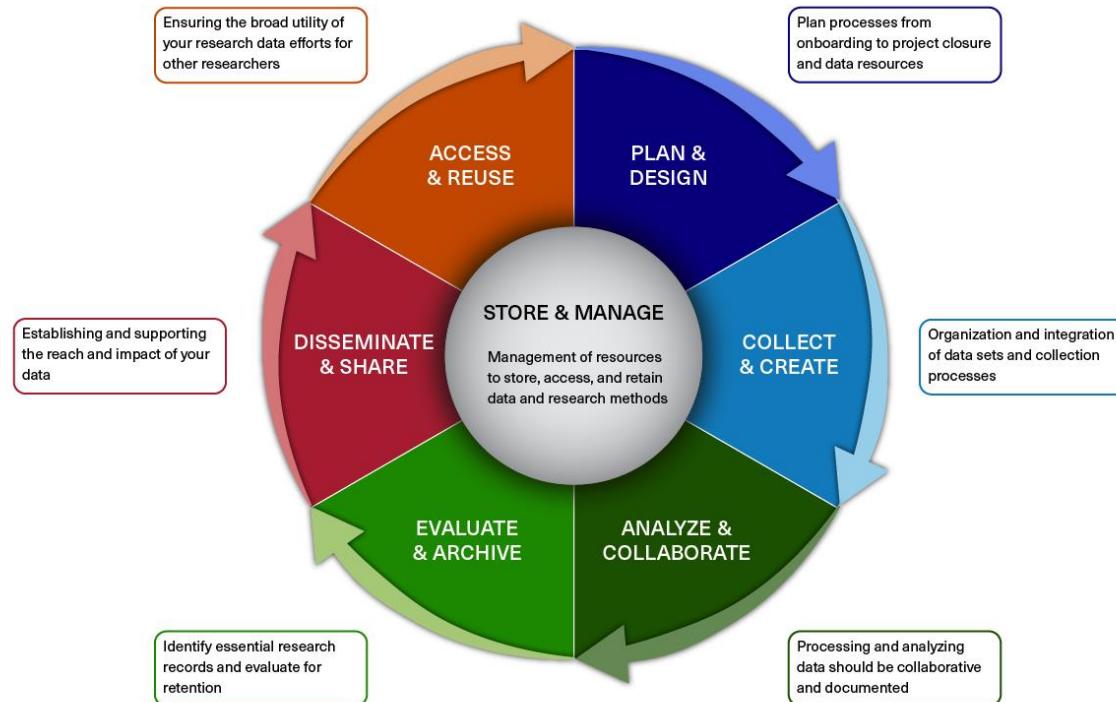
Resource lessons address the following:

- **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



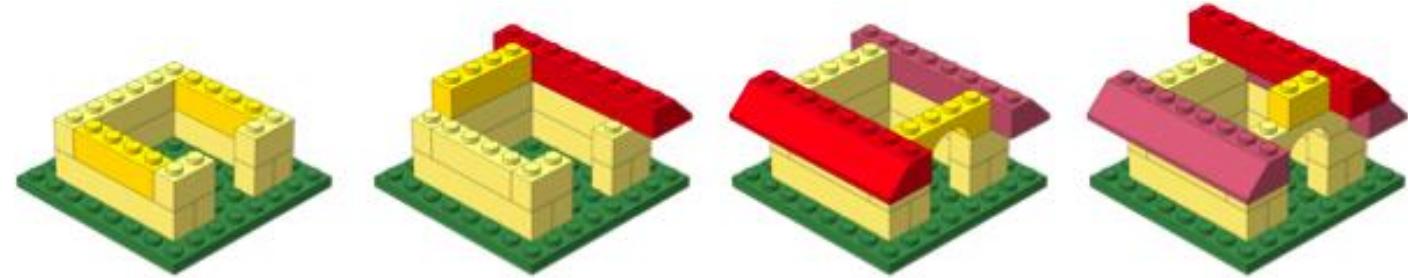
LONGWOOD
RESEARCH DATA MANAGEMENT

Learn More & Register

[bit.ly/rdmwg-calendar](https://datamanagement.hms.harvard.edu/training-events/rdmwg-calendar)



Keep building!

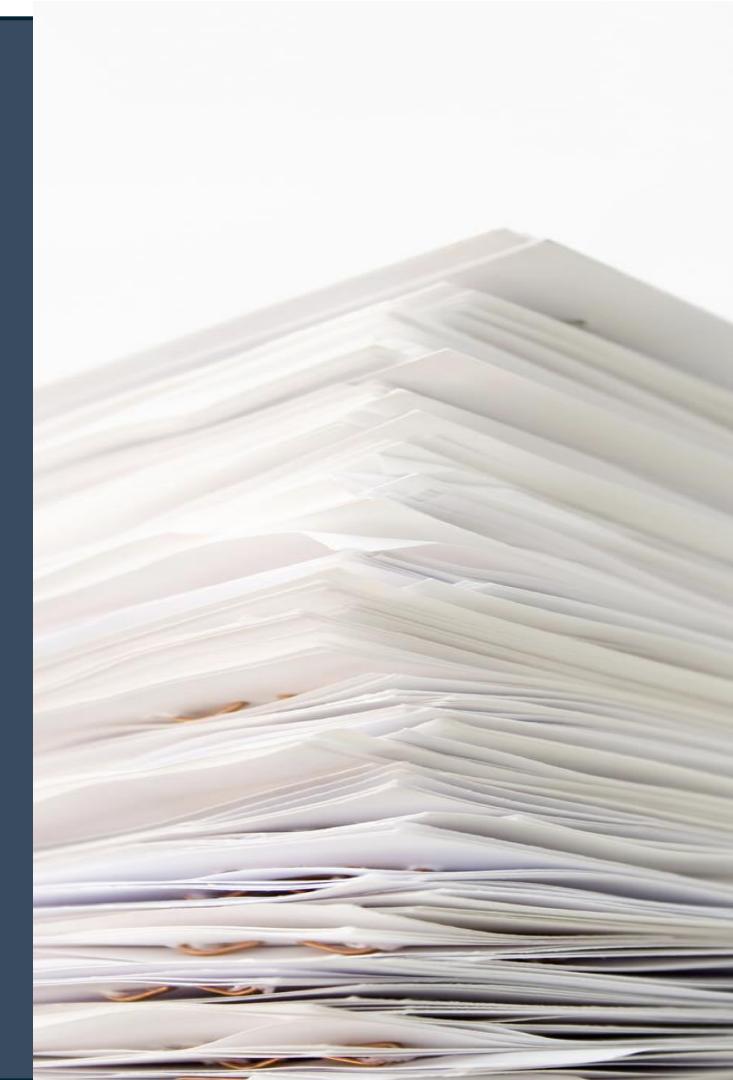


Workshop	Dates	Time	Location	Registration Page*
Introduction to Python	April 14, 17, 21 & 24, 2026	9:30am-12pm	Zoom	TBA
Introduction to Python	July 7, 10, 14 & 17 2026	9:30am-12pm	Zoom	TBA
Introduction to R	August 28, September 1, 4 & 8 2026	10am-12pm	Zoom	TBA
Introduction to Python	November 10, 13,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

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