Bioinformatic resources

In-person courses

Harvard Chan Bioinformatics Core - Bioinformatics for the Harvard Community (courses range from beginner to advanced); cost ~ $65 (04/2024)
https://bioinformatics.sph.harvard.edu/training/
Online tutorials facilitate learning at your own convenience:
https://github.com/hbctraining

Online courses

Harvard Edx - Data analysis for Life Science (Beginner)
Cost including certificate $876 (can be reimbursed through BWH benefits) (04/2024).
Lab members who have completed this course in the past: Frederike Kramer
https://www.edx.org/certificates/professional-certificate/harvardx-data-analysis-for-life-sciences

Harvard Edx - Data analysis for Genomics (Advanced)
Cost including certificate $657 (can be reimbursed through BWH benefits) (04/2024).
Lab members who have completed this course in the past: Merle Riedemann
https://www.edx.org/certificates/professional-certificate/harvardx-data-analysis-for-genomics

Free resources in-person

Broad CodeRATS
When? Mondays and Tuesday @ 11am-12pm
Where? 75 Ames, 4th Floor Connector Kitchen
"Come by if you need coding advice, or help debugging anything. Work or personal projects welcome. We have snacks :) "
(info last updated 04/2024)
https://sites.google.com/broadinstitute.org/coderats/home

Meetup Group Bioconductor for Genomics
https://www.meetup.com/Boston-R-Bioconductor-for-genomics/

Meetup Group Boston Women's Bioinformatics
https://www.meetup.com/boston-area-womens-bioinformatics/

Harvard Statistics Consulting Service
When? Mondays, Tuesdays & Fridays from 1pm to 3pm
Where? Science Center, room 400N
"Note that this service is for statistical issues (e.g., framing a scientific question as a statistical hypothesis, choosing an appropriate statistical method, or even choosing the fastest computational method for deploying that method) and we do not provide assistance on pure programming issues."
(last updated 04/2024)
https://statistics.fas.harvard.edu/harvard-statistics-consulting-service

Free resources online

R for absolute beginners

Swirl
https://swirlstats.com/students.html

Applied R for Biologists/MDs

YouTube videos explaining gene expression analysis
https://www.youtube.com/@Bioinformagician/featured

Introduction to Data Science by Rafael Irizarry
Rafalab, Dana-Farber Cancer Institute
Online Part 1 https://rafalab.dfci.harvard.edu/dsbook-part-1/
Online Part 2 https://rafalab.dfci.harvard.edu/dsbook-part-2/index.html
Pdf https://leanpub.com/datasciencebook

Data Analysis for the Life Sciences by Rafael Irizarry
Pdf https://leanpub.com/dataanalysisforthelifesciences
Github https://github.com/rafalab/rafalab.github.io/blob/master/pages/harvardx.md

Anything scRNAseq
Satija Lab, NYU
https://satijalab.org/seurat/

Bioinformatics Training at the Harvard Chan Bioinformatics Core
Lots of free courses on many bioinformatic topics
https://hbctraining.github.io/main/

Online books

Very helpful for creating plots in R
https://r-graphics.org/

Bible of R
https://r4ds.had.co.nz/

Advance bible of R
http://adv-r.had.co.nz/Introduction.html

A collection of pre-processing and visualization scripts for single-cell multi-omics data
https://bookdown.org/ytliu13207/SingleCellMultiOmicsDataAnalysis/

Starter codes for Linux
https://www.putorius.net/standard-wildcards-globbing-patterns-in.html