WORKSHOPS

Learn practical data analysis skills

The Carpentries

SPRING

2026

Workshop 1:

Data Wrangling and Processing for Genomics

BCB 5240-01 (CRN 43949)

February 24 , T/Th, 3:00 - 5:30 pm -March 12

This hands-on workshop will teach common tools for genomic sequence analysis, including read QC, read mapping, and SNP calling. We will utilize UNIX shell and R programming languages. No prior experience is required.

Day 1 - Introductions, overview of sequencing platforms and data formats

Day 2 - File manipulations in shell, cloud computing, software installation

Day 3 - Read mapping to reference genome, processing output

Day 4 - Read mapping to reference genome, processing output

Day 5 - Shell scripting and data wrangling in R

Day 6 - Plotting output data in R

Workshop 2:

Introduction to Machine Learning

BCB 5240-02 (CRN 43950)

April 8 - 24, T/Th, 3:00 - 5:30 pm

This hands-on workshop will cover introductory concepts of machine learning and introduce participants to the Scikit-Learn Python package. Some prior programming experience in suggested.

Day 1 - Introductions, overview of ML methods

Day 2 - Supervised methods - regression

Day 3 - Supervised methods - classification

Day 4 - Unsupervised methods - clustering

Day 5 - Unsupervised methods - dimensionality reduction

Day 6 - Neural Networks

IMCI

The Carpentries is an international community of learners and instructors dedicated to the importance of software and data in research. Learn more at www.carpentries.org