Working with data and displaying data interactively
A short course for the Department of Pharmacology and Experimental Neuroscience, UNMC , Omaha, NE

December 2025

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Lecture time: Tuesdays from 12 - 2 pm

Office Hours: After class or by appointment

Course web page: http://mamajumder.github.io/unmc

Text books: Notes and various resources will be provided during lectures.

Recommended books:

1. Modern Data Science with R by Baumer et. al.
2. Dynamic Documents with R and Knitr by Yihui Xie

Course outline (approximate): There will be six sessions in three days. Each session will be for an hour.

Day	Session	Chapter Description	Date
1	1	Supervised Learning from the Data	Dec 11, 2025
1	2	Unsupervised Learning from the Data	Dec 11, 2025
2	1	Introduction and Organization of Data	Jan 8, 2026
2	2	Effective Visualization of Data	Jan 8, 2026
3	1	Creating Reproducible Reports Using R	Feb 5, 2026
3	2	Demonstration of a Case Study with Experimental Neuroscience Data	Feb 5, 2026

Practical Assignments: There will be six practical assignments throughout the course.

Course outcomes: At the end of the course, participants will create a data analysis report.