STAT 4410/8416: Introduction to Data Science

MW 7:00 PM–8:15 PM *On-Campus*| TR 4:00 PM–5:15 PM *On-Campus*| Asynchronous *Online*

This course will focus on data technology, methods of gathering and cleaning structured or unstructured data, exploratory data analysis & dynamic and interactive data visualization, modeling data for prediction, forecasting or classification.

Topics that will be covered:

1. Introduction to data science
2. Data product and reproducible report
3. Data reshaping and manipulating
4. Dynamic and interactive data visualization
5. Text data and regular expression
6. Working with date and time data
7. Scripting language and scrapping data
8. Creating data products and working with SQL and Linux
9. Working with Hadoop, high performance computing
10. Basic statistical modeling, predictive models

Pre-requisites: MATH 4740/8746 or STAT 3800/8805, or permission of instructor.

Textbooks: *Modern Data Science with R*, by Baumer et al.

Software: Students will learn several popular software and programming languages in data science field.

Project: Students will work in groups on a real data project. A final presentation on the project will be required.

For More Information:

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