

DATA SCIENCES AND OPERATIONS

FALL 2022

DSO 545 – *Statistical Computing and Data Visualization*

Section(s) – 16278R

Professor

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Email

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When

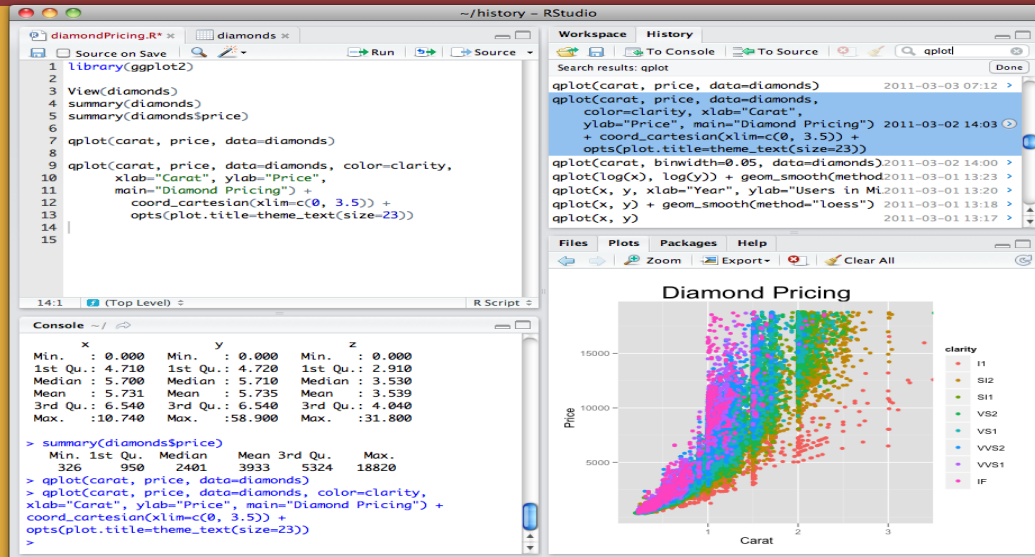
Tue/Thu, 2:00 PM – 3:20 PM

Office

BRI 400 C

Units

3.0



WHO SHOULD TAKE THIS COURSE?

Are you interested in cleaning, reshaping, and exploring data?

Are you interested in producing beautiful and informative graphics?

Are you interested in learning R?

Are you interested in statistical computing and modelling?

If your answer is YES to these questions, then it's YOU who should take this class!

COURSE OBJECTIVES

- Clean messy big data using R
- Distinguish between good and bad graphics
- Produce 1-D, 2-D, 3-D, hypervariate, time series, and spatial graphics
- Present data analysis and graphics using web dashboards

KEY CONCEPTS

- R statistical package
- Data cleaning
- Data reshaping
- Univariate data graphics
- Multivariate data graphics
- Time series data graphics
- Spatial data graphics
- Animated data graphics
- Web dashboards
- Reproducible data reports

COURSE DESCRIPTION

In this course, you will learn how to make sense of data, and not the specifics of modeling. The course starts with statistical computing, and you will gain experience with a programming language called R. You will learn the practice of data cleaning, reshaping of data, basic tabulations, and aggregations in order to be able to produce high quality visualizations. Then, the course proceeds with graphics that are critical elements of modern data analysis and presentation. And finally, the course concludes with creating web dashboards connected to R.