CDS 301 / CDS 501 Syllabus Scientific Information and Data Visualiza

Fall 2021

Course General Description

This course is an in-depth study of the methods and software used in Data Scier
complex information. Topics include data visualization, interactive visual analyti
with data and the effective communication of information. Elements of usabilit
experience, and the psychology of the user are developed. Exercises to help stu
their understanding of the role that visualization plays in computational science
Provides a foundation for data visualization applications in their careers. Studer
data-driven group project.

Data visualization is a subfield of data science that has the intrinsic purpose of c
the results of data analyses in a coherent, integrated way, through maps, charts
other visual elements. Particularly for the social and behavioral sciences, data v
useful in understanding large datasets, noisy datasets or emphasizing connectic
various elements or phenomena that are not immediately obvious to social scie

Course Description

This course addresses the following requirements for Social and Behavioral Scie

1. Explain how individuals, groups or institutions are influenced by context
2. Demonstrate awareness of changes in social and cultural constructs
3. Use appropriate methods and resources to apply social and behavioral s
   terminology, principles and theories in the analysis of significant human
   present.

These requirements are addressed by the course in the following ways:

1. Students will use R and learn how to create comprehensive visualization
   best visualization concepts and principles currently used in statistics, coi