

DATA 110 Topics

Topic	Suggested Number of Weeks
Intro to Data Visualization <ul style="list-style-type: none">• Components of effective data visualizations• Reputable data visualization sources• Introducing R and R Studio and Markdown	$\frac{1}{2}$
Handling Data <ul style="list-style-type: none">• Reading in Data• Data cleaning - Filter, Sort, Group, Summarize, and Work with Dates• Piping Operator• Join datasets	2
Introduction to Ggplot and Tidyverse <ul style="list-style-type: none">• Making static graphs with ggplot2• Tibble• Making Treemaps, Heatmaps. and Streamgraphs	2
Reproducibility and Transparency <ul style="list-style-type: none">• Github and Rpubs• Data Journalism• Data ethics and p-hacking	2
Collecting Data <ul style="list-style-type: none">• Data mining• Web scraping• Data from URLs	2
Data Relationships and Correlation <ul style="list-style-type: none">• General model fitting• Scatterplots and multi-variable scatterplots• Linear regression models• Multiple regression models	1

Interactive and Animated Plots <ul style="list-style-type: none"> • Packages such as Plotly and Highcharter • Tableau Public 	2
GIS – Geographic Information Systems <ul style="list-style-type: none"> • Accessing and using shapefiles from TIGER • Mapping in R using leaflet • Mapping in Tableau Public 	1 ½
Communication and Data Science Careers <ul style="list-style-type: none"> • Elevator pitch • Bias • Impression management strategies and situational communication preferences • Data for Good/Data for Social Justice • Career paths for a Data Scientist/Analyst 	1 ½
Other Software <ul style="list-style-type: none"> • Open Refine • Exploratory 	½
Total	15