Advanced Data Visualization – Tentative Schedule*

*Subject to change.

Mon Feb 1: Introduction to the Course, Icebreakers. Why Learn about Data Visualization?
Pre-class Reading: None

Wed Feb 3: Tools Intro: GIMP, R & RStudio, & ParaView
Pre-class reading: Complete Data Carpentry R tutorial Section "Before We Start"
(https://datacarpentry.org/R-ecology-lesson/00-before-we-start.html)

Mon Feb 8: Basics of Data Visualization
Pre-class Reading: Ware Ch. 1

Wed Feb 10: The Eye
Pre-class Reading: Ware Ch. 2

Mon Feb 15: Luminance, Brightness, & Contrast
Pre-class Reading: Ware Ch. 3

Wed Feb 17: Color
Pre-class Reading:

1. Ware Ch. 4 (pp. 95–117)

2. The Getty's Bauhaus Exhibit on Form and Color:
   https://www.getty.edu/research/exhibitions_events/exhibitions/bauhaus/new_artist/form_color/

Mon Feb 22: Uses of Color in Graphing & Plotting with ggplot2
Pre-class Reading:

1. Ware Ch. 4 (pp. 117–138)

2. Wickham 2010

Wed Feb 24: Student Group Presentations: 2D Graphs
Pre-class Reading: Wilke Assigned Chapter

Mon Mar 1: Building a Visual Narrative
Pre-class Reading: Ware Ch. 9

Wed Mar 3: The Good, The Bad, and The Ugly
Pre-class Reading: Wilke Ch. 1–5, 17–25

Mon Mar 8:   Visualization Challenge # 1
Pre-class Reading: None

Wed Mar 10:   Critique and Revisions of Challenge #1
Pre-class Reading: none

Mon Mar 15:   Finding Information
Pre-class Reading: Ware Ch. 5

Wed Mar 17:   Pattern Finding
Pre-class Reading: Ware Ch.6, have a 2-3 minute "elevator pitch" on your research or idea for final project. Does not need to be complete, we can also discuss and help brainstorm.

Mon Mar 22:   Spring Break (Mar. 22, no class)
Wed Mar 24:   Spring Break (no class)

Mon Mar 29:   Using Motion / Project discussion
Pre-class Reading: Ware Ch.6,

Wed Mar 31:   Space Perception
Pre-class Reading: Ware Ch. 7

Mon Apr 5:   Space Perception
Pre-class Reading: Ware Ch. 7

Wed Apr 7:   Multi-dimensional Plotting with ParaView & VisIT
Pre-class Reading: Paraview User Guide (https://www.paraview.org/paraview-guide/)

Mon Apr 12:   Visual and Data Objects
Pre-class Reading: Ware Ch. 8

Wed Apr 14:   3D Plotting in R
Pre-class Reading: None

Mon Apr 19:   Cognition in Visualization
Pre-class Reading: Ware Ch. 11

Wed Apr 21:   Visualization Challenge # 2
Pre-class Reading: None, Individual meetings regarding final project progress

Mon Apr 26:   Critique and Revisions of Challenge #2
Pre-class Reading: none

Wed Apr 28:   Build an Assessment Tool for Visualizations
Pre-class Reading: Ware Appendix C

Mon May 3:   In-class critiques
Pre-class Reading: None

Wed May 5:   In-class critiques
Pre-class Reading: None

Mon May 10:   In-class critiques
Pre-class Reading: None

Wed May 12:   In-class critiques
Pre-class Reading: Ware Appendix C

Final Exam: Slide-show Presentations (Friday May 21 8:00 – 10:30 am)