

## 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/](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:** Finding Information

Pre-class Reading: Ware Ch. 5

**Mon Mar 1:** Student Group Presentations: 2D Graphs

Pre-class Reading: Wilke Assigned Chapter

**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:** Pattern Finding

Pre-class Reading: Ware Ch.6

**Mon Mar 15:** Critique and Revisions of Challenge #1

Pre-class Reading: none

**Wed Mar 17:** Using Motion

Pre-class Reading: Ware Ch.6

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

**Wed Mar 24:** Spring Break (no class)

**Mon Mar 29:** Space Perception / Project discussion

Pre-class Reading: Ware Ch. 7, 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.

**Wed Mar 31:** Space Perception

Pre-class Reading: Ware Ch. 7

**Mon Apr 5:** Multi-dimensional Plotting with ParaView & VisIT

Pre-class Reading: Paraview User Guide (<https://www.paraview.org/paraview-guide/>)

**Wed Apr 7:** Visual and Data Objects

Pre-class Reading: Ware Ch. 8

**Mon Apr 12:** 3D Plotting in R

Pre-class Reading: None

**Wed Apr 14:** Cognition in Visualization

Pre-class Reading: Ware Ch. 11

**Mon Apr 19:** Building a Visual Narrative

Pre-class Reading: Ware Ch. 9

**Wed Apr 21:** Visualization Challenge # 2

Pre-class Reading: None, Individual meetings regarding final project progress

**Mon Apr 26:** Build an Assessment Tool for Visualizations

Pre-class Reading: Ware Appendix C

**Wed Apr 28:** Critique and Revisions of Challenge #2

Pre-class Reading: None

**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: None

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