

CPSC 292 Lecture and Assignment Schedule – Fall 2025

Last updated: 7/25/2025

Reading Guide and Notes

- **Date:** Lecture Topic | [Pre-class video or items](#) | [Post-class assignment or items](#) | Course Learning Objectives covered | **Other due dates**

Notes:

- Key for readings: Davies: *The Book of R* by Tilman Davies; Chang: *The R Graphics Cookbook* by Winston Chang
- Each Lecture Topic has a Yuja video lecture that should be viewed *before* class begins unless otherwise noted.
- Assignments are due **one week** after they are assigned unless noted on Canvas.

Unit 1: Beginnings

Week 1:

- **Mon Aug 25:** L1.1 Introduction to Course. Why Learn *R*?
[None](#) | [None](#) | CLO 1-3 discussed
- **Wed Aug 27:** L1.2 How Computers Work
[None](#) | [Assignments 1.1, 1.2, and 1.3](#) | 1.1.8, 1.2.1, 2.1.1-2.1.3
- **Fri Aug 29:** L1.3 Computer Games
[None](#) | [Assignment 1.4](#) | 1.2.1

Week 2:

- **Mon Sep 1:** Labor Day, no class
- **Wed Sep 3:** L1.4 Hands-on Introduction to R and RStudio
[Davies Ch. 1-2](#) | [Assignment 1.5](#) | 1.1.1-1.1.7, 2.2.1
- **Fri Sep 5:** L1.5 Types of Data
[Davies Ch. 4](#) | [Assignment 1.6](#) | 1.1.3, 1.1.5, 1.1.9

Week 3:

- **Mon Sep 8:** L1.6 Vectors
[Davies Ch. 2](#) | [Assignment 1.7](#) | 1.1.10-1.1.12
- **Wed Sep 10:** L1.7 Matrices and Arrays
[Davies Ch. 3](#) | [Assignments 1.8 and 1.9](#) | 1.1.10-1.1.12
- **Fri Sep 12:** L1.8 Lists and Data Frames
[Davies Ch. 5](#) | [Assignments 1.10 and 1.11](#) | 1.1.11-1.1.12

Week 4:

- **Mon Sep 15:** L1.9 Factors, Special Values, and Class Coercion
[None](#) | [Assignments 1.12 and 1.13](#) | 1.1.9, 1.1.13-1.1.15
- **Wed Sep 17:** L1.10 Troubleshooting Problems
[None](#) | [Assignment 1.14](#) | 3.5.1
- **Fri Sep 19: Skill Check 1 (SK1): Basics of R** (no video)
[Prepare for Skill Check](#) | [None](#) | 1.1, 1.2.1, 2.1.1-2.1.3, 3.5

Unit 2: Exploring Data

Week 5:

- **Mon Sep 22:** L2.1 Finding Meaning in Data, Discussing Projects
Read: Storytelling and Data Science and **Watch:** McCandless TED Talk | [Find a data set for project](#) | CLO 3 discussed
- **Wed Sep 24:** L2.2 Basic Plotting with R Markdown
Davies Ch. 7.1-7.3, Chang Ch. 1-2 | [Assignment 2.1](#) | 2.2.1, 2.2.2, 2.2.4, 3.2
- **Fri Sep 26:** L2.3 Reading and Writing Files, Data Cleaning
Davies Ch. 8, Chang Ch. 1-2 | [Assignment 2.2](#) | 3.1

Week 6:

- **Mon Sep 29:** L2.4 Scripting & Troubleshooting Compound Code, **SK1 attempt 2**
None | [Assignment 2.3](#) | 2.2.1, 2.2.2, 3.5.1, 3.5.2
- **Wed Oct 1:** L2.5 Basic Data Analysis
Davies Ch. 13 | [Assignment 2.4](#) | 3.4
- **Fri Oct 3:** L2.6 Grammar of Graphics Basics
Davies Ch. 7.4, Chang Appendix A | [Assignment 2.5](#) | 3.3 | **Project 1 data set due**

Week 7:

- **Mon Oct 6:** Student presentations on graph types (no video)
Assigned Chang Chapter | **None** | 3.3, 3.5
- **Wed Oct 8:** L2.7 How We See (no video)
Katsnelson 2021 | **None** | 3.6.1-3.6.4
- **Fri Oct 10:** L2.8 Basics of Data Visualization (no video)
Davies Ch 14 | [Assignment 2.6](#) | 3.6.5 | **Project 1 draft due**

Week 8:

- **Mon Oct 13:** L2.9 Critiquing Visualizations (no video), **SK1 final attempt**
None | [Prepare projects for critiques](#) | 3.1-3.6
- **Wed Oct 15:** Project 1 (P1): Draft Visualizations set 1; Assignment 2.7: Providing critiques (no video)
Set 1 prepares for critiques | **None** | 3.1-3.6
- **Fri Oct 17:** Project 1 (P1): Draft Visualizations set 2; Assignment 2.7: Providing critiques (no video)
Set 2 prepares for critiques | **None** | 3.1-3.6

Week 9:

- **Mon Oct 20: Skill Check 2 (SK2): Exploring Data** (no video)
Prepare for Skill Check | **None** | 2.2, 3.1-3.6

Unit 3: Skill Building

Week 9 (cont.):

- **Wed Oct 22:** L3.1 Best Practices Discussion (no video)
Assignment 3.1 | **None** | 2.1.1, 2.1.4, 2.2.1-2.2.3
- **Fri Oct 24:** L3.2 Writing Your Own Functions
Davies Ch. 9 | [Assignment 3.2](#) | 1.2.1-1.2.5, 3.5 | **Project 1 due**

Week 10:

- **Mon Oct 27:** L3.3 Flow Control – Conditionals
Davies Ch. 10.1 | [Assignment 3.3](#) | 1.2.1, 1.2.7
- **Wed Oct 29:** L3.4 Flow Control – Looping
Davies Ch. 10.2, Watch: Code Academy: Loops | [Assignment 3.4](#) | 1.2.1, 1.2.6, 1.2.8
- **Fri Oct 31:** L3.5 Flow Control – Practice Problems (no video), **SK2 attempt 2**
Davies Ch. 10.3 | [Assignment 3.5](#) | 1.2.1, 1.2.6-1.2.8 | **Project 2 decision due**

Week 11:

- **Mon Nov 3:** L3.6 Debugging
Davies Ch. 10.3, 12.1 | None | 1.2.1, 1.2.6-1.2.8
- **Wed Nov 5:** L3.7 When, Why, and How to Refactor Code
None | Assignment 3.6 | 1.2.9, 1.2.10, 1.3.3, 1.3.7
- **Fri Nov 7:** L3.8 Documenting Code
Read: Code Documentation: The Complete Beginner's Guide | None | 2.2.2, 2.2.4, 3.5

Week 12:

- **Mon Nov 10:** Refactoring Day! (no video), **SK2 final attempt**
None | Prepare 3-min presentation on improved project code | 1.3.7, 1.3.9, 1.3.10, 3.5 | **Project 2 Draft due**
- **Wed Nov 12:** Project 2 (P2): Assessing Project Improvement (no video)
None | Prepare for Skill Check | 1.3.9, 1.3.10, 2.2.1, 2.2.2, 2.2.4, 2.3.4, 3.5
- **Fri Nov 14: Skill Check 3 (SK3): Building Better Code** (no video)
None | None | 1.2, 1.3.3, 1.3.9, 3.5

Unit 4: Communicating Results

Week 13:

- **Mon Nov 17:** L4.1 Communicating Science Effectively (no video)
None | Assignment 4.1 | 3.6.5, 3.6.6, 3.7.1
- **Wed Nov 19:** L4.2 Creating and Managing Citations with RMarkdown
None | Assignment 4.2 | 2.2.1, 2.2.4, 3.7.2
- **Fri Nov 21:** L4.3 Poster Presentations
None | None | 3.7.3 | **Project 2 due**

Week 14:

- **Mon Nov 24:** Thanksgiving recess (no class)
- **Wed Nov 26:** Thanksgiving recess (no class)
- **Fri Nov 28:** Thanksgiving recess (no class)

Week 15:

- **Mon Dec 1:** L4.4 Scientific Papers and Grants, **SK3 attempt 2**
None | None | 3.7.2 | **Project 3 due (section 2)**
- **Wed Dec 3:** Work on Final Projects (no video)
None | None | all
- **Fri Dec 5:** Work on Final Projects (no video), **SK3 final attempt**
None | None | all | **Project 3 due (section 1)**

Project 4 due Wed December 10

Final Exam Periods

Attendance at Final Exam is required for *every student in class*. Project 3 posters will be presented and Assignment 4.3 (Peer reviews) will be completed during the exam period.

- Section 01: **Friday, December 12, 2025 1:30 – 4 pm**
- Section 02: **Monday, December 8, 2025 10:45 am – 1:15 pm**