

Week Number	Begin date	Module Heading	Topic	Textbook Chapters	HWK
1	January 8. 2018	Your R environment and building charts	Installing R, installing R Studio and installing ggplot2. Create some fundamental charts	Chapter 1, 2, 6, (R Environment) Chapter 3 (Building charts) Book: R for Data Science, Hadley Wickham	HWK 1 Charts Due 14 Jan
2	January 15. 2018	Data transformation in R	Get a first taste of data transformation methods in dplyr (you will use them a lot!).	Chapter 4, 5 R for Data Science Hadley Wickham	HWK 2 dplyr Due 21 Jan
3	January 22. 2018	Big data & data analysis workflow	Introduction to the concepts of Big data and the 6 V's, exploratory data analysis and workflow in data analysis	Chapter 6, 7, 8 R for Data Science, Hadley Wickham Chapter 1 Data Collection, Integration and Analysis. Yain, Schedlbauer, Durant	HWK 3 Big Data Due 28 Jan
4	January 29. 2018	Data wrangling: data import and strings	Introduction to data wrangling. Learn how to import data and process strings	Chapter 9, 10, 11, 14, 15 R for Data Science, Grolemund, Wickham Chapter 6 Data Collection, Integration and Analysis, Jain, Schedlbauer, Durant	HWK 4 Data Import Due 4 Feb
5	February 5. 2018	Data wrangling: dates and times	Learn how to handle factors and date time objects	Chapter 2, 3, 4 Data Collection, Integration and Analysis. Yain, Schedlbauer, Durant Chapter 16, "R for Data Science" Hadley Wickham	HWK 5 Dates and Times Due 11 Feb
6	February 12. 2018	Data wrangling: tidy and relational data	Introduction to tidy data and relational data.	Chapter 12, 13 R for Data Science, Hadley Wickham	HWK 6 TidyR Due 18 Feb
7	February 19. 2018	Data Collection through Web Scraping and APIs	Using rvest (as well as other tools) to scrape a web site.	Chapter 7, Data collection, integration and analysis, Jain, Schedlbauer and Durant	HWK 7A Web Scraping with a toolkit Due 22 Oct
8	February 26. 2018	R Programming practice	Introduction to functions and functional programming in R, more in-depth look at data analysis pipelines. Homework is a comprehensive practicum on web scraping and data retrieving.	Chapter 17, 18, 19, 21 R for Data Science, Hadley Wickham and Garrett Grolemund	HWK 7B Web APIs Due 4 Mar HWK 8 Web Scraping Practicum Due 11 Mar
9	March 5. 2018	Spring Break			
10	March 12. 2018	Data practicum and project proposal	Continue working on assignment from Week 8		Project proposal due this week Due 11 Mar
11	March 19. 2018	The Relational Model			HWK 10 SQLite Due 18 Mar Feedback on your fellow students' Project proposal
12	March 26. 2018	NoSQL Databases		Chapter 13, 14 Data collection, integration and analysis. Jain, Schedlbauer, Durant	
13	April 2. 2018	Document & Graph NoSQL Databases			HWK 12 MongoDB Due 1 Apr
14	April 9. 2018	Other programming concepts		Chapter 20 R for Data Science, Hadley Wickham	Term Project Due 22 Apr
15	April 16. 2018	Storage Design & Term Project			