		Readings	Homeworks always due Tuesday at 1pm Lecture	Quiz	Lab
Week 1					
T	25-Jan		Intro to the class, What is data, data structures		R and Rstudio refresher/ data structures
R	27-Jan	Broman and Woo (2017)	Collecting and recording data in a reproducible way, metadata		Making Data sheets for the field versus analysis
Week 2					
T	1-Feb	Lowndes et al. 2017 (Nature Eco Evo)	What is reproducible research and why is it important?		Tools for reproducible research (Github)
R	3-Feb	R4DS Ch4, Ch6	Reproducible scripts and workflow/importing data	1	Set up your file structure and make a script
Week 3					
T	8-Feb	Healy Ch 1, R4DS Ch 3	What makes a good visual?		Practice with ggplot
R	10-Feb	Wilke Ch 1-5	Visuals part 2		More ggplot
Week 4					
T	15-Feb	R4DS Ch 5, Ch 11	Data Wrangling part 1 (group_by, filter, select, summarise, mutate)		Practice with dplyr
R	17-Feb	R4DS Ch 12	Data Wrangling part 2 (tidyr - pivots, separate, unite)	2	Practice with tidyr
Week 5					
T	22-Feb	R4DS Ch 13	Relational data		Practice different types of joins
R	24-Feb	R4DS Ch 16	Dates and times (lubridate)		Practice with dates and times
Week 6					
T	1-Mar	R4DS 27,29	Intro to Rmarkdown		Practice with Rmarkdown
R	3-Mar		Rmarkdown part II	3	Practice with Rmarkdown
Week 7					
T	8-Mar	Wilke Ch 15, Healy Ch 7	Working with spatial data and making maps		Make a map/ final project proposal due
R	10-Mar		Working with spatial data and making maps part II		Good plot/Bad plot lab
Week 8					
T	15-Mar		Fun advanced plotting (gganimate, etc)		Goodplot/Badplot presentations
R	17-Mar	R4DS 18,19	Functional programing	4	Learn to write a function

T	22-Mar	No class - Spring Break			
R	24-Mar	No class - Spring Break			
Week 9					
T	29-Mar	**ON ZOOM**	Intro to group R package presentations		Work on group project (select and present a package)
R	31-Mar	Cesar Chavez Day No class			
Week 10					
T	5-Apr		How to ask for help (googling, stack overflow, and Reprex)		Make a reprex
R	7-Apr	Mastering Shiny Ch1	Intro Shiny apps	5	Shiny apps
Week 11					
T	12-Apr		Work on group project		Work on group project
R	14-Apr		Present group projects		Present group projects
Week 12					
T	19-Apr	R4DS Ch 14	Strings and regular expressions		Working with words
R	21-Apr	R4DS Ch 15	Working with factors	6	Practice with factors
Week 13					
T	26-Apr	R4DS Ch 21	Iterative data (for loops and map functions)		Practice loops, etc
R	28-Apr		Models Part 1 (stats, lmer)		simple lms and lmer
Week 14					
T	3-May		Models part 2 (many models with broom)		practice with lots of models
R	5-May		Work on Final project	7	Work on Final project
Week 15					
T	10-May		Final project presentations		Final project presentations
R	12-May		Final project presentations		Final project presentations