TIDYVERSE CHEAT SHEET

I want to …		Pkg	Example Code
Set working directory	- set working dir to script dir	rstudioapi	**setwd(dirname(rstudioapi::getActiveDocumentContext()$path))**
Read in data	- Read in a CSV, TSV, or other delimited	tidyverse	**read_csv**("filepath"), **read_tsv**("filepath")
		tidyverse	**read_delim**("filepath ", "delim")
		readxl	**read_excel**("filepath ")
Combine data	- Stack tibbles on top of each other	tidyverse	**bind_rows**(list or vector of what to bind)
	- Combine tibbles side by side	tidyverse	**bind_cols**(list of vector of what to bind)
	- Combine tibbles with a common column that uniquely identifies each row	tidyverse	**full_join(), left_join, etc**
View data	- View tibble structure and data types of columns	tidyverse	**str(**nameOfTibble**)**
	- View tibble in new tab, R Studio only	tidyverse	**view(**nameOfTibble**)**
Manipulate data (tibble) columns	- Standardize column names	janitor	**clean_names()**
	- Add column	tidyverse	**mutate()**
	- within mutate(), recode row values within a column	tidyverse	**case_when**(statement 1, statement 2, …)
	- within mutate(), change data type to factor		**as_factor()**
	- Merge multiple columns together by pasting strings together	tidyverse	**unite**(data, vector of column names, joining character, TRUE to remove used columns)
	- Separate single column into multiple columns	tidyverse	**separate**()
	- Rename a column	tidyverse	**rename**(data, new name = old name)
	- Remove or reorder columns	tidyverse	**select()**
	- Helper functions for specifying which tibble columns to modify	tidyverse	**starts_with**("pattern")
		tidyverse	**ends_with**("match")
		tidyverse	**contains**("match")
Manipulate data (tibble) rows	- Remove some of the rows using values from columns	tidyverse	**filter**(data, by)
	- Remove rows with all NA	tidyverse	**drop_na()**
	- Sort tibble rows by column values	tidyverse	**arrange**(data, column)
	- Group rows by column values	tidyverse	**group_by**(data, variables or computations to group by)
	- Remove groupings	tidyverse	**ungroup(**columns**)**
Manipulate data (tibble) rows and columns simultaneously	- Combine data rows within groups, creating a new tibble with columns determined by the groups and rows determined by the function applied to the groups. Depends on group_by()	tidyverse	**summarise**(data, function, grouping structure)
	- Stack columns with common data into a single column, and adding a column with categories that describe the original columns	tidyverse	**pivot_longer**(data, columns to pivot, names_to = "NAME", values_to = "VALUE")
	- Unstack columns according to another categorical column, one new column per category	tidyverse	**pivot_wider**(data, columns to pivot, names_to = "NAME", values_to = "VALUE")

I want to …		Pkg	Example Code
Manipulate text	- Join Multiple strings into a single string	tidyverse	**str_c**("string1", "string2", sep="")
	- Remove matched patterns in a string	tidyverse	**str_remove**(string, pattern)
	- Replace 1st matched pattern in a string	tidyverse	**str_replace**(string, pattern, replacement)
	- Replace all matched patterns in a string	tidyverse	**str_replace_all**(string, pattern, replace)
	- Replace missing values	tidyverse	**str_replace_na**(string, replacement)
	- Alter case of a string	tidyverse	**str_to_upper**(string)
		tidyverse	**str_to_lower**(string)
	- Get portions of strings matching a pattern	tidyverse	**str_subset**(string, pattern)
		tidyverse	**str_detect**(string, pattern)
		tidyverse	**str_which**(string, pattern)
Other Useful Functions	- Apply a function to each element of a list or vector	purrr	**map**(list or vector, function, additional arguments)
	- Decision logic	tidyverse	**if_else**(condition, if true, if false)
Make a pipeline	- pipe	tidyverse	**%>%**
	- start pipe	tidyverse	nameOfTibble **%>%** nextcommand()
		tidyverse	**read_excel() %>%** nextcommand()
	- save pipe output to variable	tidyverse	tibbleName **<- read_tsv() %>%** nextcommand()
Make figures	initiate figure	ggplot2	**ggplot()**
	map data to axes, colors, shapes, etc	ggplot2	**aes()**
	draw points	ggplot2	**geom_point()**
	draw line connecting data points	ggplot2	**geom_line()**
	draw fit line	ggplot2	**geom_smooth()**
	draw vertical line	ggplot2	**geom_vline()**
	draw horizontal line	ggplot2	**geom_hline()**
	draw histogram	ggplot2	**geom_histogram()**
	draw bar plot	ggplot2	**geom_bar()**
	draw column plot	ggplot2	**geom_col()**
	draw heatmap	ggplot2	**geom_tile()**
	panel figure based on data columns	ggplot2	**facet_grid()**
	panel different figures	gridExtra	**grid.arrange()**
	look nice	ggplot2	**theme_classic()**
	change titles, axis titles, etc	ggplot2	**labs()**