

PSYCH 10 Discussion Section · Fall 2026

Week 1 · Welcome, introductions, and the install clinic

Name	SUNet ID	Student ID number

Please hand this sheet (pages 1–2) in to your TA at the end of section. The second sheet (pages 3–4) is yours to keep, and a copy of both is on the Project page of the course website (psych10.github.io/project).

Welcome!

By the end of this course, you will have completed an original research project! You'll start from a claim you've seen in the news, find or collect real data that speak to it, explore the data to discover patterns, and fit statistical models that describe those patterns. You'll also present what you found to your classmates at the course-wide project showcase in December. It'll be a blast! So let's get started.

We'll say more about how the project works in lecture and in section next week. Today is the first small step: we get to know each other, and then we get R running on your laptop, with your TA right here in case anything goes sideways. This worksheet is your guide through section today, so keep it handy.

Plan for section today

- Introductions (10 min.) – full group, led by your TA
- Install R and RStudio (15 min.) – on your own, with help
- Install the course packages, and a quick tour while they install (12 min.)
- Check your setup: the two-minute check, your folder, your setup record (8 min.) – with a neighbor
- Wrap-up & questions (5 min.) – full group

1. Introductions (10 min.)

Your TA will go first. Then we'll go around the room. Please share your name, your year, what you're studying (or thinking about studying), and one thing you're hoping to get out of this course. Keep it under a minute! Afterwards, write down the first names of the one or two people sitting next to you. You'll be checking each other's setup today.

2. Install R and RStudio (15 min.)

In PSYCH 10 you'll use R for the final-project milestones and for the hands-on parts of Friday tutorials. Today, with your TA in the room, everyone gets it set up on their own laptop. Work through the steps in order and ask as soon as something doesn't match what's written here. In part 4 you'll fill in a short **setup record**; that's the part we read.

R and RStudio are two separate things. R is the language that does the analysis. RStudio is the application in which you write code, view plots, and organize files. Install R first and RStudio second. Both are free.

Before you begin. You need a Windows, macOS, or Linux laptop on which you are allowed to install software (on a managed computer, you may need an administrator) and an internet connection. If you use a Chromebook, a tablet, or a computer on which you cannot install software, please tell your TA today and borrow a laptop through Stanford's laptop-loan program: thehub.stanford.edu/find-software-and-computers/laptop-loans.

Install R. Go to the R Project download page, cran.r-project.org, and select your operating system.

Windows

1. Select *Download R for Windows*, then *base*.
2. Select *Download R-4.6.1 for Windows*. The installer filename should begin with **R-4.6.1**.
3. Open the downloaded **.exe** file and accept the default options.

macOS

1. Select *Download R for macOS*.

2. Download R version 4.6.1 (Happy Hop). Choose the `.pkg` installer that matches your Mac: `R-4.6.1-arm64.pkg` for Apple silicon (M1, M2, M3, M4, and so on; most Macs purchased since late 2020) or `R-4.6.1-x86_64.pkg` for an older Intel Mac. To check, open the Apple menu and select *About This Mac*, then look for *Chip* or *Processor*.
3. Open the downloaded `.pkg` file and follow the installer prompts.

Linux: select *Download R for Linux*, choose your distribution, and follow its instructions; ask your TA if you're unsure which.

Install RStudio Desktop. Go to the RStudio Desktop download page, posit.co/download/rstudio-desktop. Download the free RStudio Desktop installer recommended for your operating system. Do not choose RStudio Desktop Pro.

- **Windows:** open the `.exe` installer and accept the default options.
- **macOS:** open the `.dmg`, drag RStudio into Applications, then open RStudio from Applications.
- **Linux:** choose the installer for your distribution and follow the instructions on the download page.

Open RStudio. If the Console pane shows an R version and a `>` prompt, RStudio found R.

Confirm the R version. Everyone should use R 4.6.1. Do not download an R-devel, nightly, or patched build. After opening RStudio, type `R.version.string` in the Console and press Enter. The result should begin with `R version 4.6.1`. If it does not, ask your TA for help before installing packages.

3. Install the PSYCH 10 packages (12 min.)

1. Download `install-psych10-packages.R` from the Project page of the course website (psych10.github.io/project).
2. In RStudio, select *File > Open File...* and open the downloaded file.
3. Select *Source* at the top right of the script pane.
4. Installation may take several minutes. It is normal to see many messages in the Console and to see additional packages installed as dependencies.
5. If R asks whether to install packages that need compilation, choose the available binary version unless your TA tells you otherwise.

The script installs the CourseKata package, its supplementary datasets, and the other course packages. When it finishes, look for `PSYCH 10 SETUP SUCCEEDED`. If you instead see `PSYCH 10 SETUP NEEDS ATTENTION`, copy the entire Console output and show your TA.

While the packages install, turn to *A quick tour of RStudio* at the top of page 3.

4. Check your setup (8 min.)

The two-minute check. Create a new R script with *File > New File > R Script*, type this code, and run it from top to bottom:

```
library(coursekata)
favstats(~ Thumb, data = Fingers)

gf_point(Thumb ~ Height, data = Fingers,
          color = ~ Sex, alpha = 0.7) %>%
  gf_lm()
```

You should see a table in the Console and a scatterplot in the Plots pane. You don't need to save or submit this.

Your psych10 folder. Every activity this quarter goes in its own folder inside a `psych10` folder in your Documents folder (not in Downloads, which fills up and gets cleared). Make the `psych10` folder now.

Your setup record. Three quick things to write down; together they show the setup worked. Then swap laptops with the neighbor you named in part 1 and check each other's three lines.

1. Copy exactly what `R.version.string` printed: _____
2. From the two-minute check, the `favstats` table: `n = _____` `mean = _____` (one decimal is fine)
3. Where your `psych10` folder lives, for example `Documents/psych10`: _____

5. Wrap-up & questions (5 min.)

Your first tutorial is Friday, Sep 25: twenty minutes with your discussion leader in a group of three to five. No laptop; bring a pen and your phone, and one claim you've seen in the news that uses a number to say something about a group of people. Next week's section is on laptops, with the setup you just made, and starts the project. **Please hand this sheet to your TA before you leave.** The second sheet is yours to keep.

Keep for reference

A quick tour of RStudio. RStudio usually has four panes:

Pane	Typical location	What it is for
Source	Top left	Write and save scripts or lab documents.
Console	Bottom left	R executes code here and prints results and errors. The > symbol means R is ready.
Environment / History	Top right	See objects you have created and commands you have run.
Files / Plots / Packages / Help	Bottom right	Browse files, view plots, inspect installed packages, and read help pages.

The Source pane may not appear until you open or create a file.

Source versus Console. A file you open appears in the Source pane. To run one line of it, put your cursor on that line and press Ctrl + Enter (Windows/Linux) or Command + Enter (macOS). RStudio sends the line to the Console, where R evaluates it.

Packages: install once, load each session. An R package is an add-on containing functions, datasets, or other tools. Installation downloads a package to your computer. You usually install a package only once, but load it again each time you start a new R session. These two commands do different jobs:

```
# Download and install once (do not put this in every lab)
install.packages("coursekata")
```

```
# Load in each new R session or at the beginning of a lab
library(coursekata)
```

Package names are quoted in `install.packages()` but usually not in `library()`. If R says *there is no package called ...*, install that package. If R says it cannot find a function, check that you loaded the package that supplies it and that you spelled the function correctly.

Downloading each activity from the course website. The teaching team will post a new `.Rmd` file on the course website (psych10.github.io) for each in-class activity and final-project milestone. An `.Rmd` file is an R Markdown document: it combines instructions, your written answers, and executable R code in one file. Each time a new activity is posted:

1. Download the `.Rmd` file, and any accompanying data files, from the course website.
2. Create a folder for the activity inside your `psych10` folder. Give the activity folder a meaningful name, such as `tutorial-02` or `project-milestone-02`.
3. Move the `.Rmd` file and all accompanying files into that folder. If it comes as a `.zip` file, extract it first.
4. Open RStudio and select *File > Open File...*, then select the `.Rmd` file.
5. Immediately select *File > Save As...* and confirm that you are saving your working copy inside the activity folder.

Keep the `.Rmd` file and its data files together in the arrangement provided by the teaching team. Do not rename data files or move them after beginning the activity. Avoid `setwd()` and absolute paths such as `C:\Users\...` or `/Users/...`; those paths will not work on anyone else's computer.

Running code. Most PSYCH 10 work will be provided as an R Markdown (`.Rmd`) file. The document contains regular text and code chunks that begin with three backticks and `{r}`.

- To run the current line, use Ctrl/Command + Enter.
- To run one code chunk, select the green play button at the upper right of that chunk.
- To run the entire document and create the output file, select *Knit*.
- Save frequently with Ctrl + S (Windows/Linux) or Command + S (macOS).

Code runs in order. If a later line uses an object created earlier, the earlier line must run first. Before submitting, select *Session > Restart R*, then Knit the entire document from beginning to end. This catches work that succeeded only because an old object was still in your Environment.

Follow the submission instructions on Canvas for each activity. Some assignments may ask for the completed `.Rmd` file, the knitted HTML or PDF file, or both. Do not change the requested filenames unless the instructions tell you to.

Common problems.

RStudio opens, but reports that it cannot find R. R and RStudio are separate installations. Close RStudio, install R from the R Project, and reopen RStudio.

there is no package called 'coursekata'. Run this in the Console while connected to the internet, then try `library(coursekata)` again:

```
install.packages("coursekata")
```

object ... not found. This usually means that the code that creates the object has not run, the name is misspelled (R is case-sensitive), or the data did not load. Restart R and run the document from the beginning.

A plot or command seems stuck. Look in the Console. If it shows `+`, press Esc and check for an unmatched quote or parenthesis. If it shows a red stop-sign button, R is still working; wait, or select the stop button if necessary.

Installation fails on a managed computer. Save the full error message. Do not repeatedly reinstall R or delete folders. Contact the teaching team and include your operating system, R version (run `R.version.string`), and a screenshot or copy of the Console error.

Getting help. When asking for help, include:

1. What you were trying to do
2. The code you ran
3. The complete error message
4. Your operating system
5. The output of `sessionInfo()`

Text copied from the Console is usually more helpful than a cropped screenshot.

More help: the RStudio User Guide, docs.posit.co/ide/user, and the CourseKata R package, github.com/coursekata/coursekata-r.