

Pre-workshop Installation Instructions

Install/Update R & RStudio

Contents borrowed and modified from UVA's Data Science Essentials in R series

Before the first session

To participate in the R workshop, please bring a laptop with R and RStudio installed. We recommend that you have the latest version of R (3.6.1), the `tidyverse` package (1.2.1), and the `learnr` package (0.9.2.1). You need to have RStudio installed, but it is less crucial that you are using the most recent version (1.2.5001).

Do you already have R and RStudio installed?

- No - follow the instructions for “I do not have R installed”
- Yes - follow the instructions for “I have R installed”

“I do not have R installed”

You should install R, RStudio, `tidyverse`, and `learnr`.

Installing R

Windows:

1. Go to <https://cloud.r-project.org/bin/windows/base/>
2. Click the “Download R 3.6.1 for Windows” link.
3. When the file finishes downloading, double-click to install. You should be able to click “Next” to all dialogs to finish the installation.

Mac:

1. Go to <https://cloud.r-project.org/bin/macosx/>
2. Click the link “R-3.6.1.pkg”
3. When the file finishes downloading, double-click to install. You should be able to click “Next” to all dialogs to finish the installation.

Linux:

For any adventurous Linux users in our group follow this guide to install/upgrade to the most recent version of R on Ubuntu (18.04) or Mint (19).

Installing RStudio

1. Go to the RStudio download page.
2. Under “Installers for Supported Platforms” select the appropriate installer for your operating system
3. When the file finishes downloading, double-click to install. You should be able to click “Next” to all dialogs to finish the installation.

Installing tidyverse

1. Open RStudio
2. Go to Tools > Install Packages
3. Enter `tidyverse`
4. Select Install

Follow the same protocol for installing the `learnr` package, but replace `tidyverse` with `learnr`.

“I have R installed”

The workshops run more smoothly when everyone is using the same version of R, `tidyverse`, and `learnr`. Please update R, `tidyverse`, and `learnr` if necessary (and less crucially, RStudio).

Verify R version

Open RStudio. At the top of the Console you will see session info. The first line tells you which version of R you are using. If RStudio is already open and you’re deep in a session, type `R.version.string` in the console and enter to print out the R version.

Do you have R version 3.6.1 installed?

- No - follow the instructions for “Updating R”
- Yes - Great! Do you have `tidyverse` and `learnr` installed?
 - No or I don’t know - See “Installing `tidyverse`”
 - Yes - Great! Go to Go to Tools > Check for Package Updates. If there’s an update available for `tidyverse`, install it.

Updating R/RStudio/Tidyverse/learnr

Windows

To update R on Windows, try using the package `installr` (only for Windows).

1. Install and load `installr`:

```
install.packages("installr")
library(installr)
```

2. Call `updateR()` function. This will start the updating process of your R installation by: “finding the latest R version, downloading it, running the installer, deleting the installation file, copy and updating old packages to the new R installation.”
3. From within RStudio, go to Help > Check for Updates to install newer version of RStudio (if available, optional).

Mac

On Mac, you can simply download and install the newest version of R. When you restart RStudio, it will use the updated version of R.

1. Go to <https://cloud.r-project.org/bin/macosx/>
2. Click the link “R-3.6.1.pkg”
3. When the file finishes downloading, double-click to install. You should be able to click “Next” to all dialogs to finish the installation.
4. From within RStudio, go to Help > Check for Updates to install newer version of RStudio (if available, optional).
5. To update packages, go to Tools > Check for Package Updates. If updates are available, select All (or just `tidyverse/learnr`), and click Install Updates.

Linux:

Again, for any adventurous Linux users in our group follow this guide to install/upgrade to the most recent version of R on Ubuntu (18.04) or Mint (19).