

Lecture 0: Getting Started

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GitHub Education

We'll be using GitHub throughout our course for version control, content delivery, and [GitHub Classroom](#) for assignment submission.

To start, create an account on [GitHub](#) and register for a [student/educator discount](#)

- In Week 2 we'll walk through how to sync the course repository using [GitHub Desktop](#). Feel free to install it now too if you'd like, or wait to decide if it's right for you in Week 2.

Course Website

Speaking of, I will be using this class [Github Repository](#) to distribute all class materials. From here you can access course logistics, and all lecture-related files (i.e. slides and R Markdown files, datasets).

Course Software

Throughout this course we will require a few pieces of (free!) software:

- **R**
- **RStudio**
- Windows: **RTools**
- Mac: **macrtools**

You'll also need to create a **Github Education account**.

R vs. RStudio

- **R** is the **programming language**
- **RStudio** is the **environment** in which we use **R**

Installing R

To install **R**, go to the [R Project website](https://www.R-project.org/).

- **Windows:** "R For Windows > Base > Download R # for Windows"
- **Mac:** "R for (Mac) OS X > R-#.pkg"
- Where "#" is the current version number



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The Comprehensive R Archive Network

Download and Install R

Precompiled binary distributions of the base system and contributed packages, **Windows and Mac** users most likely want one of these versions of R:

- [Download R for Linux \(Debian, Fedora/Redhat, Ubuntu\)](#)
- [Download R for macOS](#)
- [Download R for Windows](#)

R is part of many Linux distributions, you should check with your Linux package management system in addition to the link above.

Source Code for all Platforms

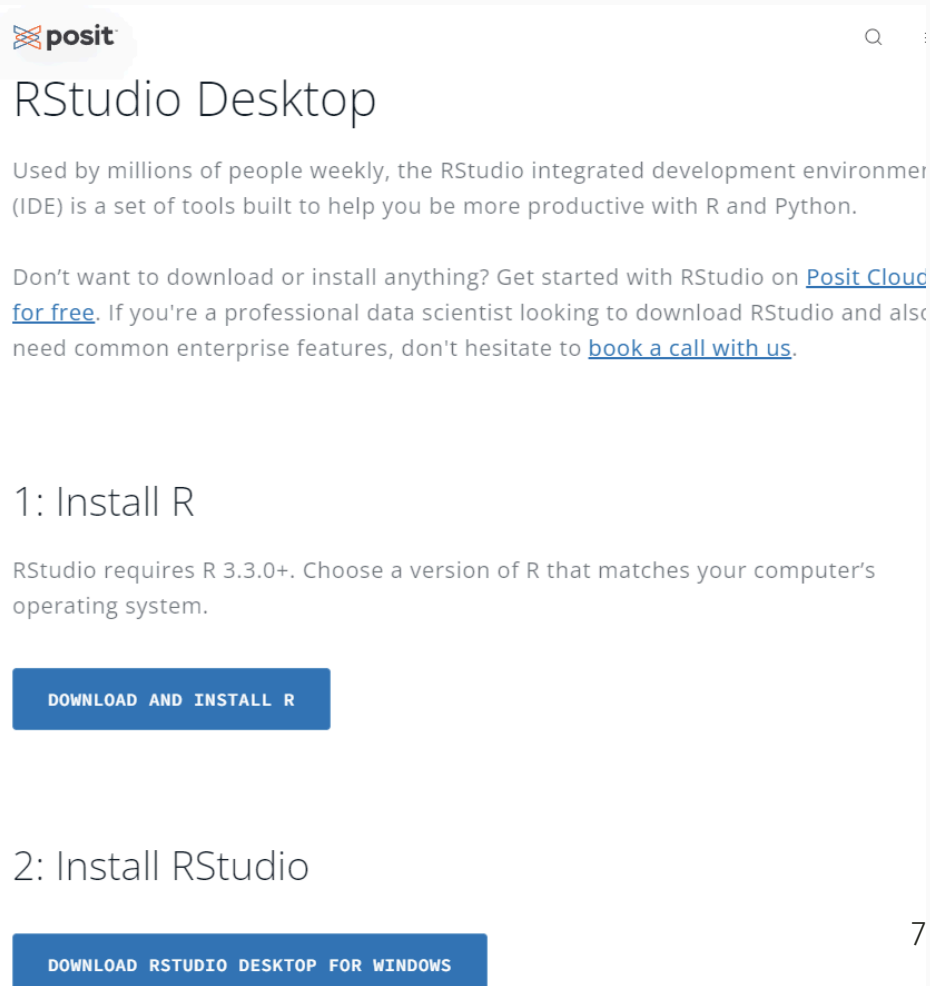
Windows and Mac users most likely want to download the precompiled binaries listed in the upper box, not the source code. The sources have to be compiled before you can use them. If you do not know what this means, you probably do not want to do it!

- The latest release (2023-06-16, Beagle Scouts) [R-4.3.1 tar.gz](#), read [what's new](#) in the

Installing RStudio

To install **RStudio**, go to the [RStudio Download Page](#)

- Scroll down, follow the link to install RStudio for your operating system.
- Correct file should be linked under **2. Install RStudio**
- Can scroll further down to the entire list and download the version for Windows or Mac.



The screenshot shows the RStudio Desktop download page. At the top is the Posit logo. Below it is the title 'RStudio Desktop'. A paragraph describes RStudio as an integrated development environment (IDE) used by millions of people weekly. Below this is a link to 'Posit Cloud for free' and a link to 'book a call with us'. The page is divided into two main sections: '1: Install R' and '2: Install RStudio'. Under '1: Install R', it states that RStudio requires R 3.3.0+ and provides a button labeled 'DOWNLOAD AND INSTALL R'. Under '2: Install RStudio', it provides a button labeled 'DOWNLOAD RSTUDIO DESKTOP FOR WINDOWS'.

posit

RStudio Desktop

Used by millions of people weekly, the RStudio integrated development environment (IDE) is a set of tools built to help you be more productive with R and Python.

Don't want to download or install anything? Get started with RStudio on [Posit Cloud for free](#). If you're a professional data scientist looking to download RStudio and also need common enterprise features, don't hesitate to [book a call with us](#).

1: Install R

RStudio requires R 3.3.0+. Choose a version of R that matches your computer's operating system.

DOWNLOAD AND INSTALL R

2: Install RStudio

DOWNLOAD RSTUDIO DESKTOP FOR WINDOWS

Windows: Rtools

Rtools is a toolchain bundle that will allow building R packages from source, which we'll need for installing packages that aren't listed on CRAN (i.e. only available direct from GitHub)

- Note: **Rtools** is only for **Windows**!

To install the current version of **Rtools**, navigate to the [Rtools website](#), download the installer, and follow the prompts.

Mac: macrtools

For Mac users, the **macrtools** replaces **Rtools**.

macrtools is a package that installs the R toolchain for mac

To install, run

```
# install remotes if your don't already have it  
if (!require("remotes")) install.packages("remotes")  
  
remotes::install_github("coatless-mac/macrtools")
```

To install the R toolchain, run

```
macrtools::macos_rtools_install()
```