

## R and RStudio Installation Guide (Windows)

### Installing R

1. Go to the CRAN R Project website. Here is the link: <https://cran.rstudio.com/>
2. Click on the **Download R for Windows** link.
3. Click on the **base** subdirectory link or **install R for the first time** link.
4. Click on **Download R-X.X.X for Windows** and save the executable .exe file.  
*Tip: X.X.X stands for the latest version of R e.g., 3.6.1*
5. Run the **.exe** file and follow the installation instructions.
6. Select the desired language and then click **Next**.
7. Read the license agreement and click **Next**. Only if you accept the terms and conditions, otherwise click **Cancel** to terminate the installation process.
8. Select the components you wish to install (). Click **Next**.  
*Tip: It is recommended to install all the components.*
9. Click **Browse...** to select the folder/path you wish to install R into and then confirm by clicking **Next**.
10. Select additional tasks like creating desktop shorts, Quick Launch shortcut.  
*Tip: Leave the default selection for the registry entries.*
11. Wait for installation process to complete and click on **Finish**.

### Installing R Studio Desktop

1. Go to the RStudio download website. Here is the link: <https://posit.co/download/rstudio-desktop/>
2. Scroll down the page and click on **Download Rstudio Desktop for Windows** and save the .exe file.
3. Run the .exe file and follow the installation instructions.
  - a. Click **Next** on the welcome window.
  - b. Click **Browse...** to select the folder/path you wish to install RStudio into and then confirm by clicking **Next** to proceed.
  - c. Select the folder for the start menu shortcut or click on do not create shortcuts and then click **Install**.
4. Wait for installation process to complete and click on **Finish**.

Most of the R packages used for the GWU Data Science program requires an additional add-on, R Tools, to run optimally.

### Installing R Tools

1. Go to the CRAN R Project website. Here is the link: <http://cran.r-project.org/bin/windows/Rtools/>
2. Click on the most recent version available and save the .exe file.
3. Run the .exe file and follow the installation instructions.
  4. Read the license agreement and click **Next**. Only if you accept the terms and conditions, otherwise click **Cancel** to terminate the installation process.
  - d. Click **Browse...** to select the folder/path you wish to install Rtools into and then confirm by clicking **Next** to proceed.
  - e. Check the boxes for the components required (it is recommended to install all the components) and click **Next**.  
*Tip: It is recommended to install all the components.*

- f. On the **Select Additional Tasks** step, check all boxes and click **Next**.
  - g. On the **System Path** step, leave as is and click **Next**.
  - h. On the next screen, click on **Install**.
5. Wait for installation process to complete and click on **Finish**.

### Loading Libraries on RStudio Desktop

1. From the console, enter `install.packages("ggplot2")`.
2. After successfully installing the ggplot2 package, load the library by running `library(ggplot2)`.
3. Enter `install.packages("devtools")` to install the devtools package, then load the library by running `library(devtools)`.
4. To install the "ezids" package, run `install_github("physicsland/ezids")` from the console.  
*The ezids library is a special purpose library embedded with helper functions for Introductory R programming classes for GW Students.*

#### Note:

If all steps have been followed, RStudio should run fine on your machine. If, however, troubleshooting and support is required, please contact that Data Science Helpdesk to resolve<sup>1</sup>.

Click [HERE](#) to schedule a meeting with the Helpdesk!

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<sup>1</sup> This document was last updated on April 24, 2023

## R and RStudio Installation Guide (MacOS)

### Installing R

12. Download R from the CRAN R Project website. Here is the link: <https://cran.us.r-project.org/>
13. Click on **Download R for (Mac) OX X.**
14. Click on **R-X.X.X-arm64.pkg** (if you have a newer MacBook edition) or **R-X.X.X.pkg** if you have an Intel Mac.  
*Tip: X.X.X stands for the latest version of R e.g., 3.6.1*
15. Open the downloaded file and follow the installation instructions.  
*Tip: Leave all default settings in the installation prompt.*
16. Wait for installation process to complete and click on **Finish.**

### Installing RStudio Desktop

5. Go to the RStudio download website via this link: <https://posit.co/download/rstudio-desktop>
6. Scroll down the page and click on **Download Rstudio Desktop for Mac** and save the file.
7. Open the downloaded file and drag installed app to the **Application** folder.  
*Tip: Leave all default settings in the installation prompt.*
8. Launch the Terminal from the Applications folder or Docker and run the code below to accept the Xcode license for Rstudio:

```
sudo xcodebuild -license accept
```

### Loading Libraries on RStudio Desktop

9. From the console, enter `install.packages("ggplot2")`.
10. After successfully installing the ggplot2 package, load the library by running `library(ggplot2)`.
11. Enter `install.packages("devtools")` to install the devtools package, then load the library by running `library(devtools)`.
12. To install the "ezids" package, run `install_github("physicsland/ezids")` from the console.  
*The ezids library is a special purpose library embedded with helper functions for Introductory R programming classes for GW Students.*

#### Note:

If all steps have been followed, RStudio should run fine on your machine. If, however, troubleshooting and support is required, please contact that Data Science Helpdesk to resolve<sup>2</sup>.

Click [HERE](#) to schedule a meeting with the Helpdesk!

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<sup>2</sup> This document was last updated on April 24, 2023