

# Installation Instructions - Week 1

This sheet contains the instructions to install the packages used in the course. You may have some of the software already installed / accounts created, in which case you can skip the respective steps.

As a first step, please complete the general set up (p. 1).

As a second step, there are two options to install the software:

- a) Manual Installation (p. 2).
- b) Installation via a package manager (p. 3 for windwos; p. 4 for macOS).

As a third step, please complete the general set up (p. 3 bottom).

The installation via the package manager is generally recommended if you are already working with either homebrew or chocolatey (= choco). If you have not worked with a package manager before, we will introduce you to it as part of the course.

## Step 1: General Setup

1. Create a GitHub Account
  - o <https://github.com/signup>
2. Install Teamviewer
  - o <https://www.teamviewer.com/en/content/free-download-with-license-options/>

## Step 2: Software Installation

### a) Manual Installation

- R
  - Go to <https://cloud.r-project.org/>
    - R for Windows -> base
    - Download for current version:  
<https://cloud.r-project.org/bin/windows/base/R-4.3.2-win.exe>
  - Install with default options (unless you are a proficient user. Other packages typically assume you chose the default settings and will be easier to integrate.)
- RStudio Desktop
  - <https://posit.co/download/rstudio-desktop/>
  - Install with default options.
- Pandoc
  - <https://pandoc.org/installing.html>
  - Click "Download the latest installer".
  - Use MSI to install pandoc.
    - Alternatively .zip would download a file that can be executed but is not installed on your system.
  - Select "Install for all users of the machine".
    - This is less a problem on windows, but on mac and unix machines it is quite common that you, or a program you execute, is internally counted as a different user.
  - <https://github.com/jgm/pandoc/releases/tag/3.1.9>
- Quarto
  - <https://quarto.org/docs/get-started/>
    - Activate Option: "Install for all users of the machine".
    - Other than that use default options.
- Tinytex
  - install via R:
    - `install.packages('tinytex')`
    - `tinytex::install_tinytex()`
  - detailed instructions: <https://yihui.org/tinytex/>
- VScode
  - <https://code.visualstudio.com/>
    - Select "Stable Build" option for download.
  - Install with default options.
- Git
  - <https://git-scm.com/downloads>
  - choose 64bit.
- Github Desktop
  - <https://desktop.github.com/>
  - install with default options.

## b) Package Managers

For windows:

Install Choco (package manager)

Choco is a package manager for windows. We will discuss package managers in the course.

- Detailed instructions for installation: <https://chocolatey.org/install>
- Type Powershell into program search and click *Run as administrator*
- Set-ExecutionPolicy Bypass -Scope Process -Force;  
[System.Net.ServicePointManager]::SecurityProtocol =  
[System.Net.ServicePointManager]::SecurityProtocol -bor 3072; iex ((New-Object  
System.Net.WebClient).DownloadString('https://community.chocolatey.org/install.ps1'  
))

Install the packages from the package manager

- R
  - `choco install r.project -y --params "/AddToPath"`
- RStudio Desktop
  - `choco install r.studio -y`
- Pandoc
  - `choco install pandoc -y`
- Quarto
  - `choco install quarto -y`
- Tinytex
  - `choco install tinytex -y --params "/AddToSystemPath"`
- VScode
  - `choco install vscode -y`
- Git
  - `choco install git -y --params "/Editor:VisualStudioCode"`
- Github Desktop
  - `choco install github-desktop -y`

For macOS

### Install Homebrew

Homebrew is a package manager for macOS. We will discuss package managers in the course.

- Detailed instructions for installation: <https://brew.sh/>
- open terminal
- ```
/bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"
```

Install the packages from the package manager

- R
  - `brew install r`
- RStudio
  - `brew install --cask rstudio`
- Pandoc
  - `brew install pandoc`
- Quarto
  - `brew install --cask quarto`
- Tinytex
  - not available on homebrew, please follow the manual installation
- VScode
  - `brew install --cask visual-studio-code`
- Git
  - `brew install git`
- Github Desktop
  - `brew install --cask github`

## Step 3: Finalize the general Setup

1. Complete the setup of RStudio after installation.
  - Open RStudio.
  - If asked to select an R version, choose the default x64 version.
  - Create a Quarto document.
    - click on yes, when asked to update the packages.
  - Create an R Markdown document.
    - click on yes, when asked to update the packages.