What are R and RStudio

R

- R[1] is a programming language specifically designed to perform statistical work. It has been designed from the ground up with that goal in mind.
- It is freely available for use and has a strong community of behind it.
- One of its most exciting facilities is R-Markdown documents[2] which allow you to combine the code for statistical computations together with your analysis into a single document, which leads to what is known as **reproducible research**.
- A lot of the power of R comes from the various add-on packages[3] that can be installed and enhance/-customize the language's capabilities. Whatever your particular data analysis needs are, changes are there's a package for you.

R Studio

- RStudio[4] is a user-friendly environment for working with the R language. The R-Studio team offers a number of packages and prices, including a quite powerful free version.
- While you can install RStudio on your own local machine, we will be using the **RStudio Server** setup, which allows us to manage the installation in one centralized location.
- Most importantly our RStudio server can be accessed through standard web browsers from anywhere in the world as long as you have valid Hanover College credentials.

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[1] https://www.r-project.org/
[2] whatAreRMarkdownDocuments.html
[3] packagesAsToolboxes.html
[4] https://www.rstudio.com/