

Manuscripts in Rmarkdown

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Objectives for learning Rmarkdown

1. Understand the features of Rmarkdown and why using it to write scientific documents may be useful
2. Create an Rmarkdown file and assemble it into an HTML, PDF, or DOCX document using knitr in Rstudio
3. Apply basic integration of R code into Rmarkdown to analyse data and plot results in output
4. Be able to navigate to the [accompanying Rmarkdown notes](#) and make use of them for additional tools
5. Continue asking questions and sharing tips in the Rmarkdown repository [issues page](#) on GitHub

Where did Rmarkdown come from?

Microsoft Word (1983)	L ^A T _E X(1980)
<ul style="list-style-type: none">- Used in the life sciences- What you see is what you get- Proprietary software- Low learning curve- No analysis integration	<ul style="list-style-type: none">- Used in maths and physics- Edit files in plain text (code)- Free software- High learning curve- No analysis integration

Rmarkdown (2012) is free software with a **relatively low learning curve** in which authors write in plain text and can easily integrate R analyses, citations, and tables or figures.

Why is Rmarkdown worth learning?

- ▶ Learning is a relatively low additional time investment if already invested in R
- ▶ Produces high quality [HTML](#), [PDF](#), and [DOCX](#) documents with the push of a button from an [Rmd file](#) in Rstudio
- ▶ Removes the need to format citations manually (with BibTeX)
- ▶ Allows users to insert images and equations seamlessly
- ▶ **Complete integration of data analysis and manuscript**
(no copy-pasting when values or figures change)

You do not need to learn everything at once for Rmarkdown to be useful. If you get stuck or cannot figure out how to do something, you can always knit a DOCX and work from there.