

R/LaTeX/Markdown workshop pre-requisites and EPA installation instructions

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1 Basic info about the workshop

Day	Time	Room
Tues, Sept 11	8:30-11:30am	C111C

This 1/2-day workshop will provide attendees with hands-on experience using the basics of LaTeX, Markdown, and the R package knitr. After attending this workshop, you will be able to use these tools to facilitate reproducible reports and research with R.

2 You will need

It is expected that you have some familiarity with R and RStudio, can install packages from CRAN, and understand basic R syntax.

We will be using R, RStudio, and MiKTeX during this workshop. These must be installed prior to September 11.

- R, RStudio
- MiKTeX
- R packages:
 - knitr
 - ggplot2 (or all of tidyverse)
 - pandoc

2.1 R and RStudio

Simply email EZTech, now “EISD”, at EISD@epa.gov) and request that R and RStudio be installed on your machine. They will usually push that out within a day or so.

2.2 MiKTeX

1. Go to <https://usepa.sharepoint.com/sites/EZForms/SitePages/Home.aspx>
2. Under Create a Request, click on ”Freeware/Shareware”
3. Fill out your employee info
4. For “Justification”, say: Needed in conjunction with R and associated packages to create self-contained documentation and reports using R. This makes the paradigm of reproducible research feasible with data analysis. MiKTeX is a bundling of the TeX and LaTeX typesetting tools for Windows OS. The website for MiKTeX base download and installation is: <https://miktex.org/download>
5. For “Software Title”, say: MiKTeX
6. Enter supervisor name

2.3 R packages

We will be using particular packages/libraries during the workshop that you will need to install in RStudio. You can follow the instructions below to do so:

1. Run R studio
2. Click on the Packages tab in the bottom-right section and then click on install. A dialog box will appear.
3. In the Install Packages dialog, write the package name you want to install under the Packages field and then click install. This will install the package you searched for or give you a list of matching package based on your package text.

You will need to install these packages, if they are not already installed:

- knitr
- ggplot2
- pandoc