



Using dragondown to Write Your Thesis

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Agenda

1. Introduction
2. What is Rmarkdown
3. Using **dragondown**
4. Live Demo
5. Version Control

a reproducible workflow





What is dragondown?

- **dragondown** is an R package that allows you to write your thesis in Rmarkdown
- Provides the required templates to properly format your thesis or dissertation in the Drexel format
- Easily integrate text, code and outputs
- Allows you to focus on your research and not think about the minute formatting details often required with other text editors (e.g. LaTeX)



What is Rmarkdown?

A framework for authoring documents allowing you to easily integrate code and text to produce high quality output!

Benefits:

- Integrate code directly into your text in a variety of languages (e.g. R, python, SQL, etc.)
- Reduces copy/pasting
- Allows users to integrate version control effectively
- Easily re-render if data (or anything else) changes

Dependencies

1. R
2. RStudio
3. LaTeX*
4. Git or equivalent version control system
 - See [Happy Git with R](#) for more instructions
5. Python and `[reticulate]**`

If you want to use python in your Rmarkdown documents. See [here](#) if you are interested in learning more

Using `tinytex` is the easiest way to deal with this for R users



Live Demo



Why use dragondown?

dragondown takes all of the benefits of using Rmarkdown and wraps them up with a shiny bow*

Allows you to break about your dissertation chapters to make them more manageable while still bundling them all together correctly

Provides a structured framework for effectively storing all of the materials associated with your dissertation

Reproducibility

*shiny bow includes handling all formatting requirements of a Drexel dissertation



The shiny bow (i.e. formatting)

Writing a thesis is hard enough, why kill yourself worrying about something as minute as matching **exact formatting requirements?**

If you write your thesis using the **dragondown** package, then the formatting is automatically handled for you with the help of a custom LaTeX template!

The image shows a sample of the Drexel University Graduate Thesis/Dissertation Approval Form and Signature Page. The form includes fields for the author's name, title, and department, as well as sections for committee members' names, titles, and signatures. The Drexel University logo is visible in the top left corner of the form.



Managing your chapters (i.e. index)

dragondown provides a structured framework for organizing your thesis

You can keep all of the files required for your thesis (e.g. book chapters, figures, R scripts)

```
live-examples/index
├── 01-chap1.Rmd
├── 02-chap2.Rmd
├── 03-chap3.Rmd
├── 04-conclusion.Rmd
├── 98-references.Rmd
├── 99-appendix.Rmd
├── _book
│   ├── thesis.pdf
│   ├── thesis.tex
│   ├── bookdown.yml
│   └── bookdown_files
│       ├── thesis_cache
│       ├── latex
│       ├── _packages
│       ├── pressure_25293cdac8eae1a4e2086266bdb915b8.RData
│       ├── pressure_25293cdac8eae1a4e2086266bdb915b8.rdb
│       └── pressure_25293cdac8eae1a4e2086266bdb915b8.rdx
│   └── thesis_files
│       ├── figure-latex
│       ├── delaysboxplot-1.pdf
│       ├── march3plot-1.pdf
│       └── pressure-1.pdf
├── bib
│   ├── thesis.bib
│   └── chemarr.sty
├── csl
│   └── apa.csl
├── data
│   └── flights.csv
├── docs
│   ├── approval-form.pdf
│   ├── drexel-thesis.pdf
│   └── drexel-thesis.cls
├── figure
│   ├── drexel-logo.pdf
│   └── subdivision.pdf
├── index.Rmd
├── template.tex
└── thesis.log
```



`_bookdown.yml`

```
book_filename: "thesis"
chapter_name: "Chapter "
rmd_files: ["index.Rmd", "01-chap1.Rmd", "02-chap2.Rmd", "03-chap3.Rmd", "04-
conclusion.Rmd", "98-references.Rmd", "99-appendix.Rmd"]
download: [["thesis.pdf", "PDF"], ["thesis.epub", "EPUB"], ["thesis.docx", "Word"]]
delete_merged_file: true
```

- **chapter_name**: sets the prefix for your chapters
- **rmd_files**: List the order of all of your .Rmd files. If you add a chapter then you need to add it here to include it in your book



index.Rmd

```
---
author: 'Your R. Name'
month: 'May'
year: '2019'
institution: 'Drexel University'
# If you have multiple advisors, add a second, third, etc. line with the same
# syntax as the first
advisor:
- 'Advisor F. Name'
department: 'Mathematics'
degree: 'Doctor of Philosophy'
title: 'My PhD Dissertation'
knit: "bookdown::render_book"
site: bookdown::bookdown_site
output:
dragondown::thesis_pdf: default
# dragondown::thesis_gitbook: default
# dragondown::thesis_word: default
# dragondown::thesis_epub: default
abstract: |
Here is my abstract
acknowledgments: |
I want to thank a few people.
dedication: |
You can have a dedication here if you wish.
# Specify the location of the bibliography below
bibliography: bib/thesis.bib
#Specify a copyright
copyright: |
All Rights Reserved.
vita: |
The Vita is a biography of the student written in the third person in either essay or outline form. It should include full name, place and
date of birth (optional), country of citizenship (optional), institutions attended, degrees and honors received, titles of publications,
teaching and professional experience, and other pertinent data. The vita should be one page or less
# Download your specific csl file and refer to it in the line below.
csl: csl/apa.csl
toc: true
lot: true
lof: true
# location of drexel thesis/dissertation approval form
approvalform: docs/approval-form.pdf
---
```



Reproducibility

Using this framework makes it easy for people (**including yourself**) to recreate your work because all of the data, analysis, and text are in the same place



Live Demo