

Preparing Your Thesis with Microsoft Word: How to use the Rensselaer Polytechnic Institute Template Files

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1. Introduction

To create a long document like a thesis in Microsoft Word, you need a suitable *template* that contains the appropriate styles and settings. Every paragraph (including headings) in Word has a "style" associated with it. A style is a collection of formatting instructions, including font family and point size, alignment, amount of space before and after the paragraph, etc. When creating a long structured document like a thesis, it is important to apply styles consistently.

The Rensselaer thesis template (**RPIthesis.dot**), available for download, conforms to the requirements of the Graduate School. It includes styles for chapter and section headings (with automatic numbering), as well as regulation margins, page number placement, automatic formatting of title pages, and Table of Contents compilation.

2. Downloading the RPI Thesis Template and Prototype Files

You will need to download several files, all found on the web at:

<http://www.rpi.edu/dept/arc/docs/word-thesis/>

1. First, download the Microsoft Word Template file **RPIthesis.dot**: right-click on the link, select "Save Target as", and place it in the Microsoft Office Templates folder.
In Win2K and WinXP this folder is usually located at:
C:\Documents and Settings*your-userid*\Application Data\Microsoft\Templates
[Note that "Application Data" is a hidden folder, and to see it, you may need to open a folder such as "My Documents" and go to **Tools > Folder Options > View** tab, then select "Show hidden files and folders".]
2. Next, copy two Word prototype files: one contains the boiler-plate text for the title page as well as pages to use for Abstract, tables of contents, etc.; the other is for creating a separate file for just the abstract title page and abstract. Place these files in the folder you will use for your thesis, such as "My Documents\Thesis". The files you want to download are:

For a masters thesis:

RPIfrontpages-mas.doc
RPIabstitlepage-mas.doc

For a doctoral thesis:

RPIfrontpages-phd.doc
RPIabstitlepage-phd.doc

3. About the RPI Thesis Template

The general layout of the Rensselaer thesis template is as follows:

- Top and bottom margins are 1 inch.
- Left margin is 1.55 inches.
- Right margin is 1 inch.
- Footer, which contains the page number, is 0.5 inch from edge of the paper.
- Line spacing is "line and a half" (acceptable to Graduate School).
- Font of body paragraphs is Times Roman, 12 points.

The RPIthesis template provides the following Microsoft Word paragraph styles:
(The Frontmatter heading and Headings 1-3 are included in the Table of Contents by default.)


Title	for the Title of the thesis.
Frontmatter	for “Abstract” and similar headings that are not numbered.
Heading 1	for chapter headings. Numbered, centered, starts a new page.
Heading 2	for section headings. Numbered, left-justified.
Heading 3	for subsection headings. Numbered, left-justified.
Headings 4-6	for subsubsection headings, etc., if needed .
Body Text	for paragraphs that are not indented. This is the default style for paragraphs following section headings.
Body Text First Indent	for indented paragraphs. This is the default for all other body paragraphs.
Caption: Figure	can be used to reformat an existing figure caption in boldface and in the same size font as the rest of the document.
Caption: Table	can be used to reformat an existing table caption in boldface and in the same size font as the rest of the document.
Block Quote	for single-spaced quotations, set off and indented left and right.
Bibentry	can be used for bibliography items. It uses single spacing, and subsequent lines have a hanging indent.

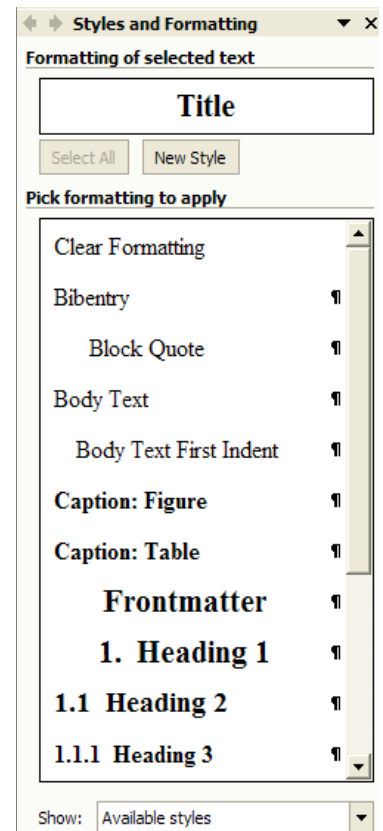
4. Applying the Template and Using Styles (Word 2003 and earlier)

To get started, first open the appropriate frontpages file (either **RPI-frontpages-mas.doc** or **RPIfrontpages-phd.doc**). Then to apply the template, go to **Tools** → **Templates and Add-Ins** and click **Attach**. Word will present you with a list of templates, and if you placed the RPI thesis template in the correct place (see page 1), it will be among the choices: select **RPIthesis.dot** and click on **Open**. Then click in the box next to “Automatically Update Document Styles” and click OK.

All your front matter (which includes the title page, all the tables of contents, acknowledgement, abstract, etc) are in this file. If your thesis is relatively short, and you want it all in one file, you can create the entire thesis by adding to this file (see Section 6). For a long thesis, leave this file for just the front pages, and create each new chapter as a separate file (see Section 7). Later, you will start with the front pages file and append all the chapter files, as described in Section 14.


As mentioned previously, *it’s very important to use the template’s styles as you work*, particularly for the headings. First, to make sure Word will display the template styles rather than ad hoc formatting choices, go to **Tools** → **Options** and select the **Edit** tab. Uncheck the box next to “Keep track of formatting.” Next, open the **Styles and**

Formatting task pane by clicking the **Styles and Formatting** icon  on the **Formatting** toolbar (top left). The pane on the right side of the Word window should look like the picture on the right. Make sure the box next to “Show” at the bottom says “Available Styles.”



To apply a style, do the following:

1. Click the words or paragraph to which you want to apply the style. Or, just click in the spot where you'd like to begin typing in a certain style, such as a heading.
2. Find the style you want in the **Styles and Formatting** task pane and click its name.

Alternatively, you can close the task pane on the right and apply a style by simply clicking the down-arrow to the right of the **Style** box  on the **Formatting** toolbar. Scroll to find the style you want and click on it.

Note that when you click in a paragraph, its style is displayed in the Style box.

5. The RPIfrontpages File

In the RPIfrontpages prototype file, the first page is the RPI thesis title page. You will need to replace the title, author, advisers, etc. with your own information. For “Major Subject” provide your area of study, such as Mathematics, Mechanical Engineering, Physics, etc. You can delete the copyright page if you don't want it. For now, leave all the Tables of Contents pages as they are (empty); they will get filled in later after you complete the thesis. (See Section 16). After typing your own information, you can save this file with a different name if you wish.

6. Putting the Thesis All in One File (short thesis)

If your thesis is relatively short, you can use your frontpages file for the whole thesis. Start your first chapter by moving to the end of the file (use **Ctrl-End**).

- Go to **Insert** → **Break**; under **Section break types**, select **Next page**. Click **OK**.
- Position the cursor on the new page and from the style choices, select **Heading 1**. Type the title of your first chapter, and press Enter.
- Go to **Insert** → **Page Numbers....**
 - For Position, select **Bottom of page**; for Alignment, select **Center**; check the box for **Show number on first page**.
 - Click **Format...**
 - For Number format, select **1, 2, 3 ...** from the pull-down menu.
 - For Page numbering, select **Start at 1**. Click **OK**.
- Click **OK**.

Note: If the page number “1” doesn't appear on the bottom center of your first page, go through the **Insert** → **Page Numbers....** procedure once more.

To add subsequent chapters, just select the “Heading 1” style. The heading will start a new page, and the page numbering will continue from the previous chapter. Continue to write the thesis by applying the various heading styles as needed for sections and subsections. It is essential to use the heading styles provided by this template! Styles for Heading 1 through Heading 6 will format the headings correctly in your chapters and mark the headings (by default levels 1-3) for proper inclusion in your Table of Contents.

See Section 16 for instructions on how to update your tables of contents, cross references, etc.

7. Creating the Chapters as Separate Files (long thesis)

If your thesis is long, it is easier to work with smaller files, and should anything happen to destroy a file, you lose less of your work. Start a new file for each chapter, using the RPI thesis template: first start Word, then go to **File** → **New**, find **RPIthesis.dot** in the list, and click its name.

While working, it is essential to use the heading styles provided by this template! Styles for Heading 1 through Heading 6 will format the headings correctly in your chapters and mark the headings (by default levels 1-3) for proper inclusion in your Table of Contents. The chapter numbering and page numbering will start with “1” in each file, but after you assemble the chapters (see Section 14), the numbering will be sequential.

8. Inserting Figures, Tables and Captions

Note that captions for tables usually go above the table, while captions for figures go below the figure.

Insert a table into your document by going to the **Table** menu, click **Insert**, then **Table**. Choose the number of rows and columns, then enter your data. To make a caption, click somewhere inside the table, and go to:

Insert → **Reference** → **Caption**, making sure the **Label** box says “Table” and the **Position** box says “Above selected item”. The text “Table 1.1” will be inserted above your table. Follow this with the text of your caption. By default, the caption will be left-aligned and in a smaller font. To put it in the same size font as the rest of the document, highlight the entire caption (left-click 3 times) and apply the style “Caption: Table”. To center it (recommended for one-line captions), simply select the entire caption and click the Center icon on Word’s Formatting toolbar.

Insert a figure in your document either by creating a drawing or by inserting a picture from a file. Make the caption in the same way as for a table: select the figure and go to

Insert → **Reference** → **Caption**, this time making sure the **Label** box says “Figure” and the **Position** box says “Below selected item”. To put it in the same size font as the rest of the document, highlight the entire caption (left-click 3 times) and apply the style “Caption: Figure”. To center it (recommended for one-line captions), simply select the entire caption and click the Center icon on Word’s Formatting toolbar.

To refer to a figure or table in your document (for example “see Figure 1.2”), see the instructions in Section 11, *Cross References*.

9. Equations

If you have more than a few equations, we recommend using MathType from Design Science. This program, which is based on TeX, integrates with Word by extending the capabilities of Word’s equation editor and providing an additional MathType menu. See <http://www.mathtype.com/>. The academic price is \$57. However, if your thesis is heavy on mathematics, you may want to consider using LaTeX instead of Word to create your thesis. See <http://helpdesk.rpi.edu/update.do?artcenterkey=325>.

10. Footnotes

Create a footnote by using the **Insert** menu: choose **Reference**, then **Footnote**. The default gives you continuously numbered footnotes; you can change this behavior, if you wish, by entering your preferences in the appropriate boxes in the Footnote window. When ready, click the “Insert” box and type the text of your footnote at the bottom of the page. To return to the place in your document where you working, click the **Close** button (if you are working in Normal view) or double-click the footnote number (if you are working in Print Layout view).

11. Cross References

You can only cross-reference items in the same document. Therefore, before inserting references, first assemble your chapters into one document, as described in Section 14.

In the text of your document, you can insert references to several different types of information, such as section headings, figures, and tables. Note that in order to refer to figures and tables, you must create the captions using the “Insert Caption” dialog as described in Section 8.

- First place the cursor where you want to create the cross reference in your text.
- From the **Insert** menu choose **Reference**, then **Cross-reference**.
- In the **Reference type** box, click the type of item you want to refer to (such as figure, table, or heading).
- In the **Insert reference to** box, click the information you want to insert (for example, “only label and number”).
- In the **For which** box, click the specific item you want to refer to, such as the particular caption to which you are referring.
- Click **Insert**, then **Close**.

12. Quotations

A *block quotation* is a long quotation, too long to go inline. It appears in the document as a separate paragraph, indented from both left and right, smaller line spacing, and separated from the paragraphs above and below by some vertical space. To make a block quotation, just apply the style “Block quote”.

13. Back Matter

To create headings for appendices or a bibliography, use the “Heading 1” style if you want these sections to be numbered sequentially with your chapters. If you don’t want them numbered, use the “Frontmatter” heading style.

To format your bibliography entries using hanging indentation, use the “Bibentry” style.

14. Assembling the Thesis from Separate Files

If your thesis is in separate files, you will build the entire thesis by opening the file containing your front matter and then appending each subsequent file in turn, as follows:

First, save and close all chapter files.

Next, open your frontpages file and use “Save as” to give it a name appropriate for your whole thesis. (Doing this preserves your original frontpages file for backup purposes.)

Add the *first* chapter to the end of the frontpages file, as follows:

1. Go to end of the introductory pages (**Ctrl-End**)
2. Go to **Insert** → **Break**, under **Section break types**, select “Next page”
3. Place cursor at top of newly created page, then:
4. Go to **Insert** → **File**, select the file containing the chapter.

For the first chapter *only*, you will also need to:

- Place the cursor somewhere in the chapter; go to **Insert** → **Page Numbers....**
 - For Position, select **Bottom of page**; for Alignment, select **Center**; check the box for **Show number on first page**.
 - Click **Format...**
 - For Number format, select **1, 2, 3, ...** from the pull-down menu.
 - For Page numbering, select **Start at 1**. Click **OK**.
- Click **OK**.

For each *subsequent* chapter, repeat the following procedure:

1. Go to the end of last chapter that you added (press **Ctrl-End**).
2. Go to **Insert** → **File**, select the file containing the chapter.

15. Building the TOC, List of Tables and List of Figures

The Table of Contents will automatically get filled in when you update (see below), but you will need to initially build the LOT and LOF yourself:

15.1 To build the List of Tables

1. Go to the page with the heading “List of Tables”
2. Click underneath the heading
3. Go to **Insert** → **Reference** → **Index and Tables**
4. Select Table of Figures (yes, really!)
5. For Caption label, select “Table”
6. Be sure the Format says “From Template”
7. Click OK

15.2 To build the List of Figures

1. Go to the page with the heading “List of Figures”
2. Click underneath the heading
3. Go to **Insert** → **Reference** → **Index and Tables**
4. For Caption label, select “Figure”
5. Be sure the Format says “From Template”
6. Click OK

16. Updating the Numbering for Tables of Contents, Figure Captions, Table Captions, Equations, Cross References

Note that when you insert new captions, Word automatically updates the numbering of all the other captions. But if you delete or move captions, you need to explicitly update, using one of the methods below.

To update a single field, you can click in a field (e.g., a table number or a cross reference) and then press F9. Likewise, to update a list, such as the List of Figures, click in the list, then press F9. To update all fields in a document including Figures, Tables, Cross References, Equations, TOC, LOT and LOF, click **Select All** on the **Edit** menu, and then **press F9**.

You now have a completed thesis!

17. Creating the PDF Files for Electronic Submission

Rensselaer requires that electronically-submitted theses or dissertations be in Adobe Portable Document Format. Both Masters and Doctoral candidates will need to submit two PDF files:

1. A PDF file containing the complete thesis or dissertation
2. A PDF file consisting of the *abstract title page* and the abstract. (Note that the abstract title page is not the same as the title page for the thesis or dissertation.)

For detailed instructions on creating the PDF files, see [Creating a PDF File from a Microsoft Word Thesis](#).