

## An “Essay Class” for L<sup>A</sup>T<sub>E</sub>X Preparation of MIT Thesis

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### 1 Introduction

I’ll make this a very short (but hopefully very useful) document, to do this, I assume you know the basics of L<sup>A</sup>T<sub>E</sub>X. You may find many resources on the Internet to learn L<sup>A</sup>T<sub>E</sub>X. A good place to start is: <http://web.mit.edu/olh/Latex/thes-latex.html>

From the above website, you know that MIT offers a Template for thesis. The webpage has detailed instructions on obtaining it.

The template is inherited from the common base class “report.cls”. And it generates very elegant outputs to meet the requirements for thesis.

However, the template is written with a book-type thesis in mind, people writing an essay-type thesis may find it difficult to meet their needs. This document, and the companion class is here to rescue.

### 2 What’s wrong with mitthesis.cls?

Users are assumed to write chapters for this book, so document-wide counters all bear the chapter number.

For example, tables are named like “Table 3.4”, where “3” is the chapter number and “4” is the Table number. Similarly, sections are called “Section 5.2”, where “5” is actually the chapter number. This is ok in a book-type thesis, but does not make much sense in an essay-type thesis.

A second problem is that for each “Essay”, there are some required formats (like the chapter title page) that the class can not address.

A third problem is that the report class can not handle separate chapter bibliography files.

In the `essayclass`, I address all these problems.

### 3 Where to start?

First of all, you need to download the `mitessay.cls` file from my website. You can get the whole package in zipped formats, too. Then you need to follow my instruction below to modify your own `chapter/essay` files to be included in the `main.tex` file.

The MIT thesis website mentioned above gives you a lot of information on using the files `mitthesis.cls`, `main.tex`, `cover.tex`, etc. I skip these.

### 4 Step 1

Open `mitessay.cls` file with any text file editor, scroll down to change “Michael Zhang” to your own name, and “MIT Sloan School” to your own dept. (Sorry, I was lazy to create a variable to pass along the values. :-p)

Get, from your essays (I assume they are regular `LATEX` files), the preambles, and put them into the file called `custzxq.sty`, feel free to delete unnecessary packages already in there. The first package

```
\usepackage[sectionbib]{chapterbib}
```

is important, though. You need it to have chapter-specific references.

### 5 Step 2

Open your chapters, delete all the preambles till the title of the essay.

Do the following for all the essay files: at the beginning of the file, add two lines:

```
\setcounter{chapter}{1}
```

```
\renewcommand{\thechapter}{\arabic{chapter}}
```

They help to reset the chapter number to be correct if you have Appendices in some of the papers. Change the number `{1}` to that corresponding to the chapter number. Since `report.cls` starts the chapters from 0, you need to subtract 1 from your real chapter number. So the example actually shows the modification needed for chapter 2.

Change:

```
\title{What Ever the Title Your Paper Has}
```

to

```
\chap{What Ever the Title Your Paper Has}
```

That was easy, isn't it?

Now you need to send some environment variables BEFORE the `\chap` command.

Here is my list, you can change the text in the brackets.

```
\abstracts{
  Vel te lorem nostrud ullamcorper, ex iusto illum feugiat velit
  praesent blandit velit vel laoreet. Vel, ipsum qui nulla, zzril in
  accumsan tation qui vero at dolore – ullamcorper eros iusto,
  elit. Sed in te zzril consectetur ad nulla aliquam dolore,
  nonummy, delenit sed wisi, te. Lobortis nonummy; dolore
  dignissim iusto facilisi, dignissim minim elit, veniam
  molestie consequat, at.
}
\dates{
  December, 2004
}
\keywords{
\textbf{Keywords:} some random keywords
}
\notes{
  This paper is based on joint work with ...
}
\thankyous{
  This research has benefited from valuable comments from ...
}
```

## 6 Step 3

Go to the end of the document, delete: `\end{document}`. You are all set to compile the files!

## 7 Conclusion

I introduce a new class for L<sup>A</sup>T<sub>E</sub>X that provides one quick and dirty way to compile an essay-type thesis. This is done with quick hacks, feel free to modify it anyway you like. I hope this can be useful for other people. It may well save you a few hours (if you are good at L<sup>A</sup>T<sub>E</sub>X) of time, and use that on your own important work. Enjoy!