

# The mines-thesis class \*

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## Abstract

This package provides a class for graduate students at Colorado School of Mines to prepare their theses and dissertations.

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\*This document corresponds to mines-thesis v1.0, dated 2020/01/10.

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# 1 User's guide

## 1.1 Installation

## 1.2 Invocation and options

`\documentclass` The mines-thesis class is invoked in the standard fashion.

```
\documentclass[\langle options \rangle]{mines-thesis}
```

There are several options corresponding to the type of the document and its general appearance. They are described below. Generally speaking, the options have `key=value` forms, for example,

```
\documentclass[screen=true, review=false]{mines-thesis}
```

The default options are `letterpaper,10pt. TODO review? oneseide? onecol-umn,draft,openany`

## 1.3 Preprogrammed Formats

```
\title
\author
\year
\degree
\advisor
\coadvisor
\department
\departmenthead
abstract
```

The environment `abstract` must *precede* the `\makefrontmatter` command. Again, this is different from the standard L<sup>A</sup>T<sub>E</sub>X. Putting `abstract` after `\makefrontmatter` will trigger an error.

```
\begin{abstract}
Here goes the abstract...
\end{abstract}
```

`\makefrontmatter` The front matter of a thesis includes:

1. Title page (Required)
2. Copyright page
3. Submittal page (Required)
4. Abstract (Required)
5. Table of Contents (Required)
6. Lists (Required if included in thesis)
  - (a) List of Figures

- (b) List of Tables
- (c) List of Equations (optional)
- (d) List of Plates
- (e) List of Symbols

7. Acknowledgments

8. Dedication

Invoking

`\makefrontmatter`

will generate all components listed above. It can be commented out until you need the front matter generated.

`\chapter`  
`\section`  
`\subsection`  
`\subsubsection`  
`\paragraph`

## 2 Implementation

### 2.1 Declaration of Options

```
1 \PassOptionsToClass{letterpaper,10pt}{memoir}
2 \DeclareOption*{\PassOptionsToClass{\CurrentOption}{memoir}}
```

### 2.2 Execution of Options

```
3 \ProcessOptions
```

### 2.3 Package Loading

```
4 \LoadClass{memoir}
```

### 2.4 Main Code

#### 2.4.1 Commands to define parameters for the front matter

```
5 \def\year#1{\gdef\@year{#1}}
6 \def\degree#1#2{\gdef\@degreeelv{#1}\@degreename{#2}}
7 \def\advisor#1{\gdef\@advisor{#1}}
8 \def\coadvisor#1{\gdef\@coadvisor{#1}}
9 \def\department#1{\gdef\@department{#1}}
10 \def\departmenthead#1{\gdef\@departmenthead{#1}}
```

The following are the initial values for some macros that provide info.

```
11 \gdef\@author{Your Name}
12 \gdef\@title{Title of the Thesis}
13 \gdef\@year{\year}
14 \gdef\@degreeelv{Doctor of Philosophy}
15 \gdef\@degreename{Geophysical Engineering}
16 \gdef\@advisor{Dr. Main Advisor}
17 \gdef\@coadvisor{Dr. Co Advisor}
18 \gdef\@department{Department of Some Name}
19 \gdef\@departmenthead{Dr. Department Head}
```

#### 2.4.2 Front Matter

## Index

Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in *roman* refer to the code lines where the entry is used.

```
advisor=      \subitem **\advisor+, 7 \subitem **\def+, 5 10 \subitem **\LoadClass+, 4
degree=      \subitem **\degree+, 6
coadvisor=   \subitem **\coadvisor+, 8 \subitem **\PassOptionsToClass+, 1
CurrentOption= \subitem **\CurrentOption+, 2 \subitem **\@departmenthead+, 10 \subitem **\ProcessOptions+, 3
DeclareOption= \subitem **\DeclareOption+, 2 \gdef\year=19 \subitem **\year+, 5, 13
```