

A TEMPLATE USING LATEX FOR DISSERTATIONS
IN MATHEMATICS VERSION 10/28/2005

A DISSERTATION IN
Mathematics
and
“Co-Discipline”

Presented to the Faculty of the University
of Missouri-Kansas City in partial fulfillment of
the requirements for the degree

DOCTOR OF PHILOSOPHY

by
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B.S., University of Missouri-Kansas City, 1964
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Kansas City, Missouri
2005

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A TEMPLATE USING LATEX FOR DISSERTATIONS
IN MATHEMATICS VERSION 10/28/2005

Larry Quin Eifler, Candidate for the Doctor of Philosophy Degree
University of Missouri-Kansas City, 2005

ABSTRACT

The user of this template must understand that it is the responsibility of the student to meet the formatting requirements set down in the “University of Missouri-Kansas City Guide to Formatting Theses and Dissertations.” Following this template does not guarantee acceptance by the School of Graduate Studies.

When preparing the abstract, follow carefully the directions in the “Guide to Formatting Graduate Theses and Dissertations.” In addition, use the form illustrated in this sample. The type of information shown at the top of the page and at the end of the abstract is included in all abstracts. The spacing and capitalization must be observed.

Center horizontally the information at the top: (1) the title; (2) the author’s name and the degree to be received; (3) University of Missouri-Kansas City, year; and (4) ABSTRACT. Begin typing the title on the 12th line. The title, in all capitals, is set in two lines (or more) if it is longer than 48 spaces; use inverted pyramid style and double-space. Triple-space between the title and the author’s name. Initial letters only are capitalized in typing the author’s name and the degree. Double-space

before adding the “University of Missouri-Kansas City.” Triple-space before and after “ABSTRACT.”

Triple-space following the text of the abstract. Then add the sentence exactly as show below, except, of course, change, the 000 to the approximate number of words in the abstract. The final information is the name and signature of the professor in charge of the thesis (dissertation). Type the name of the professor below the signature line.

This abstract of 000 words is approved as to form and content.

Your Major Professor, Ph.D.
Professor
Department of Mathematics and Statistics

The undersigned, appointed by the Dean of the School of Graduate Studies, have examined a dissertation titled “Your Exact Thesis Title Goes Here,” presented by Your Full Name, candidate for the Doctor of Philosophy degree, and hereby certify that in their opinion it is worthy of acceptance.

First Professor, Ph.D.
Department of Mathematics and Statistics

Date

Second Professor, Ph.D.
Department of Mathematics and Statistics

Date

Third Professor, Ph.D.
Department of Mathematics and Statistics

Date

Fourth Professor, Ph.D.
Another Department or Unit

Date

Fifth Professor, Ph.D.
Another Department or Unit

Date

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ACKNOWLEDGMENTS

This thesis template was typeset using LATEX. The 12-point book style was used as a basis for the style file used to produce this template. I would like to thank Elizabeth Smock for her help in checking the format of an earlier version. If you are using the style file provided with this template and you have any questions or problems, then feel free to contact Larry Eifler in the Department of Mathematics and Statistics.

DEDICATION

To my parents with love and appreciation

Though nothing can bring back the hour
Of splendour in the grass,
 of glory in the flower;
We will grieve not, rather find
Strength in what remains behind;

WILLIAM WORDSWORTH

CHAPTER 1

INTRODUCTION

This chapter includes the basics of your work and can be divided into different sections

Basic section

You can describe other concepts here

Elaborated section

If a more complicated section appears, then divided it. You can use subsections.

Sub-Topic 1

Sub-Topic 2

CHAPTER 2

BACKGROUND

Include the literature review here

CHAPTER 3

METHODS

Include your proposal.

APPENDIX A
A USER'S GUIDE FOR THE TEMPLATE

For the most part, the user should be able to modify the sources files which come with this template so as to obtain a properly formatted dissertation. Figure 2 gives a listing of the main control file `Main-LQE.tex`.

```

\documentclass{kcmath2e}

\usepackage{graphics}
\input{Defns-LQE}           % Required
\input{Format-LQE}          % Required

\begin{document}

\include{TitlePage-LQE}
\include{Abstract-LQE}
\include{Acceptance-LQE}
\include{Contents-LQE}
\include{Acknow-LQE}
\include{Dedication-LQE}    % optional
\include{EndFront-LQE}
\include{Chap1-LQE}
\include{Chap2-LQE}
\include{Chap3-LQE}
\include{Appendix-A-LQE}
\include{Appendix-B-LQE}
\include{Biblio-LQE}
\include{Vita-LQE}

\end{document}

```

Figure 1. Main control file for template

A brief description of each of the source files as well as the style file used to produce this template is presented below.

1. **Main-LQE.tex** - This file selects the document style and inputs a sequence of files which generate the template. It contains no text of its own.
2. **Kcmath2e.cls** - The 12-point book style was used as a basis for this style file. The `\chapter` and `\section` macros are defined so as to satisfy the format for dissertations at UMKC. Several other details concerned with the format requirements specified in the “Guide” are handled by this style file.
3. **Format-LQE.tex** - The margins, spacing and various parameters are defined in this file. One may select the depth of the listing for the table of contents. One may select if a list of figures or a list of tables is to be printed.
4. **Defns-LQE.tex** - The theorem-like environments are defined here. Also, macros for starting and ending a proof are defined. The blackboard font is defined in this part.
5. **TitlePage-LQE.tex** - This generates the title page. The optional copyright page is also generated.
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11. **EndFront.tex** - This file generates headings within the table of contents, list of figures and list of tables. Also, the numbering of the pages is reset to 1 and set to arabic style.
12. **Chap1-LQE.tex** - This contains Chapter 1 of the template.
13. **Chap2-LQE.tex** - This contains Chapter 2 of the template. The `\input` command can be used to input sections or portions of a chapter. Be careful to distinguish between the commands `\input` and `\include`.
14. **Spring-Mass.tex** - This contains the picture of a spring mass system.
15. **Commut-Diagram.tex** - This contains two commutative diagrams and a short discussion of how they were created.
16. **Appendix-A-LQE.tex** - This contains Appendix A. You are reading it now!
17. **Appendix-B-LQE.tex** - This contains Appendix B.
18. **Biblio-LQE.tex** - This file contains the bibliography for the template.
19. **SampleBiblio.tex** - This document illustrates the AMS-Plain style for a bibliography.
20. **Vita-LQE.tex** - This file contains the vita page.
21. **NRheeHex2b.eps** - This is an EPS file.
22. **YinYang.eps** - This is an EPS file.

APPENDIX A

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2. A. Diller, *LATEX line by line*, Wiley, New York, 1993.
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VITA

Larry Quin Eifler was born on March 13, 1943, in Independence, Kansas. In 1960 he graduated from Paseo High School in Kansas City, Missouri. He received a B.S. degree from the University of Missouri-Kansas City in 1964.