

FORMAT FOR THESES

The Institute for Graduate Studies
in
Science and Engineering

Piri Reis University

2014

FOREWORD

Master's theses or Ph.D. dissertations submitted to Piri Reis University graduate school of science and engineering must be written in accordance with the format stated in this guideline.

The following rules and statements are presented more as answers to questions frequently asked rather than an alphabetically indexed coverage of every contingency. If, for good reason, a student should seek exception to the practices here, he/she should consult his/her thesis supervisor and the institute.

An M.S thesis or Ph.D dissertation should be submitted to the candidate's thesis supervisor for review of form and content at least two weeks before the date set for the meeting of the Executive Board of the Institute for selection of the Defense Jury. After the approval by the thesis supervisor, copies of the thesis should be submitted to the members of the Defense Jury at least two weeks before the thesis defense.

The thesis defense is scheduled by the Defense Jury and the candidate's supervisor in accordance with the rules and regulations of the University. When the thesis is approved by the Defense Jury, it should be typeset and bound. The approval page of the final copy must be signed by all members of the Defense Jury. Only one bound copy of the thesis should be submitted to the Institute. The Institute would check the final copies of theses to assure correctness of format and consistency in content and in bibliographic style. The Institute would deliver two of the bound copies to the Piri Reis University Library.

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1. ORDER OF PRESENTATION FOR CHAPTERS

The presentation order of the thesis chapters must be as listed below;

1. Outer cover
2. Inner cover
3. Approval page
4. Dedication page (if existent)
5. Foreword
6. Table of contents
7. Abbreviations
8. List of tables
9. List of figures
10. List of symbols (Nomenclature)
11. Summary (English)
12. Summary (Turkish)
13. Introduction
14. Other chapters (Materials and Methods, Results and Discussion, etc...)
15. Conclusions and recommendations for future research
16. References
17. Appendices
18. Curriculum vitae

2. GENERAL FORMAT RULES

2.1. Page Format

2.1.1 Writing format

Paperback (white/carton) cover and hard (indigo blue for both M.Sc. and Ph.D.) cloth must be duplex-printed. The first page of every chapter must be on an odd page.

2.1.2 Margins

Margins of pages should conform to the following specifications:

- Left margin - 3.5 cm from the edge of the paper
- Right margin - 2 cm from the edge of the paper
- Top margin - 3.5 cm from the edge of the paper
- Bottom margin - 2 cm from the edge of the paper

The above margins should be observed on charts, graphs, tables and drawings as well. Landscape-oriented pages must be organized such that they are readable when rotated right. Folded papers cannot be accepted unless there is absolutely no other way for the material to be presented.

2.2. Fonts

Throughout a thesis, Times or Times New Roman font type and 12 pt size must be used including formulas, equations, Table headings and Figure captions. At least 8 points should be used in Figures, Tables and super or subscripts. Footnotes, long biographical quotes and extensive quotations should be 10 points.

The main text body must be written with regular (non-italics and non-bold) characters. Bold fonts must be used for titles. *Italic* characters must be used only when necessary (Nouns in Latin, abbreviations, theories/definitions, etc.).

2.3. Line Spacing and Paragraph Format

The term “line spacing” refers to the distance between the lower baselines of two consecutive lines. Point is a font size unit which corresponds to 1/72” (0.376 mm).

The main text body must be written with 1.5 line spacing. Paragraphs must be justified aligned. When a paragraph ends, the next one starts after pressing RETURN twice (2 x CR) to get two 1.5 spacings. Paragraphs must be uniformly indented one centimeter.

Abbreviations, Table of Contents, Lists of Tables and Figures, Foreword, Summaries, References, Appendices, CV, names and captions for tables and figures, and footnotes in main text body must be written with 1 line spacing.

Titles must not be the last line of a page; a title must be placed on the following page unless two more lines could be written after it. The first line of a paragraph cannot be the last line of a page, as the last line of a paragraph cannot be the first line of a page (termed as widows and orphans).

Series of paragraph items which are to be listed without headings under any of the regular headings may, for clarity, be designated by special bullets such as •, or enumerated by (i), (ii), (iii), etc.

2.4. Page Numbering

All of the pages within the thesis, except for outer and inner cover pages and their backsides, must be numbered.

Inner cover and its backside must be numbered as (i) and (ii), but the page numbers must not be shown. All pages starting from the approval page to the main text body must be numbered uninterruptedly with lowercase Roman numbers. The main text body (Introduction and the other chapters, Results and/or Discussion, References, Appendices and CV) must be numbered with Arabic (1, 2, 3, etc.) numbers. Pages bearing landscape Figures do not bear a number, however page numbers continue to increment.

Page numbers must be placed at the bottom center and 1.5 cm above the bottom of the page, in the direction of reading.

The font style used throughout the thesis must be used for page numbers, and the font size must be 11 pt.

2.5. Headings

Headings should be in the same font as the rest of the text and should feature neither quotation nor punctuation marks other than the period following the heading number. There may be at most four levels of headings which are main headings, second headings, first subheadings and second subheadings. Additionally, special captions to designate theorems, corollaries, lemmas, definitions, remarks and propositions may be deployed. Headings should be followed by at least one line of text (i.e. headings should not directly be followed by Tables or Figures).

2.5.1. Main Headings

Main headings, numbered such as 1., 2., etc., should obey the following rules:

- They should begin a new page and be centered. Omit period at the end of the heading. Main headings should be typed in bold face and should be in capital letters and in 14 points.

- Main headings should reflect content of the text that follows. Main headings are not to be called as chapters.

- The number of the headings should be followed by a period and two spaces.

- They should precede the following text material or second heading by 3 x 1.5 lines (3xCR)

2.5.2. Second Headings

Second headings, numbered such as 2.1., 2.2., etc., should obey the following rules:

- They should be centered and be typed in 12 points, bold face and title case letters (i.e., the first letter of each word except conjunctions, prepositions and articles must be a capitalized.). Omit period at the end of heading.

- The number designation of the second heading should be followed with a period and two spaces.

- Second headings should be (2xCR) below preceding text and (2xCR) above of succeeding text, but need not begin a new page.

2.5.3. First Subheadings

First subheadings, numbered such as 2.1.1., 2.1.2., etc., should obey the following rules:

- They should be typed on separate lines beginning at the left margin of the text, but need not begin a new page.

- They should be typed in bold face in 12 points and with title case letters.

- The number designation of the heading should be followed by a period and two spaces. Omit period at the end of the heading.

- First subheadings should be separated from the preceding and succeeding text by (2 x CR).

2.5.4. Second Subheadings

Second subheadings, numbered such as 2.1.1.1., 2.1.1.2., etc., should obey the following rules; however, second subheading should be avoided if possible.

- They should be typed on the same line as the text they introduce, beginning at the left margin of the text.
- They should be typed in 12 point, in title case letters.
- They should be followed by a period at the end of the heading and must be underlined.
- The number designation should be followed by a period and two spaces.
- Second subheadings should be separated from the preceding text by (2 x CR).

2.6. Tables and Figures

All floating items such as graphs, charts, photographs, illustrations and lists should be considered and designated as a Figure or Table, whichever is appropriate.

Tables and figures must be placed after they are first cited in the main text body, but must be as close as possible, in accordance with the rules in this guideline. All tables and figures must be cited before they are used in the main text body.

All tables and figures must be horizontally centered on the page.

The numbering of the tables and the figures must be such that the first number is the number of the main heading the table/figure is placed under (for appendices, the letter of the appendix), and the second number is the number of order (i.e. **Table 1.2**, **Figure 3.5**, **Table A.1**, **Figure B.5**). The words “Table” and “Figure” and numbers must be bold. Sub-figures should be enumerated by adding the corresponding lowercase letter to the Figure designation such as Figure 3.8a. The information about the sub-figures should be included in the caption of the Figure.

Table captions are located above the Tables whereas Figure captions are placed below the Figures. All captions should end with a period. When a Figure is divided into two or more pages, each Figure piece should include the Figure's legend if it has one. Also, each Table or Figure piece should have its own caption. With the exception of the first piece, it should be stated in the caption of the Figure or Table piece that it is the continuation of the previous one by putting cont. at the end of the caption.

All Tables should be framed. Fonts of the texts in the Tables should be consistent with the rest of the text. Table headers may be boldface but colored texts are not allowed as Table headers. Figures may be colored where necessary. Figures should not have an embedded title in the Figure since the caption should include the necessary information. All axes should have titles. Tables, Figures and their captions should be centered as shown in the examples on through the text. The captions should be as normal text, i.e, only the first letter should be capitalized. The captions should be at a distance of (1 x CR) from the Table or Figure and should continue for 3 lines at most. If a Table or Figure needs further explanation, it should be provided in the associated text block. Explanation may come before or after the Figure as long as it refers to the right Figure. If there are too many large or consecutively related Figures or Tables, they should be put to the appendix and designated by a capital letter indicating the appendix number and a number starting from 1 and increasing sequentially throughout the appendix section across all Tables and Figures , such as A1, A2,

2.7. Bibliographical Material

Theses should follow the form used in scholarly publications of the student's field of research. Rules of form vary from one field to another, and it is important that the student learn the editorial usages of his/her own field. In this regard, the usage of bibliographical management programs such as EndNote , Zotero or Mendeley is recommended. It is generally important that he/she follow such usages consistently throughout his/her thesis. Only one of the two following citation methods must be used throughout the thesis:

- The numerical reference of bibliographical material should be indicated in the text by an Arabic numeral in square brackets placed in the text immediately following the name, word, phrase, or sentence which the reference concerns (in some cases, this may be the author's name). The number in square brackets such as “[8]1, should indicate the order of first appearance of the reference in the text. The listing of references in the bibliography should be in the order in which they are used in the text and shall bear the same number as was used in the reference in the text. When more than 3 consecutive bibliographical references are to be cited, they should be denoted by ranging the first and the last such as [2-6].
- Citation of the relevant reference could also be done in the (surname of the first author, year) type. If an author has more than one reference in a calendar year, letters a, b or c should follow the year, e.g., “(Erman, 1990a,b)”. If there are two authors for the reference, both surnames should be included followed by the year, e.g., “(Erman and Unal, 1998)”. If there are more than two authors, only the surname of the first author should be included followed by et al., e.g. “(Erman et al., 1997)”. The listing of references in the bibliography, in this case, should be in alphabetical order by the surname of the first author.

2.8. Specially Designated Expressions

Specially designated expressions usually mean equations, formula, etc. and they need to obey the following rules:

- They should be centered on the page and separated from the preceding text and the succeeding text by (2xCR).
- The expressions should be identified by an Arabic number in parentheses like “(2.1)”, “(2.2)”, “(2.3)”, etc., which should be placed opposite the expression and in line with the right margin of the text. They should be numbered within each chapter in the order of their appearance.
- Mathematical formula and expressions must be typeset according to a consistent math-style throughout the whole thesis. The standard style for mathematical expressions in scientific publications makes use of italic typeface for variables in Latin characters and on-italic typeface for mathematical signs (+, , parentheses,

etc.). Bold characters are usually reserved for vectors and matrices. The style used for in-text formula should be the same as that of displayed formula.

- Equations in appendices must be numbered by the number of the appendix they are given in (i.e. Appendix A “(A.1.1)”, “(A.1.2.)”)

3. ARRANGEMENT

3.1. Title Page

When preparing the Title Page, the candidate should list his/her prior degree(s) showing the major, the degree granting institutions and dates in chronological order. This page should not bear a page number. Example of Title Page for a Ph. D. thesis is presented in Appendix A. These examples should be carefully followed as to form and spacing. At the bottom of the example page, at the place where the year is shown, the semester date (year only, viz. 2014) in which the requirements for the degree are completed should be written (Appendix A).

3.2. Approval Page

All copies of the submitted thesis should include original signatures of the Defense Jury on the approval page. This page should be prepared in accordance with the example in Appendix A and should follow the Title Page. The names of the members of the Defense Jury should be listed one below the other in alphabetical order, except the Thesis Supervisor's, whose name should be at the top of the list. Titles of the Jury members should be presented in the North American style, such as Prof., Assoc. Prof., Assist. Prof. preceding a Jury member's name. If desired and appropriate, the term 'Ph.D.' may follow a Jury member name (separated by a comma from the name). Space for the signature of each Jury member should be left beside each name. The date at the bottom of the page is the date at which the thesis is approved by the Defense Jury.

3.3. Dedication

Occasionally, authors would like to dedicate their thesis to their family members, friends or some scientists in their area of research. The dedication page should come right after the Approval Page. Dedications should be in English and placed at the lower right corner of the page.

3.4. Acknowledgements

The candidate may desire to include a page with a brief note of an acknowledgement of help received from particular people. All organizations proving financial support must also be acknowledged and grant numbers should be included. You may see an example in Appendix A.

3.5. Abstract

The Abstract should give the information that will enable a scholar to tell whether he/she wishes to read the complete work. Therefore, the abstract should cover the following points: Statement of the problem, procedure or method, results, conclusions. Two abstracts, one in English and the other in Turkish, should be included. The abstract should contain no headings, tabular material, chemical formulae, or footnotes. Abstracts should not contain references, but author citing is allowed. Abstract should be at most one page long. The abstract page should contain the title of the thesis. The Turkish Abstract (“Özet”) must follow the English Abstract in the same format.

3.6. Table of Contents, List of Figures, List of Tables, List of Symbols and List of Accronyms/Abbreviations

These are expected to have a “Table of Contents” for the convenience of the reader. “Table of Contents” entry should not be in the Table of Contents. If figures and

tables are scattered throughout the text, a separate “List of Figures” (and/or “List of Tables”) must be included after the Table of Contents. These lists should include page numbers. Similarly, a “List of Symbols” (or “List of Symbols/Abbreviations”, as appropriate) should be included. “List of Symbols” can contain symbols listed alphabetically as separate groups ordered as Latin symbols, Greek symbols, and other symbols. “List of Accronyms/Abbreviations” contains abbreviations listed alphabetically.

3.7. The Main Body of the Thesis

The main body of the thesis should follow at this point. The main body should be composed of a series of chapters starting with an Introduction chapter and ending with a Conclusion chapter. The remaining chapters may include one or more of the following main topics: Literature Survey, Problem Statement, Materials and Methods, Results and Discussion or other relevant topics.

- The whole text should be left and right justified.
- Periods, commas, semicolons and colons go outside the quotation marks.
- Integers from one to nine, inclusive, should be spelled out except when they represent a chapter or a section; for number 10 and above, use numerals. Numbers should be spelled out when they begin a sentence.
- Do not spell out per cent; use %.

3.8. Appendices

A last section may contain supporting data for the text in the form of one or more appendices. Examples of appendix material include data sheets, questionnaire samples, flowcharts, illustrations, maps, software listings, charts, etc. If the appended data need to include oversize illustrations or maps, several alternative methods of inclusions are available.

If a Section, Table, Figure, Equation etc., is to be included in an Appendix, the numbering should follow the same rules used within the thesis. In this case, however, they should begin with the letter of the respective appendix such as “Table A.1”, “Equation B.4” etc. Each appendix should have a descriptive title just like chapter headings.

The developed computer program should be given in a separate diskette or CD.

4. PREPARATION OF THE FINAL COPIES

4.1. Paper Type and Printing

Theses must be printed/reproduced on A4 (21x29.7 cm) size, 75 or 80 g/m² white, first quality paper. No distortion must occur during printing/reproduction, and the copies must be legible.

Only laser or Ink Jet printer output are acceptable. Printer settings should comply with A4-size paper and should be so that the page is not resized in printing.

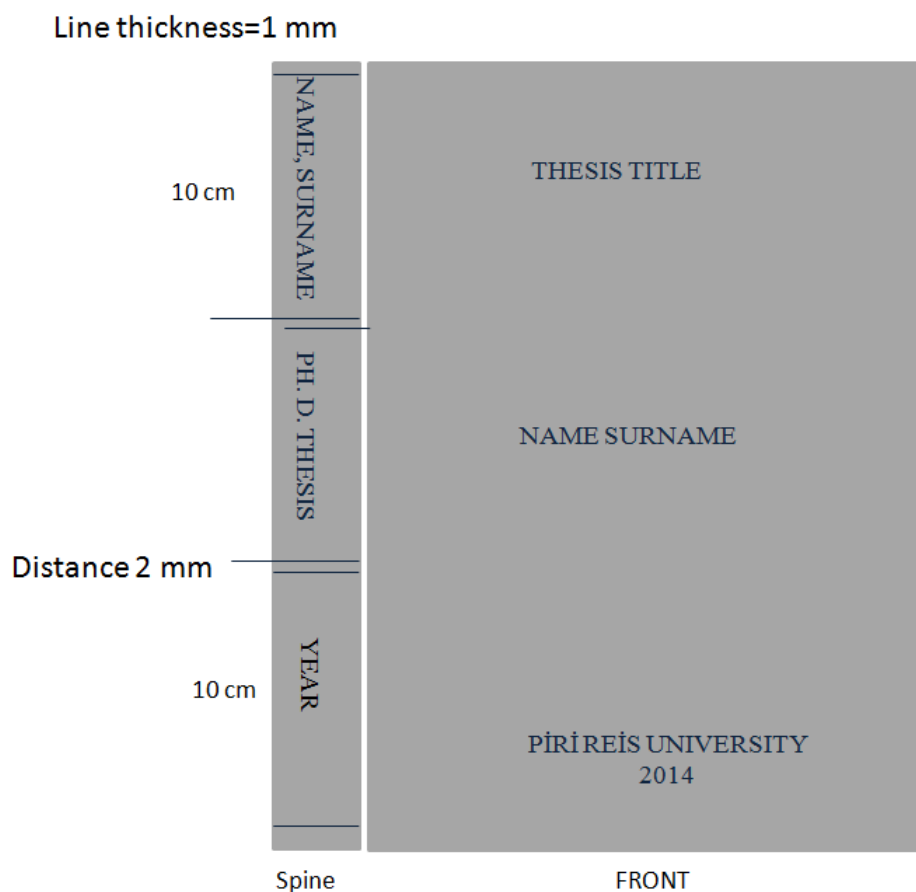
4.2. Binding

The thesis should be bound in blue cover. The final bound size of the thesis should conform to A4 size. The name and surname of the candidate, the type of degree obtained and the year should be printed in the above order on the spine of the cover in dark blue. When the thesis is placed front cover up, the spine should read from left to right.

APPENDIX A: SAMPLE PAGES

The following pages present examples of some thesis pages typeset in the format described in the preceding chapters. They include the pages to be found in the preamble of a thesis (such as title and approval pages, table of contents, etc.), as well as examples of list of references and the abstract to be submitted separately to the Institute. Also the format of the cover for the bound copy is shown. Furthermore, this booklet (except its title page) is typeset in the format required for the theses.

The **cover** should be blue and the texture should have small grains. The writings must be in golden color. Binding should use stitches; stapled binding is not acceptable. To avoid rejections use the services of a high quality binding office.



THESIS TITLE

by

Name, Surname

B. S., Field, University, Year

M. S., Field, University, Year

Submitted to the Institute for Graduate Studies in
Science and Engineering in partial fulfillment of
the requirements for the degree of
Doctor of Philosophy (Master of Science)

Graduate Program in Maritime Transportation and Management Engineering

Piri Reis University

2014

THESIS TITLE

APPROVED BY

Prof. Name Surname

(Thesis Supervisor)

Assoc. Prof. Name Surname

Assist. Prof. Name Surname

Name Surname, Ph.D.

DATE OF APPROVAL: DD.MM.YYYY

ACKNOWLEDGMENTS

I would like to express my sincere gratitude for TÜBİTAK for their financial support.

I wish to thank to my thesis supervisor Prof. for her support and encouragement.

.....

I am grateful to the members of my thesis committee, Prof. and Prof. for their valuable comments and contribution.....

.....

.....

I would like to thank to my family.....for.....

ABSTRACT

THESIS TITLE

One page abstract will come here.

ÖZET

TEZ BAŐLIĐI

Bir sayfa uzunluĐunda gelecektir.

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LIST OF SYMBOLS/ABBREVIATIONS

E_0	Exact energy
E_{ac}	Activation energy
e_{aq}^-	Hydrated electrons
$E_{ncl}[\rho]$	Non-classical contribution to the electron-electron interaction containing all the effects of self-interaction correction, exchange and Coulomb correlation

1. INTRODUCTION

1.1 Azo Dyes: The Horns of a Dilemma

Due to an increasing environmental pollution and, as a consequence, to the establishment of standards for rejecting wastewaters, purification of industrial aqueous effluents is getting more and more important. In the textile industry, process wastewater is composed of pollutants produced from many textile-processing operations like sizing, weaving, desizing, scouring, bleaching, mercerizing, carbonizing and dyeing [1-4]. Among these, scouring and dyeing have the highest pollution loads of textile wet-operations [1]. Moreover, colored wastewater is classified as hard-to-treat and specific types of waste [2]. In an attempt to predict the hazardous nature of dyes among 1 460 dyes examined only 40 per cent were found to have a known molecular structure and only 32 per cent of these known structures were predicted to be safe [3]. This particular study emphasizes the importance of adequate and efficient dye wastewater treatment.

Azo dyes constitute a very large and important class of colorants. They account for 60-70 per cent of the dyes used in traditional textile applications and they occupy a similarly prominent position in the range of classical organic pigments [5]. Azo dyes have the general chromophore structure of the sp^2 carbon atoms connected through an azo bridge, (-N=N-). Usually, but not exclusively, this bridge links two aromatic ring systems. The chemical and physical characteristics of the dye, like solubility or color, show variance due to the presence of different groups as substituents on the rings. The most important group consists of aminobenzene derivatives of general formula (1.1) [6].

Examples of equations and formula:

The electron density is defined as:

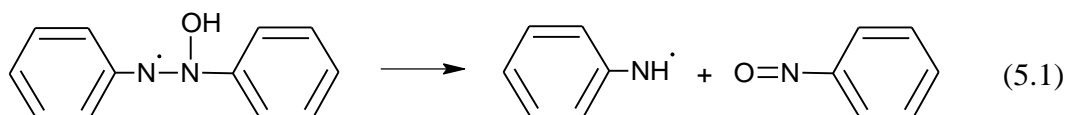
$$\rho(x) = N \int \dots \int |\Psi(x_1, x_2, \dots, x_n)|^2 dx_1 dx_2 \dots dx_n \quad (3.2)$$

where x represents both spin and spatial coordinates of electrons.

The Lagrange multiplier in (3.12) can be written as

$$\mu = \left(\frac{\delta E}{\delta \rho(\vec{r})} \right)_{v(\vec{r})} \quad (3.28)$$

This radical is mentioned in Patai's book on azo compounds [121], as undergoing the following cleavage reaction:



Sample Table:

Table 5.1. Condensed Fukui Functions for the Radical Addition to Azobenzene

Atomic center	Mulliken	NPA
C (1)	0.00755	-0.02716
N (1)	0.12405	0.20684
C (1 in solution)	0.01893	-0.01515
N (1 in solution)	0.15912	0.24062
C ₁ (1W)	0.01039	0.02498
N ₂ (1W)	0.06528	0.09824
N ₃ (1W)	0.06777	0.09680
C ₄ (1W)	0.01760	0.02454

Sample figure:

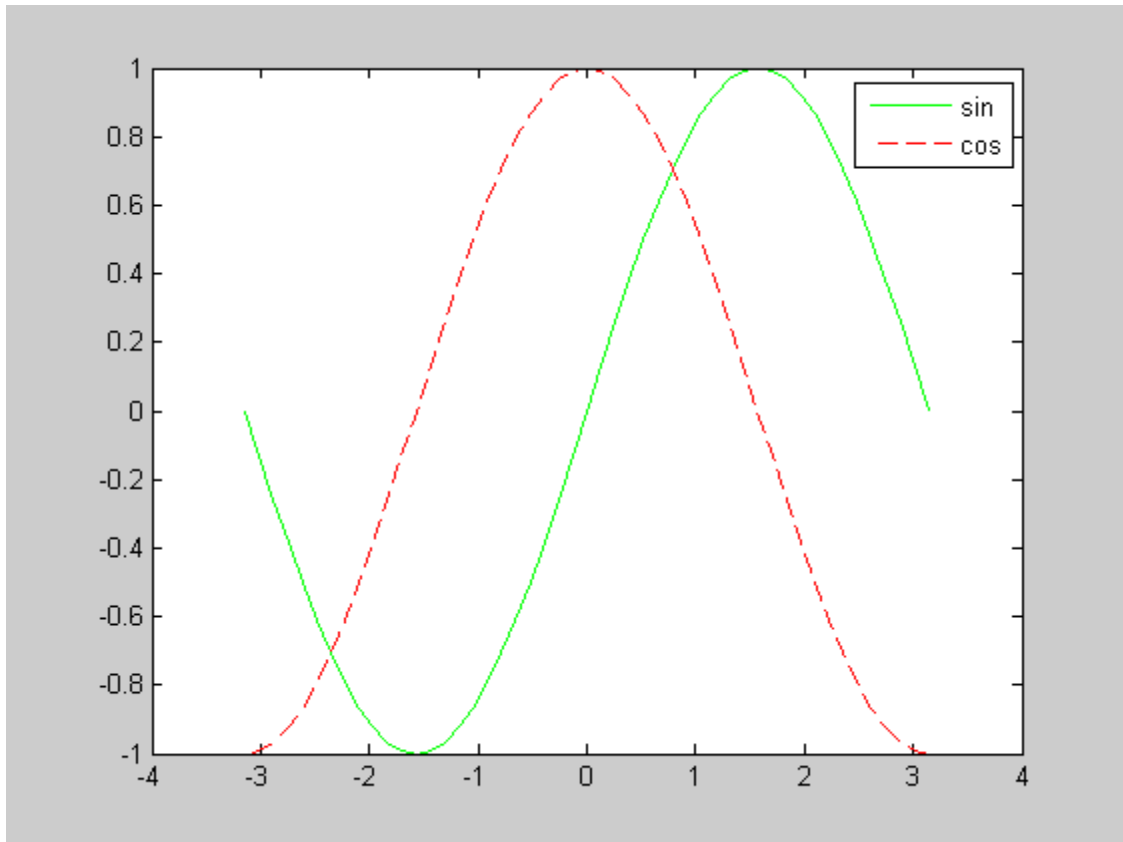


Figure 2.1. Sin and Cosine.

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CURRICULUM VITAE

Name, surname, information and dates on B.Sc. and M.Sc. education must be written.

Picture, place and date of birth, address, e-mail address, professional experience, rewards, publications and patents are optional to add in CV.

Following the CV, publications/presentations on the thesis must be listed under the title **PUBLICATIONS/PRESENTATIONS ON THE THESIS**. The listing must be done according to the citing rules specified previously. Publications and presentations listed here must not be repeated in the general publication list of the author.

The organization of the CV page is given in the thesis template.