# GRADUATE THESIS/DISSERTATION FORMAT TEMPLATE NATIONAL UNIVERSITY OF SCIENCES AND TECHNOLOGY ISLAMABAD

VERSION:MS1.0; DATED: Jan 2024



Template of Graduate Thesis/Dissertation is an "essential kit" to format thesis in Microsoft Word. This template has Word's auto-generate capability and facilitate incorporation of automatic List of Tables, List of Figures and Table of Contents, and numbering of equations.

Thesis template and guidelines assists to provide correct formatting of following: correct page numbering, margins, the front pages format, chapter headings, section headings, and subheading styles set up to level 3.

Furthermore, there are help boxes provided as Blue Text Boxes to explain the formatting. These boxes need to be deleted before the printing of thesis. These boxes can be easily deleted by viewing under View menu and Print Layout to see or delete these Blue text.

It is advised that this template should be used as a starting point to format the thesis, with further assistance can be obtained from Supervisor, Exam cell and Students for proper formatting.

#### [DELETE THIS PAGE BEFORE BEGINNING]

## Thesis Title Goes Here Center [Doping Graphene Sheets]

[Time New Roman, Bold, Font Size 16]



## By

Student Name (Registration No: 00000123456)

Department of Materials Engineering

## School of Chemical and Materials Engineering

National University of Sciences and Technology (NUST)

Islamabad, Pakistan

(2023)

## Thesis Title Goes Here Center [Time New Roman, Bold, Font Size 16, Center]



By

Student Name

(Registration No: 00000123456)

A thesis submitted to the National University of Sciences and Technology, Islamabad,

in partial fulfillment of the requirements for the degree of

Doctor of Philosophy in

Materials Engineering

Supervisor: Dr.

Co Supervisor (if any): Dr.

School of Chemical and Materials Engineering

National University of Sciences and Technology (NUST)

Islamabad, Pakistan

(2023)

#### THESIS ACCEPTANCE CERTIFICATE

Signature:
Name of Supervisor:
Date:
Signature (HoD):
Date:
Signature (Dean/Principal):
Date:

### National University of Sciences and Technology MS THESIS WORK

We here by recommend that the thesis prepared under our supervision by:  $\rm Mr/Ms.....$  Titled:..... be accepted in partial fulfilled the requirements for the award of MS degree.

#### **Examination Committee Members**

	Supervisor's Name	Signa	ture:
4.	Name	.Signature:	
3.	Name	.Signature:	
2.	Name	.Signature:	
1.	Name	.Signature:	

Head of Department's Signature......Date.....

#### COUNTERSIGNED

Principal/Dean.....Date.....

#### CERTIFICATE OF APPROVAL

This is to certify that the research work presented	l in this thesis, entitled ""
was conducted by Mr./Ms	der the supervision of
No part of this thesis has been submitted anywhe	re else for any other degree. This thesis
is submitted to the (Name of Dep	partment of the University)
in partial fulfillment of the requirements for the	degree of Master of Science in Field of
(Subject Name) Departme	nt of National University
of Sciences and Technology, Islamabad.	
Student Name:	- Signature:
Examination Committee:	
a) External Examiner 1: Name	Signature:
(Designation and Office Address)	
b) External Examiner 2: Name	Signature:
(Designation and Office Address)	
<u>_</u> _	
Name of Supervisor:	— Signature:———
Name of Dean/HOD:	——Signature:————

#### **AUTHOR'S DECLARATION**

I.....hereby state that my MS thesis titled "......" is my own work and has not been submitted previously by me for taking any degree from National University of Sciences and Technology, Islamabad or anywhere else in the country/ world. At any time if my statement is found to be incorrect even after I graduate, the university

has the right to withdraw my MS degree.

Student Signature:\_\_\_\_\_ Name:\_\_\_\_\_

Date: \_\_\_\_\_

#### PLAGIARISM UNDERTAKING

I solemnly declare that research work presented in the thesis titled "....." is solely my research work with no significant contribution from any other person. Small contribution/ help wherever taken has been duly acknowledged and that complete thesis has been written by me.

I understand the zero tolerance policy of the HEC and National University of Sciences and Technology (NUST), Islamabad towards plagiarism. Therefore, I as an author of the above titled thesis declare that no portion of my thesis has been plagiarized and any material used as reference is properly referred/cited.

I undertake that if I am found guilty of any formal plagiarism in the above titled thesis even after award of MS degree, the University reserves the rights to withdraw/revoke my MS degree and that HEC and NUST, Islamabad has the right to publish my name on the HEC/University website on which names of students are placed who submitted plagiarized thesis.

Student Signature:

Name:

Date: \_\_\_\_\_

#### DEDICATION

Center [Time New Roman, Bold, Font Size 1...

Start typing the dedication here.

This is the (optional) Dedication page. If your thesis contains a Dedication, it would replace the text above. The text should be centered both vertically and horizontally on the page and should be single-spaced. The Dedication page DOES NOT have a heading or a printed page number, but the page DOES count in the page numbering. Since the Dedication bears no heading or page number, it is not listed in the Table of Contents. Note following point

- Count but do not number page.
- For Dedication, text should be brief and centered on page.
- The Dedication does not appear in the table of contents.

DELETE THE ABOVE TEXT BUT BE SURE TO RETAIN THE SPACING. DELETE THIS INSTRUCTIONAL TEXT BOX BEFORE PRINT-ING. DELETE THIS WHOLE PAGE IF YOU ARE NOT INCLUDING A DEDICATION IN YOUR THESIS.

#### ACKNOWLEDGEMENTS

Start typing the acknowledgment here.

Most theses and dissertations include a brief statement of appreciation for, or recognition of, any special assistance.

Acknowledgements must be written in complete sentences and in the third person. i.e. not "Thanks, Mom and Dad!" but "I would like to especially thank my mother and father, without whose guidance and support I would not be here."

The Acknowledgements page should be double-spaced and is the first page to bear a printed page number and be listed in the Table of Contents.

About the page number on this page:

• Count and number page(s) with lower case roman numerals.

Most often, the Acknowledgements will be page ix, but if you have no Dedication page or you have additional front matter, such as an Epilogue, you may have to change this page number.

To do so, double-click above the page number to edit the Footer area. Right-click the page number and click "Format page numbers..." and change the page number in the "Start at" box from iv to viii. Page numbering should continue correctly from there.

# DELETE THIS INSTRUCTIONAL TEXT BOX BEFORE PRINT-ING.

Note: All major headings should start at the same position at the top of each page. (e.g., Title, ACKNOWLEDGMENTS, TABLE OF CONTENTS, LIST OF TABLES, LIST OF FIGURES, ... REFERENCES, etc.)

• Leave three blank lines. Begin typing the text. The text must be double-spaced.

DELETE THIS INSTRUCTIONAL TEXT BOX BEFORE PRINT-ING.

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## List of Tables

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By utilizing Word's "Insert Caption..." feature, you can easily build your List of Tables (this page) and List of Figures (following page).

To insert list of table and figures, click at reference tab > insert Table and figures To update all fields prior to submitting your document, simply select the table, right click the text, and select "Update Field."

DELETE THIS INSTRUCTIONS TEXT BOX BEFORE PRINTING.

# List of Figures

1.1	This is a figure. The "caption" uses the "Caption" theme from the						
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	selecting "Insert Caption"	2					
1.2	Example of a Figure	3					
• The list of figures uses the captions as they appear below the figures in the							

text. If captions are very long, they may be truncated in the list of figures.

DELETE THIS INSTRUCTIONS TEXT BOX BEFORE PRINT-ING.

# LIST OF SYMBOLS, ABBREVIATIONS AND ACRONYMS

A the letter A B the letter B CGS Center for Graduate Studies

Common symbols, such as scientific fonts, may be used in the body of the thesis, but not in the title of the work. Thesis or dissertation titles containing formulas, symbols, superscripts, Greek letters, or other non-alphabetical symbols should use word substitutes for those symbols (e.g., "Gamma Ferric Oxide Dispersion...,""... Alpha- and Beta- Globulin...,""... The Neodymium-Barium-Copper Oxide System....")

• Other names of lists can be acceptable to the department or Institution may be allowed upon approval of GEC.

DELETE THIS INSTRUCTIONS TEXT BOX BEFORE PRINTING.

## Abstract

#### Center [Time New Roman, Bold, Font Size 1...

Start typing the abstract here.

Keywords: Summary; format, font, abstract, keywords. (Between 5-10 words only)

The Abstract may have the same content as the doctoral Abstract but the format is different. The Abstract is an external document you prepare for NUST. The Abstract is part of the body of your work and so the Abstract must have the same spacing as the body of the thesis (generally double-spaced). The abstract should be a single paragraph with 250-300 words.

There should be key words between 5 to 10 to be included to highlight the importance of research work. Key words can be in order of significance or alphabetically.

There should be overall Abstract of the complete research dissertation.

An optional overall graphical abstract of research can be provided.

DELETE THE ABOVE TEXT BUT BE SURE TO RETAIN THE SPACING. DELETE THIS INSTRUCTIONAL TEXT BOX WHEN DONE.

# Chapter 1

## Introduction

This is the first chapter of your manuscript. Often it is titled, 'INTRODUCTION'. Mostly departments' style guides require that the first chapter is titled 'INTRODUC-TION,' but otherwise, you may use any title that suits your purpose. A chapter heading uses the "Heading 1" quick style. Using this style will allow Word to auto-populate the Table of Contents.

## 1.1 How to Use This Template [This is a First-Level Subheading]

The first-level subheading utilizes the "Heading 2" quick style. Using this style will include your first-level subheading in the Table of Contents. This template file has been set up to meet the formatting requirements for theses and dissertations but it does get some of the confusing stuff taken care of: the margins are correct; the table of contents is formatted correctly; the necessary parts are in the right order; the page numbers will appear in the right place and in the right form; it has an acceptable font face and size. Further, Appendix A has a description of the scheme for subheadings you should use if your departmental style guide doesn't specify one.

#### 1.1.1 This is a Second-Level Subheading

Second-level subheadings utilize Heading 3. It will be pretty obvious when you need to get rid of some text in this template. For example, this part of the introduction needs to go before you start typing. Easiest way to delete it is to click your cursor in front of the first paragraph, scroll down to the last line in the chapter, hold the SHIFT key down, and click after the last letter. 'SHIFT-clicking' like this selects everything between the two clicks.

#### 1.1.2 Inserting and Numbering Equations

To insert an equation to be referenced in the text, use the "INSERT" -> "Equation". Equations are generally described and referenced in the text as is done in the following sentence. Equation1.1below describes the relationship between the need for a vacation,  $VAC_{need}$ , and the available time to take a vacation,  $t_{VAC}$ . The equation number(1.1) that appears in the table is a sequential field code which allows equation numbers to update automatically by right-clicking highlighted text and selecting "Update Field." When adding an equation, select the number and bookmark it under the "INSERT" menu. When you reference the equation in the text you can insert that bookmark so numbers will automatically update.

$$VAC_{need} = \frac{1}{t_{VAC}} \tag{1.1}$$

#### 1.1.3 Inserting, Numbering, and Referencing Figures

When you insert an image into the text, it will look like Figure 1.1 below. In the previous sentence, a figure reference is inserted by cross-referencing the figure label and number (INSERT -> Cross-reference -> Reference Type: Figure -> Select figure entry and choose Insert reference to: Only label and number). Figure 1.1 should be written as bold.

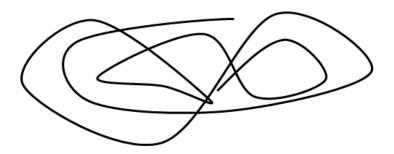


Figure 1.1: This is a figure. The "caption" uses the "Caption" theme from the quick styles menu above and is added by right-clicking the figure and selecting "Insert Caption..."

Number the figures by chapter; e.g. Figure 1.1 and Figure 1.2 to indicate the tables belong to Chapter 1. Whereas, Figure 2.1 and Figure 2.2 belong to Chapter 2 and so on. Title for the figure should be placed at below the table. Figure 1.2 shows another example of a figure.



Figure 1.2: Example of a Figure

### 1.1.4 Inserting, Numbering, and Referencing Tables

After a table is inserted, it must be captioned by selecting the Table and right clicking. Then click on "Insert caption..." The process is similar for captioning a figure except for the fact that a Table's caption appears above the table as opposed to the figure caption appearing below a figure. An example of a table is given in Table 1.1 below. By inserting the cross-reference to the table, the numbering will be done automatically.

Number the tables by chapter; e.g. Table 1.1 and Table 1.2 to indicate the tables belong to Chapter 1. Whereas, Table 2.1 and Table 2.2 belong to Chapter 2 and so on. Title for the table should be placed above the table. Table 2.1 shows an example of a table. Table 1.1 should be written as bold.

Table 1.1. E	Example	of a	table
--------------	---------	------	-------

S. No	Materials	Length (mm)	Width (mm)
1	Matels	10	6
2	Composites	12	8

#### 1.1.5 Things to be Careful of

You can make mistake when use the template. For example, when you delete the text on a page, be careful not to accidentally delete the marker, called a 'page break,' between the chapters or different types of pages. The page break marker makes your new chapter begin at the top of a page, no matter what editing you do before them. If you delete a section break, related to a page break, you may lose any formatting that was particular to that page.

#### 1.1.5.1 Using Tabs Correctly [This is a Third-Level Subheading]

When you put your headings into the Table of Contents, List of Tables, etc. things should line up pretty well if you use tabs to skip to the next column. If you use spaces to indent or move to the next column, you will have a mess. As spaces in most font families are not fixed in size, things won't necessarily line up perfectly and you may be required to fix it. Moreover, when you use spaces rather than tab settings to determine placement of text, any change in words, fonts, or margins requires a great deal of work to reformat. If you use tab settings to control placement, making such changes becomes trivial.

Because of the way tabs are set, if a chapter title or section name in the Table of Contents is very short, you may have to put an extra tab character to get the cursor to jump correctly.

#### 1.1.5.2 Using the Styles

The page and section heading styles have been set up as named styles in Word. The page headings in the preliminary pages (e.g. "Table of Contents"), each chapter heading (e.g. "Chapter 1: Introduction"), and the back page headings (e.g. "References") all use a style called "Heading 1". The first-level subheadings (example above) use a style called "Heading 2". The second-level subheadings use a style called "Heading 3". The third-level subheadings use a style called "Heading 3". The third-level subheadings use a style called "Heading 4". If you accidentally delete any of those headings, go to the Format/Style menu, select the appropriate style and "Apply". If you cannot find the style under the list of styles, change the pull-down below it called "List" to "All styles".

# Chapter 2 SETTING UP A NEW CHAPTER

Below are the steps for making a new chapter. This will help to begin a new chapter using this template. This will also help to get the page numbers correctly.

## 2.1 Moving to a New Chapter

To move to a new chapter, you must tell Word that you are moving on to a new page. You do this by inserting a page break. A page break forces the next line of text to appear at the top of a fresh page.

#### 2.1.1 How to Insert a Page Break

- 1. Go to the end of a chapter. That means, put your cursor after the very last character of that chapter.
- 2. It Return to move to a new paragraph.
- 3. From the Insert menu, choose Page Break.

If you are in Outline View (see View menu), you'll see a dotted line across the screen. That marks the end of the previous page. If you are in Page Layout view, you'll just see the top of a new blank page.

Begin typing. If you are in Page Layout view, when you get to the end of the first page, your text will skip to the next page. A page number will appear at the bottom center of the new page. The number will be gray, and you can't edit it. That's OK; that is the way it's supposed to look on the screen.

# Chapter 3 SUMMARY OF RESEARCH WORK

This is a 1-2 pager short summary of the total work done for a dissertation. It is larger than the abstract as the abstract alone may not fulfill the purpose of summarizing the entire thesis. It should be included in MS dissertation and for MS thesis.

Ideally, the short summary should be composed of 3-5 paragraphs that highlight, in relatively more details, the work carried out during the MS program.

The summary of the research work is optional.

It can be provided if required by international data base etc.

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## Chapter 4

# CONCLUSIONS AND FUTURE RECOMMENDATION

This section contains the concluding statements made at the end of the thesis. It is to restate the main argument. It reminds the reader of the key findings in the thesis, the strengths of your main arguments and reiterates the most important evidence supporting those arguments.

## Bibliography

It is highly recommended that you use some sort of reference manager when using the Word template. Tutorial classes can be taken for any effective reference manager such as EndNote, Zotero, Mendeley etc. Capabilities include automatic formatting of the Reference page and citations.

It is preferable to use APA/Harvard/IEEE reference style.

Use single spacing within the entries and doubles spaces after each one. These can be modified under Format | Paragraph but please note that double-spacing between entries and single-spacing within entries is required regardless of which method of citation and referencing you choose.

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## Appendix A

# DESCRIPTION OF DEFAULT SUBHEADING SCHEME

This appendix illustrates the default style of subheadings as chapter-level headings is bold, all upper case, and centered. Otherwise the font is the same font family and the same size or no more than 2 font points larger (e.g. 14 points vs. 12).

## A.1 First-Level Subheading

The default format for first-level subheadings is left-justified, bold, and upper and lower case (UC/LC). Alternatively, you may use plain (not bold), and all upper case (UC). The former of the two is built into this Word document. In either case, it should be the same size as the text font. If you use upper/lower case, capitalize words as you usually would in a title.

A blank line above the subheading has already been built into this template so it is not necessary to leave another blank line before headings so long as you are using the proscribed heading and subheading styles. Styles were discussed in Chapter 1 of this document.

#### A.1.1 Second-Level Subheadings

Second-level headings are also justified left. If the first-level subheading was UC/LC and bold, the second-level subheading will be UC/LC and italicized. That is the style built into this Word document.

Since a blank line above each subheading was built into this template, it is not necessary to leave another blank line before headings so long as you are use the proscribed subheading style.

#### A.1.1.1 Third-Level Subheadings

Third-level subheadings are plain UC/LC text and underlined. Capitalize as with the other subheadings.

#### A.1.1.2 Fourth-Level Subheadings

Fourth-level subheadings, if needed, should be plain UC/LC text, flush left.

#### LIST OF PUBLICATIONS

#### OPTIONAL SECTION

This is where you can place a list of your publication or alternately, you can include a PDF of a published article. This article may either be in color or black and white. If you have questions or need any guidance inserting a PDF into your document, contact our office.

All pages of publications need page numbers sequential to the number in the rest of your thesis. You may need to block out original page numbers to prevent confusion. You may use the landscape text box and rotate it to fit in the upper right hand corner of the page. You will need to ensure the page number is horizontal when using the text box.

If you have only one publication, list the title as PUBLICATION.

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