# GUIDELINES FOR THESIS PREPARATION

# NORTH BENGAL UNIVERSITY



"समानो मन्त्रः समितिः समानी"

#### **GUIDELINES FOR THESIS PREPARATION**

#### 1. INTRODUCTION

## 1.1 Purpose

This document, herein after referred to as the Thesis Guide, lists the general and specific requirements governing thesis preparation including guidelines for structuring the contents. For style, structure and presentation of the thesis, students may refer to additional style manuals or official template available in the University Website or standard reference guides such as APA or MLA and to the published literature in their respective field of study.

#### Thesis Submission

To have the thesis examined, the number of thesis copies to be submitted to the Registrar should correspond to the number of thesis supervisors plus three copies for a Ph.D. degree student along with soft copy in PDF.

Besides various existing requirements for thesis submission such as plagiarism test, clearance certificates, payment of thesis examination fees by the students the thesis supervisors should ensure that the guidelines have been adhered to. While submitting the thesis, every student is required to provide the Registrar a singed checklist in the suggested format.

#### 2. SPECIFICATIONS FOR THESIS FORMAT

## 2.1 Preparation of Manuscript and Copies

- 2.1.1 The thesis needs to be prepared using a standard text processing software and must be printed in black text (color for images, if necessary) using a laser printer or letter quality printer in standard typeface (Times New Roman or Sans Serif font).
- 2.1.2 The thesis should preferably be printed or photocopied on both sides of white paper. All copies of thesis pages must be clear, sharp and even, with uniform size and uniformly spaced characters, lines and margins on every page of good quality white paper of 75 gsm or more.
  - 2.1.3 Thesis should be free from typographical errors.
  - 2.1.4 Thesis must be accompanied by an Abstract as detailed under 3.2.1.1

## 2.2 Size and Margins

- 2.2.1 A4 is the recommended thesis size.
- 2.2.2 The top, bottom and right side margins should be 25 mm, whereas the left side margin should be 35 mm for both textual and non-textual (e.g., figures, tables) pages.
- 2.2.3 Content should not extend beyond the bottom margin except for completing a footnote, last line of chapter/subdivision, or figure/table caption.
- 2.2.4 A sub-head at the bottom of the page should have at least two full lines of content below it. If the sub-head is too short to allow this, it should begin on the next page.
- 2.2.5 All tables and figures should conform to the same requirements as text. Color may be used for figures. If tables and figures are large, they may be reduced to the standard size (provided the reduced area is not less than 50% of the original) and / or folded just once to flush with the thesis margin (if the page size does not exceed 250x360 mm).
- 2.2.6 Students must submit printed thesis copies in the standard size (as in 2.2.1). Students should also submit the thesis in soft form (PDF) for storage and archival.

## 2.3 Page Numbering

- 2.3.1 Beginning with the first page of the text in the thesis (chapter 1), all pages should be numbered consecutively and consistently in Arabic numerals through the appendices.
- 2.3.2 Page numbers prior to Chapter 1 should be in lower case Roman numerals. The title page is considered to be page (i) but the number is not printed.
- 2.3.3 All page numbers should be placed without punctuation in the upper right hand corner, 12 mm from the top edge and with the last digit even with the right hand margin.

## 2.3.4 Language Other than English

Students in using non-English language in language departments may submit manuscripts in a language other than English. The title of the thesis or dissertation should be written on the relevant language on the title page and abstract.

#### 2.3.5 Multi-Part and Journal Article Format

A multi-part presentation format may be used for combining research that has been conducted in two or more related or noon-related areas, or for presentation of combined journal articles (published or submitted for publication). Organization of the part or articles into chapters is recommended.

#### 2.3.6 Multi-Volume Thesis

A thesis may be in two or more volumes, if required. The volume separation should come at the end(s) of major division(s). The preliminary page prior to Chapter 1 are contained only in Volume I, except the title page.

## 2.4 Line Spacing

The general text of the manuscript should be in double spacing (3 lines per inch). Long tables, quotations, footnotes, multi-line captions and bibliographic entries (references) should be in single spacing (6 lines per inch), with text size in 11 points.

Block quotations, footnotes, endnotes, table and figure captions, titles longer than one line, and individual reference entries may be single-spaced.

Double spacing should follow chapter numbers, chapter titles and major section titles (Dedication, Acknowledgements, Table of Contents, List of Tables, List of figures, List of Abbreviations, Appendices, and References). Double spacing should also occur before each first – level and second -level heading, and before and after tables and figures embedded in the text. There should only be one blank space after headings.

#### 2.5 Tables, Figures and Equations

- 2.5.1 All tables (tabulated data) and figures (charts, graphs, maps, images, diagrams, etc.) should be prepared, wherever possible, on the same paper used to type the text and conform to the specification outlined earlier. They should be inserted as close to the textual reference as possible.
- 2.5.2 Tables figure and equations should be numbered sequentially either throughout the thesis or chapter-wise using Arabic numerals. They are referred to in the body of the text capitalizing the first later of the word and number, as for instance, Table 17, Figure 24, Equation (33), or Table 5.3, Figure 3.11, Equation (4.16), etc.
- 2.5.3 If tables and figures are of only half a page or less, they may appear on the same page as text but separated above and below by triple line spacing. Font size for text should be the same as for the general text.
- 2.5.4 Good quality Line Drawings / figures must be drawn using standard software that provides vector rather than bit-map graphics. Figures must be scalable.
- 2.5.5 Images, Photographs, etc. must be scanned in resolution exceeding 300 dpi with 256 grayscales for the monochrome images and 24 bit per pixel for the color images.

- 2.5.6 Figures commonly refer to photographs, images, maps, charts, graphs, and drawings. Tables generally list tabulated numerical data. These items should appear as close as possible to their first mention in the text. Tables and figures may be placed in appendices, if this is a departmental requirement or standard in the field.
- 2.5.7 Tables figures should be numbered with Arabic numerals, either consecutively or by chapter. Be consistent in the style used in the placement of tables and figure captions. Tables and figures may be embedded within the text or place on a page alone. When placed on its own page, a figure or table may be cantered on the page. When included with text, a table or figure should be set apart from the text.
- 2.5.8 Tables and figures, including captions, may be oriented in landscaper.
- 2.5.9 Table data and figure data must be kept together, if the information fist on one page.

#### 2.6 Font

Use a standard font consistently throughout the manuscript. Font size should be 10 to 12 point for all text, including titles and headings. It is permissible to change point size in tables, figures, captions, footnotes, and appendix material. Retain the same font, where possible. When charts, graphs, or spreadsheets are "imported," it is permissible to use alternate fonts.

Italics are appropriate for book and journal titles, foreign terms, and scientific terminology. Boldface may be used within the text for emphasis and / or for headings and subheadings. Use both in moderation.

## 2.7 Headings and Subheadings

Use heading and subheadings to describe briefly the material in the section that follows. **Be consistent** with your choice of "levels" and refer to the instruction on spacing, above, for proper spacing between headings, subheadings, and text. First -level headings must be listed in the Table of Contents. Second -level and subsequent subheadings may be included.

#### 2.8 Acronyms / Abbreviations/Capitalization

Abbreviations on the title page should appear as they do in the body of the thesis or dissertation. Examples: *Xenopus leaves*, Ca, Mg, Pb, Zn; TGF- $\beta$ , p53.

Capitalize only the first letter of words of importance, distinction, or emphasis in titles and headings. Do not alter the all-cap style used for acronyms (Example: AIDS) and organizational names (Example: IBM). Use the conventional style for Latin Words (Examples: in vitro, in vivo, in situ). Genus and species should be italicized. Capitalize the first letter of the Genus, but not that of the species name (Example: Streptococcus aureus).

## 2.9 Tables and Figures

## 2.10 Binding

The student should submit the copies of the thesis in fully bound form (soft cover or hard cover). Once the thesis is accepted, it is the student's responsibility to get it properly bound

before depositing the required number of copies with the University. The front cover of the bound copy should be same as the title page of the thesis. Please see the simple provided add the end.

#### 3. GUIDELINES FOR STRUCTURING CONTENTS

## **Sequence of Contents**

The following sequence for the thesis organization should be followed:

(i) Preliminaries Title Page As per the format given

Declaration of Researcher Certification of supervisor Anti-plagiarism Report

DRC Certificate (Format: at the end of the Thesis Guide, applicable for 2016 Regulation only)

**Abstract** 

Acknowledgement and /or Dedication (where

included) Preface

Table of contents List of Figures, List of Tables,

Illustrations, Symbols, etc (Wherever applicable)

(ii) Text of Thesis Introduction

The body of the thesis, summary and conclusion

- (iii) Reference Material List of references (where included), Bibliography
- (iv) Appendices where included
- (v) Index where included

## 3.1 All parts are not mandatory, for example:

Title page (required)

Dedication (optional)

Acknowledgment (optional)

Preface (optional)

Table of Contents (required)

List of Table (required)

List of Figures (required)

List of Abbreviations/Nomenclature/Symbols (optional)

#### **Text**

Introduction (may be referred to as Chapter 1) Body of Manuscript

**Reference** (required)

**Appendices** (optional)

All the headings are cantered (without punctuation) 25mm down the top edge of the page. The subsequent type-begins four spaces below the heading.

#### **Preliminaries**

- 3.2.1 Abstract
- 3.2.1.1 A Ph.D. thesis should contain an abstract not exceeding 1000 words (about four pages) in double spacing.
- 3.2.1.2 One PDF copy of the Abstract should be submitted together with the 10 Hard copies.
- 3.2.1.3 An abstract shall be printed in double space with the heading
- "ABSTRACT" in uppercase followed by certain preliminary information and the text. For textual matter, refer to the suggested format which is placed at the end of the Thesis Guide.
- 3.2.1.4 Abstract should be self -complete and contain no citations for which the thesis has to be referred.
- 3.2.2 Table of contents
- 3.2.1.1 The table of contents lists all material that follows it. No preceding is listed. Chapter titles, sections, first and second order sub-division, etc must be listed in it.
- 3.2.2.2 tables, figures, nomenclature, if used in thesis, are listed under separate headings.

#### 3.3 The Text of the Thesis

#### 3.3.1 Introduction

Introduction may be the first chapter or its first major division. In either case, it should contain a brief statement of the problem investigated. It should outline the scope, aim, general character of the research and the reasons of the student's interest in the problem.

#### 3.3.2 The Body of Thesis

This is the substance of the dissertation inclusive of all divisions, subdivisions, tables, figures, etc.

## 3.3.3 Summary and Conclusions

If required, these are given as the last major division (chapter) of the text. A further and final subdivision titled "Scope for further Work" may follow.

#### 3.3.4 Reference material

The list of reference should appear as a consolidated list with references listed either alphabetically or sequentially as they appear in the text of the thesis. If pertinent works have been consulted but not specifically cited, they should be listed as Bibliography or General References. Spacing and font size should be consistent inside a single reference, and there should be double spacing between two different reference (see Section 2.5).

#### Standard Reference Format:

For referencing an article in a scientific journal, the suggested format should contain the following information: authors, title, name of journal, volume number, page numbers and year. For referencing an article published in a book, the suggested format should contain, authors, the title of the book, editors, publisher, year, page number of the article in the book being referred to.

For referencing a thesis, the suggested format should contain, author, the title of thesis, where thesis was submitted or awarded, year.

A few examples of formats of references are given below and the student should be consistent in following the style.

**Journals** 

H.E.Exner, "Physical and Chemical Nature of Cemented Carbides," *International Metals Review*, 1979, v.24, pp. 149-173.

G.E.Spriggs, "The Importance of Atmosphere Control in Hard Metal Production," *Powder Metallurgy*, 1970, v.13, n. 26, pp. 369-393.

Conference Proceedings

H.F. Fischmeister, "Development and Present Status of the Science and Technology of Hard Materials," Science of Hard Materials, R.K. Viswanadham, D.J. Rowcliffe, and J. Gurland (eds.), Plenum Press, New York, USA, 1982, pp. 1-45.

W.H. Baek, M.H. Hong, S. Lee, and D.T. Chung, "A Study on the Shear Localization Behaviour of Tungsten Heavy Alloy," Tungsten and Refractory Metals 2, A. Bose and R.J. Dowding (eds.), Metal Powder Industries Federation, Princeton, NJ, USA, 1995, pp. 463-471.

**Books** 

R.M. German, Powder Injection Moulding, Metal Powder Industries Federation, Princeton, NJ, USA, 1990.

Thesis

J.L. Johnson, "Densification Microstructural Evolution, and Thermal Properties of Liquid Phase Sintered Composites," Ph.D. Thesis, The Pennsylvania State University, University Park, PA, USA, 1994.

**Technical Reports** 

E.G. Zukas, P.S.Z. Rogers, and R.S. Rogers, "Experimental Evidence for Spheroid Growth Mechanisms in the Liquid Phase Sintered Tungsten Based Composites," Informal Report: Los Alamos Scientific Laboratory, USA, 1976, pp. 1-35.

**Patents** 

V. Oenning and I.S.R Clark, U.S. Patent No. 4988386, 1991.

Journals in Non-English Language

L. Weihong and T. Xiuren, "Tungsten Matrix in Cu-W Contact Materials by Impregnation Process," *Powder Metallurgy Technology*, 1988, v. 6, n. 8, pp. 1-4. (in Chinese)

## 3.3.5 Appendix or Appendices

- 3.3.5.1 Supplementary illustrative material, original data, and quotations too lengthy for inclusion in the text or which is not immediately essential to an understanding of the subject can be presented in Appendix or Appendices (as Appendix A, Appendix B, etc.)
- 3.3.5.2 Each appendix with its title should be listed separately in the table of contents. Likewise, tables and figures contained in the Appendices are to be included in the lists of tables and figures, respectively

#### 4. Plagiarism Cheeking Guideline

The registered research scholar should submit the thesis by mail through supervisor for similarity analysis by URKUND at the office of the Information Scientist. A similarity value of maximum 10% subject to the following list of exclusions:

- a. Title page
- b. Declarations and Certifications
- c. Abstract
- d. Contents
- e. preface and acknowledgements
- f. References and Bibliography
- g. Appendix/Appendices
- h. Index

#### 5. CONCLUDING REMARKS

This Thesis Guide lists only the basics requirements for preparing the thesis. Over and above the aforementioned points, a thesis should be reader-friendly in both its appearance and presentation. Several aspects of thesis preparation, particularly style of writing and presentation, have not been discussed in great details. The student should follow appropriate ideas from standard literature of his/her area of research, and adopt a uniform style and format throughout the thesis, such as in the structural divisions/subdivisions of the thesis, in the mode of citing references and footnotes in the text, in using dimensions, units and notations, and in preparing table and figures, etc.

# Sample Formats for Certificate, DRC Certificate, Abstract/Synopsis, and Title Page

## **CERTIFICATE OF SUPERVISOR**

It is certified that the work contained in the thesis titled "Title of the Thesis," by "Name of the Student," has been carried out under my/our supervision and that this work has not been submitted elsewhere for a degree\*

Signature of Supervisor(s) Name(s) Department(s) North Bengal University

Month/Year

\*Note: This statement is mandatory.

# **Format of Abstract**

(Set line spacing to double spacing after Title)

Final title of dissertation, single-spaced, centred ALL CAPS

Your name, upper/lower case, centred

TEXT (Double spaced, justified)

Signature:

Date:

## **Format for Title Page**

Title of dissertation, upper case, single-spaced, centred (One inch from top of page to top of title)

(Spacing will vary depending on length of the title of thesis or dissertation)

By

Your Name (The following five lines must be included in this exact format)

Dissertation (or Thesis)

Submitted to the

North Bengal University

in partial fulfilment of the

requirements for the degree of

DOCTOR OF PHILOSOPHY

In

Subject

.....

## NORTH BENGAL UNIVERSITY

Month, Year

(Title Page carries the value of page "i", but do not print number on page)

# **Table of Contents Template**

# TABLE OF CONTENTS

DEDIC	ATION	iii
ACKNO	OWLEDGEMENTS	iv
LIST OI	F TABLES	vii
LIST OI	F FIGURES	ix
LIST OI	F ABBREVIATIONS	X
Chapter		
I.	Title of Chapter I	1
	First level heading one (upper/lower case)  First level heading two  First level heading three  Second level subheading one (upper/lower case)  Second level subheading two  First level heading four  First level heading five  Title of Chapter II  First level heading one (upper/lower case)  Second level subheading two  Second level subheading two  First level heading two  First level heading two  First level heading two  First level heading three	3681015172020232528
	Appendix	
	A. Title of First Appendix  B. Title of Second Appendix  C. Title of Third Appendix	137 143
	REFERENCES	149

Title of the Thesis	
A Thesis Submitted In Partial Fulfilment of the Requirements For the Degree of	

Name of the student

To the

DEPARTMENT OF ......

NORTH BENGAL UNIVERISTY

Month, year

## **Statement of Thesis Preparation (Checklist)**

- 1. Thesis Title:
- 2. Department:
- 3. Faculty:
- 4. Degree for which the thesis is submitted::
- 5. Thesis Guide was referred to for preparing the thesis.
- 6. Specifications regarding thesis format have been closely followed.
- 7. The contents of the thesis have been organized based on the guidelines.
- 8. The thesis has been prepared without resorting to plagiarism. From the plagiarism test, it is found that the similarity index of whole thesis is within the university guidelines.
- 9. I have attached published paper (in a journal with ISSN) with the thesis.
- 10. All sources used have been cited appropriately.
- 11. The thesis has not been submitted elsewhere for a degree.

(Signature of the stud	lent)	١
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Name: Roll No.:

Department/Centre:

## **DRC CERTIFICATE**

It is certified that the work contained in the thesis titled "Title of the Thesis," by "Name of the Student," has been carried out following University guideline and has been approved by the Departmental research Committee for processing by the Board of Research Studies.

Approved:		Date:
Name and Signature of DRC Member		
Name and Signature of DRC Member		
Name and Signature of DRC Member		
Name and Signature of DRC Member		
Name and Signature of DRC Member		
	Department: North Bengal	University

• Note: This statement is mandatory