

FORMAT FOR THESIS OF Ph.D., M.Phil. and M.Sc. DEGREES AS PER POST-GRADUATE ORDINANCE

(A.C. Meeting no. 351, dt: 19.6.2007)



**Department of Physics
Bangladesh University of Engineering and Technology**

General rules of fonts, typing, printing and papers

Size and Thickness of paper:

A4 size quality offset paper weighing between 70 and 80 gsm

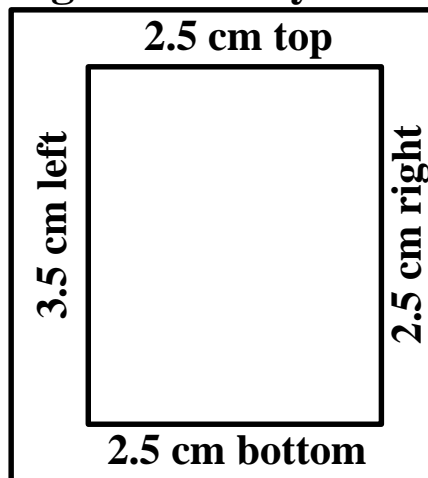
Typing or Print:

✓ **Fonts and Text- 12 points Times New Roman and should be justified.**

✓ **Line Spacing and equations:**

(a) **one and a half** in the text, (b) **single spacing** for footnotes or lengthy quotations. (c) **Triple or larger spacing** may be used where necessary to set headings, subheadings or illustrations, (d) Word division at the end of lines (**Hyphenation**) should be avoided if possible, (e) **equations** should be 12 point Times New Roman and are to be numbered sequentially by chapters (right justified) and should be enclosed in parenthesis such as (5.2). All equations, however, need not to be numbered-that is at the discretion of the author.

Margins and Layout of Text:



✓ This also applies to tables and figures

✓ Text and all preliminaries must be printed in single sided paper

General instruction for Pagination over the whole thesis

Preliminary pages before starting chapters.

- ✓ All of the preliminary pages must be numbered with consecutive lower case Roman numerals before the body text i.e., the 1st chapter started.
- ✓ Page number must be lower case Roman numerals (i, ii, iii, iv.....) **centered at the bottom margin** of the page.
- ✓ **Title page** carries the first roman number **i** but should be **unnumbered**. Roman number **ii** should be started from the next page.

Numbering each chapters.

- ✓ Page number (1, 2, 3, 4.....) must be positioned in the **upper right hand** corner of **top margin**.
- ✓ **The first page** of each chapter must be unnumbered but carries the implied number (for example the first page of the first chapter is 1, unnumbered. Number 2 will be in the 2nd page. Similarly, the all chapters first page must be unnumbered but carries the implied preceding number).

Tables and Figures within chapters.

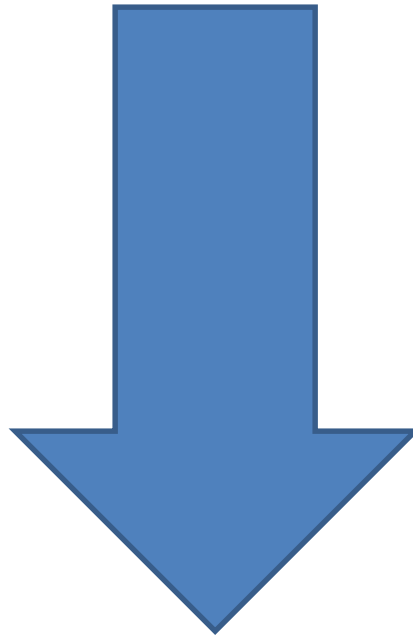
- ✓ The title of a table must be above the table and the title of on the figure, below the figure.

Arrangement of Items

1. A blank page
2. Title Page
3. Copyright (optional)
4. Approval
5. Declaration
6. Dedication (optional)
7. Acknowledgement
8. Abstract
9. Contents with page references
10. Individual listing of tables, figures, illustrations, etc (if included)
11. Text printed on single sized paper
12. References
13. Appendices (if included)
14. Blank pages (Two)



Start of the Thesis Format



Cover Page

Ph.D./M.Sc./M.Phil.

Name of the Author
(Initials and surname)

Year of Defense



Title of the Thesis
In Upper and Lower
(sentence case) Case
12 point bold

by

Name of the Author

Department of Physics
BANGLADESH
UNIVERSITY OF
ENGINEERING AND
TECHNOLOGY

Month and year of the
defense

***All fonts are 12 points**

Blank Page

At the beginning, just after the cover
one Blank Page should be added.

Title Page

12 Point Bold, Upper and Lower case letters

Development of Chemical and Biological Sensors Based on Graphene Nanocomposites

12 Point Lower case Letters

by

12 Point Upper and Lower case Letters

Mohammad Khurshed Alam

12 Point Upper case Letters

DOCTOR OF PHILOSOPHY / MASTER OF PHILOSOPHY
IN PHYSICS / MASTER OF SCIENCE IN PHYSICS

12 Point Upper and Lower case Letters

Department of Physics

12 Point Upper case Letters

BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY

12 Point Upper and Lower case Letters

August 2017

Certification page of the Ph.D./M.Phil./M.Sc. thesis

Thesis Title should be in
12 points and upper and
lower case letters

The thesis titled “-----
-----” Submitted by -----,
Roll No.:-----Session.:-----has
been accepted as satisfactory in partial fulfillment of the requirement for
the degree DOCTOR OF PHILOSOPHY / MASTER OF PHILOSOPHY
IN PHYSICS / MASTER OF SCIENCE IN PHYSICS
on.....

BOARD OF EXAMINARS

- | | |
|---|------------------------|
| (Signature)
1. Name of the Supervisor
Designation & Address | Chairman |
| (Signature)
2. Name of the Head of the Dept
Designation & Address | Member
(Ex-officio) |
| (Signature)
3. Name of the Member
Designation & Address | Member |
| (Signature)
4. Name of the Member
Designation & Address | Member |
| (Signature)
5. Name of the Member
Designation & Address | Member
(External) |

Declaration page

CANDIDATE'S DECLARATION

It is hereby declared that this thesis or any part of it has not been submitted elsewhere for the award of any degree or diploma.



Mohammad Khurshed Alam

12 points and name should be
in upper and lower case letters

Dedication page

12 points and upper and
lower case letters

This part is completely optional to the candidate

Acknowledgements

12 points and upper and lower case letters

→ **Acknowledgements**

12 points and upper and lower case letters

→ The student should acknowledge advice, service encouragement, library and information service support and source of financial support and anyone else who contributed anyway

Abstract page

12 points and upper and lower case letters

Abstract

The abstract may not exceed **350 words** for a Thesis of Ph.D. or **150 words** for a Thesis of M.Sc./M.Phil. degree. The abstract should be a miniature of the thesis and should contain summary of the results, conclusions and main arguments presented in the thesis.

Table of contents with page references

12 points and upper and lower case letters

Decimal System is advised for mentioning the headings and subheadings.

Contents	
Candidate's Declaration.....	iii
Dedication.....	iv
Acknowledgements.....	v
Abstract.....	vi
Contents	vii
List of Figures.....	
List of Tables.....	
List of Abbreviations	
CHAPTER 1: INTRODUCTION	1
1.1	1
1.1.1	
1.2 Motivation.....	
1.3 Outline of the research work	

Table of contents with page references

Contents (Cont...)

CHAPTER 2: LITURATURE REVIEW
AND THEORETICAL ASPECTS ?

2.1

2.1.1.....

2.2.....

CHAPTER 3: MATERIALS AND
METHOD (MATERIALS SYNTHESIS
AND CHARACTERIZATIONS
TECHNIQUES) ?

3.1

3.1.1.....

3.2.....

Table of contents with page references

Contents (Cont...)

CHAPTER 4: RESULTS AND DISCUSSION ?

4.1

4.1.1.....

4.2.....

CHAPTER 5: CONCLUSIONS ?

5.1

5.2.....

References..... ?

Appendices..... ?

List of Figures pages

12 points and upper and
lower case letters

List of Figures

Fig. 1.1 Schematic view of a general
sensor.

Fig. 1.2 Schematic representation of
Chemical sensors.

Fig. 1.3 Schematic representation of
Biosensors.

Fig. 1.4

List of Table pages

12 points and upper and
lower case letters

List of Tables

Table. 1.1

Table. 1.1

Table. 1.1

List of Abbreviations

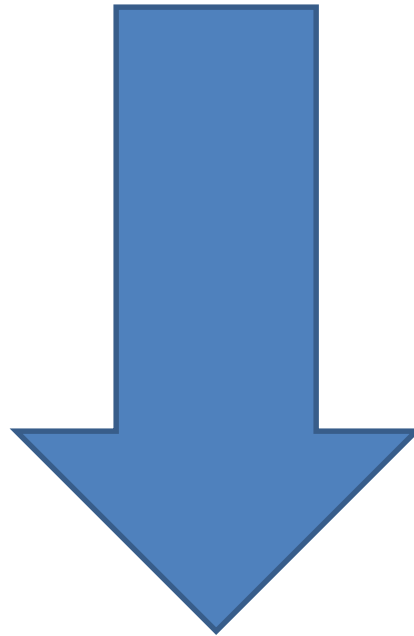
- ✓ Short name should be in upper case letters and bold
- ✓ illustration should be lower case letters starting with upper case each word
- ✓ Everything should have 12 points

List of Abbreviations

XRD	X-ray Diffraction
FE-SEM	Field Emission Scanning Electron Microscopy
TEM	Transmission Electron Microscopy
HR-TEM	High Resolution Transmission Electron Microscopy
EDS	Energy Dispersive Spectroscopy
SAED	Selected Area Electron Diffraction
FT-IR	Fourier Transform Infra-red Spectroscopy
XPS	X-ray Photoelectron Spectroscopy
UV-Vis	Ultra Violet Visible Spectroscopy
TGA	Thermogravimetric Analysis



Start of the Chapter



Some general rules for each chapter

Figure and Table

- ✓ **Fig.** should be centered between the left and right margin.
- ✓ Corresponding figure captions should be centered below the figure. Figure captions should stand alone.
- ✓ Should be consecutively numbered per chapter.
- ✓ Figure should be abbreviated as **Fig.** over the whole Theses.
- ✓ Text in Captions of **Fig.** and **Table** should be single spaced.
- ✓ The Headings with the number should be bold (i.e. **Fig. 3.1** and **Table 2.1**)
- ✓ **Table** should be centered between the left and right margin.
- ✓ Table Captions should be above the table.
- ✓ All fonts should be 12 points Times New Roman.

Abbreviations of Technical symbols and terms

- ✓ Abbreviations should be followed by the abbreviations published by American Standards Association.
- ✓ Students should consult the library.
- ✓ These abbreviations are also frequently found at the back of a standard texts on technical writing.

Main Body Text

14 points bold upper case letters
and Middle position

CHAPTER 1 INTRODUCTION

1.1 The Chemical Sensors

12 points bold, 1st letter of each
word should be upper case letters

1.1.1 Analytical parameters of sensors

12 points bold, Only the 1st letter
of the first word should be upper
case letter.

There should be a gap in between the left-justified paragraphs.

Otherwise, the paragraph may be indented by a constant amount.

Each Chapter is unnumbered
but carried the implied number

1

Chapter 1 Introduction should include the following things:

✓ Preliminaries about the Topic Items

- a) *What is the problem (Background of the research work) ?*
- b) *Why the problem is important?*
- c) *What previous works have been done?*
- d) *Justification of the research work*
- e) *Objective of the present research*
- f) *Why is the present research method better than the previous work?*
- g) *Outline of the thesis*

Outline of the research work

✓ Outline of the research work

In **chapter 1**, the motivation and objective of the thesis should be given on why and how you chose In addition, the different parameters which are analyzed will be described in detail.

In **chapter 2**, literature review in the relevant areas should be presented.

In **chapter 3**, the methodology in particular sample preparation and the characterization techniques that are used for different investigations..... will be presented.

In **chapter 4**, Results and discussion of the research work will be presented in details.

In **chapter 5**, Conclusion of the research work is presented in brief. A brief summary of the findings may be provided as a sub-section prior to mention conclusions. Hints for the further required research should also be mentioned here.

Chapter 2

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and middle position



CHAPTER 2

LITURATURE REVIEW AND THEORETICAL ASPECTS

**EACH CHAPTER SHOULD
BE BEGIN ON A NEW PAGE.**

The student should include literature review in the relevant areas of his/her work

Chapter 3

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and middle position



CHAPTER 3
MATERIALS AND METHOD (MATERIALS
SYNTHESIS AND CHARACTERIZATIONS
TECHNIQUES)

**EACH CHAPTER SHOULD
BE BEGIN ON A NEW PAGE.**

- ✓ Describe the detail methods/techniques used for your study.

Chapter 4

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and middle position



CHAPTER 4 **RESULTS AND DISCUSSION**

**EACH CHAPTER SHOULD
BE BEGIN ON A NEW PAGE.**

Mention your findings/results and discuss about your major results, explain them with the aid of existing theories

Chapter 5

14 points bold upper case letters
and middle position



CHAPTER 5 CONCLUSIONS

**EACH CHAPTER SHOULD
BE BEGIN ON A NEW PAGE.**

- ✓ A brief summary of your findings may be resented initially.
- ✓ Then conclusions of the research work should be presented in brief based on your findings/results.
- ✓ You should also include about the scope of future work based on your present research (optional).

References

14 points bold upper and lower case letters, middle



References

- ✓ Must be provided at the end of the thesis/project before any appendices.
- ✓ Should be typed in single spacing.
- ✓ A blank line should be inserted between references.
- ✓ Should be numbered either in order of citation in the text or in alphabetical order.
- ✓ Should be one reference per reference number.
- ✓ Should be enclosed in square bracket [].
- ✓ All reference listed in the reference section must be cited in the text.

References (Cont...)

Reference of a journal must include

- If titles of journal is abbreviated, they must follow a standard form as used in reputed research journals.
- Author's name and initials separated by comma from the next author

Nichols, M. A., Mitchell, R. L., and Garg, R. D., “Study of room temperature magnetoelectric coupling in Ti substituted bismuth ferrite system,” *J. Appl. Phys.*, vol. 100, pp 074111, 2006

Reference of a book must include

- Name of the Authors with initials, title of the book, title of the article in the book, volume (if applicable), editors (if applicable), place of publication (if applicable), publishers (if applicable), year of publications and specific page number.

References to conference proceedings must include the date and location of the conference.

Student should consult in the central library for more information and clarifications.

References (Cont...)

Some examples of References as per ordinance:

Books:

- [1] Borgnakke, C., "Flame Propagation and Heat-Transfer Effects in Spark-Ignition Engines," in J. C. Hilliard and G. S. Springer (eds.). *Fuel Economy in Road Vehicles Powered by Spark Ignition Engines*, chap. 5, pp. 183-224, Plenum Press, New York, 1984.
- [2] Farrelly, D. (1966) *The book of bamboo*. Thames and Hudson Ltd., London.

Periodicals:

- [3] Benson, R. S., Garg, R. D., and Woolatt, D., "A Numerical Solution of Unsteady Flow Problems," *Int. J. Mech. Sci.*, vol. 6, pp. 117-144, 1964.
- [4] N. R. Dhar, S. Paul and A. B. Chattopadhyay, (2000) "Role of Cryogenic Cooling on Cutting Temperature in Turning Steel", *Trans. of the ASME, Journal of Manufacturing Science and Engineering*, Vol. 123, pp. 1-9.

Articles from published conference proceedings:

- [5] Nichols, M. A., Siegel, H. J., Dietz, H. G., Quong, R. W., and Nation, W. G., "Minimizing memory requirements for partitionable SIMD/SPMD machines," in *1990 International Conference on Parallel Processing*, Vol. I, Aug. 1990, pp. 84-91.

Papers presented at conferences (unpublished):

- [6] Ebehard, D., and Voges, E., "Digital single sideband detection for interferometric sensors," presented at 2nd Int. Conf. Optical Fiber Sensors, Stuttgart, F.R.G., 1984.

Reports:

- [7] Reber, E. E., Mitchell, R. L., and Carter, C. J., "Oxygen absorption in the earth's atmosphere," Aerospace Corp., Los Angeles, CA, Tech. Rep. TR-0200 (4230-46)-3, Nov. 1968.
- [8] GOB (1993) *National housing policy 1993*. Government of Bangladesh, Ministry of Housing and Public Works, Dhaka.

Theses:

- [9] Rahman, M. A., *The Structure of Turbulent Mixing Layers*, M. Sc. Engg. Thesis, Department of Mechanical Engineering, Bangladesh University of Engineering and Technology, 1998.

References (Cont...)

Some Internet Links are given below where the students also can find the proper link of writing the abbreviations of journal papers

1. <https://guides.lib.berkeley.edu/bioscience-journal-abbreviations>
2. https://images.webofknowledge.com/images/help/WOS/P_abrvjt.html
3. <https://www.library.caltech.edu/journal-title-abbreviations>
4. <https://guides.lib.berkeley.edu/bioscience-journal-abbreviations/a-b>

Appendices

14 points bold upper and lower case letters, middle



Appendices

- ✓ List of papers/Conference presentations
- ✓ Computer programs, lengthy tables and detailed laboratory procedures.
- ✓ Appendix must be paginated in accordance with the text.
- ✓ All tables and figures in the appendices must be appropriately labeled and listed in the lists of Tables and Figures

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