

# **GENERAL GUIDELINES FOR THESIS WRITING**



**Department of Life Sciences  
School of Science  
University of Management and Technology,  
Lahore, Pakistan  
2017**



## Guidelines for Thesis Writing

Each thesis should contain the following elements arranged in the order listed:

- Fly page
- Title Page
- Declaration
- Similarity Report (Dully verified by UMT officials)
- Research Completion Certificate
- Dedication
- Acknowledgments
- Table of Contents
- List of Tables and List of Figures, if any
- List of Abbreviation, if any
- Abstract
- Text- The text should be divided into chapters.
- References

**Hard Binding:** Color of binding should be blue with silver engraved printing. Spine of the book cover should have these details: MS Thesis, Student Name, ID and Year.

**Title:** Uppercase, 16 point, Bold, Times New Roman, Single Line Spacing, Centered

**Acknowledgement:** Should be brief

**List of Contents:** The table of contents should contain all the headings, subheadings and their page numbers from each chapter. The term “Table of Contents” should be center aligned and the page numbers should align at the right margin. Pre-pages should be numbered by Roman Numbering.

**List of Abbreviations:** Include a list of all abbreviations used in the thesis in alphabetical order.

**Abstract:** Please provide a short and comprehensive abstract (Not more than 300 words). Give brief background, aims of the study, methodology, important findings and conclusion of your study.

**Main Text:** 12 point, Times New Roman, Line Spacing 2, Headings bold. Left Margin 1.5; Right, Top and Bottom Margin 1.0

**Headings:** Do not underline, avoid using colon or semi colon. For example  
INTRODUCTION

- Level 1 heading of Chapter 1 should be written as 1.1, Uppercase, Times New Roman, 14 point and bold.

For example **1.1 HEADING 1**

- Second Level heading should be written 1.1.1, Capitalize each word, Times New Roman, 12 point and bold.

For example **1.1.1 Heading 2**

- Third Level heading should be written 1.1.1.1, Capitalize each word, Times New Roman, 12 point and italic.

For example *1.1.1.1 Heading 3*

- Same guidelines to be followed for chapter 2 and so on.

**Introduction:** Must contain the comprehensive literature on the problem to be addressed and a valid hypothesis to be tested in the study (15-25 pages). At the end of chapter objectives of the study should be listed.

**Materials and Methods:** Must contain all details of the materials and experimental procedure for the successful repetition of the experiment.

**Result:** Explain the results of your study in detail.

**Discussion:** Please avoid to make subsections. Discussion should be logical and the results of your study must be discussed and compared in the light of previous literature justifying your findings.

**Conclusions:** Can be given in a separate heading or a short paragraph discussing conclusion and your inferences from the study.

**References:** Must be sorted alphabetically and formatted in line with the guideline given in the instructions.

**Tables:** Tables should be numbered consecutively and must have descriptive captions which should be understandable without reference to the text. Table caption should be above the table. Instead of creating multiple small tables, the author is requested to consolidate small tables into a comprehensive one as far as possible. However, please take care that they must fit the available space (7.5 x 5 inches) of the paper. Table number should be according to the chapter number e.g., Table in Chapter 1 must be numbered like 1.1, 1.2 and so on.

For example, **Table 1.1:** Title of the table should not be bold.

**Figures:** Photographic prints must be of high quality and with strong contrast. Figure caption should be below the figure. Figure number should be according to the chapter number e.g., Figure in Chapter 1 must be numbered like 1.1, 1.2 and so on.

For example, **Figure 1.1:** Title of the figure should not be bold.

**Header and Footer:** Write chapter number in header (Left side), i.e. Chapter 1. Mention page numbering in footer (Right side).

**References:** The authors must stick to the APA style while formatting their references and bibliography.

- In the text, the literature should be cited using author-date method. In case of one author it should be like (Stephens, 1961).
- In case of two authors, both authors must be separated with "&" e.g. (Brown & Endrizzi, 1964). However, in running text, a complete "and" should be used rather than "&" e.g. "Brown and Endrizzi (1964) reported that".
- In case of more than two authors, the name of first author should be followed by *et al.* e.g. (Ashraf *et al.*, 2008).
- In case of two or more citations in the text, the citation must be ordered in chronological order (Stephens, 1961; Brown & Endrizzi, 1964; Ashraf *et al.*, 1991, Ashraf, 2004; Sajid & Aqeel; 2008).
- In case of publications by the same author in the same year, the references must be separated by a, b, c etc ( e.g. Ashraf *et al.*, 2004a, 2004b; Ashraf and Ali, 2008).
- Write the journal name in italics form e.g; *Molecular biology report.*

### **Journal article**

- References should be arranged in alphabetical order and the titles of journals should be given full. Avoid using *et.al* and enlist the names of all authors of publication.
- All authors name. (Year). Title of the article. *Full Journal Name*. Issue No; Page No.

For Example:

If there is only one author, then:

- Afzal, M.S. (2017). Hepatitis C Virus and Interferon-Free Antiviral Therapeutics Revolution: Implications for Pakistan. *Viral Immunology*. 2; 3-7

If there are two authors, then:

- Misra, S., & Sharma, K. (2017). Pharmacophore modelling, atom-based 3D-QSAR generation and virtual screening of molecules projected for mPGES-1 inhibitory activity. *SAR and QSAR in Environmental Research*, 28(1), 17-39.

If there are more than two authors, then:

- Sticca, T., Caberg, J. H., Wenric, S., Poulet, C., Herens, C., Jamar, M., & Gothot, A. (2017). Genomic studies of multiple myeloma reveal an association between X chromosome alterations and genomic profile complexity. *Genes, Chromosomes and Cancer*, 56(1), 18-27.

### **Book**

- Davis, P.H. (1988). *Flora of Turkey and East Aegean Islands*. (3<sup>rd</sup> Ed) Edinburgh University Press, London, UK.

### **Book Chapter**

- Alam, S.M. (2002). Nutrient by plants under stress conditions. In: Pessrakli, M. (2<sup>nd</sup> Ed.) *Handbook of Plant and Crop Stress*. Marcel Dekker, New York, USA. pp. 227-246.
- Ashraf, M.Y., Sarwar, G. (2002). Salt tolerance potential in source members of Brassicaceae: Physiological studies on water relations and minerals contents.
- Ahmad, R., Malik, K.A. (Eds.) *Prospects for Saline Agriculture*. Klawer Academic Publishers, The Netherlands, pp. 237 -245.

### **Edited Book**

- Rechinger, K.H. (Ed.) *Flora of Iran. 1963-2005*. Klawer Academic Publishers, The Netherlands, pp.267-289

### **General Guidelines**

- Each chapter should start from a new page.
- Preliminary pages must be added and numbered in roman till Abstract page.
- Scientific/ Species names must be in italic. i.e., *Hepacivirus*, *Alium cepa*
- In case of mentioning more than two authors, the name of first author should be followed by *et al* and must be in italic e.g. (Ashraf *et al.*, 2008).
- Plagiarism of the thesis must be less than 19%

- Thesis has to be submitted in ring binding initially. Final copy in hard binding should be submitted after successful defense.
- Four (4) hard copies should be submitted at the end, 1 for library, 1 for supervisor, 1 for department and 1 is personal copy of student.

**PREVALENCE OF UNTYPABLE HCV VARIANTS IN  
DIFFERENT DISTRICTS OF PUNJAB, PAKISTAN AND A  
CASE REPORT OF ITS TREATMENT STRATEGY**

Note: (16 point, Bold, Times New Roman, Centered, Single Line Spacing, Uppercase)

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Submitted By

Student Name \_\_\_\_\_ ID: \_\_\_\_\_

Note: (16 point, Times New Roman, Capitalize each word)

Supervised By

Note: (16 point, Times New Roman)

Dr. \_\_\_\_\_

Note: (16 point, Times New Roman, Capitalize each word)

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**Department of Life Sciences  
School of Science  
University of Management and Technology,  
Lahore, Pakistan  
2017**

Note: (Single line spacing, 16 point, Times New Roman, Centered)

**PREVALENCE OF UNTYPABLE HCV VARIANTS IN  
DIFFERENT DISTRICTS OF PUNJAB, PAKISTAN AND A  
CASE REPORT OF ITS TREATMENT STRATEGY**

Note: (Single line spacing, 16 point, Bold, Times New Roman, Uppercase)

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Submitted to University of Management and Technology Lahore

In partial fulfillment of the requirements

for the award of degree of

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**MS**

**BIOTECHNOLOGY/ BIOCHEMISTRY**

Note: (Single line spacing, 14 point, Times New Roman, Uppercase)

**BY**

\_\_\_\_\_

**ID**

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Session: 2016- 2018

**Department of Life Sciences  
School of Science  
University of Management and Technology,  
Lahore, Pakistan**

Note: (Single line spacing, 16 point, Times New Roman)



# DECLARATION

I \_\_\_\_\_ Student of \_\_\_\_\_ ID \_\_\_\_\_ aware of and understand the university's policy on plagiarism and I certify that this thesis titled "**Prevalence of untypable HCV variants in different districts of Punjab, Pakistan and a case report of its treatment strategy**" is my own work, except where indicated by referencing, and the work presented in it has not been submitted in support of another degree or qualification from this or any other university or institute of learning.

All experimental work belong to me; the collaborative contributions have been indicated clearly and acknowledged. Due references have been provided on all supporting literatures and resources.

Note: (Double line spacing, 12 point, Times New Roman, Justified)

**Dated:** \_\_\_\_\_

\_\_\_\_\_

**Student Name**



## **Similarity Report**

(Signed by CLO/UMT Officials)

## RESEARCH COMPLETION CERTIFICATE

This is to certify that the thesis entitled “**Thesis Title (In Bold)**” submitted by **Student Name and ID (in Bold)** has been accepted towards the partial fulfillment of the requirement for MS degree in **Biotechnology/Biochemistry**. The quantum and quality of the work contained in this thesis is adequate for the award of degree.

Note: (Double line spacing, body text 12 point, Times New Roman)

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**Supervisor  
Name**

---

**External Examiner  
Name**

---

**Dr. Nouman Rasool**  
**Chairman,**  
Department of Life Sciences,  
UMT, Lahore

---

**Dr. Muhammad Azhar Iqbal**  
**Dean**  
School of Science,  
UMT, Lahore

## DEDICATION

*I dedicate*

*My work to*

---

*for their endless support during my whole educational career.*

## **ACKNOWLEDGMENTS**

All the praises are for the Allah Almighty who bestowed me with the ability and potential to complete this Thesis Report. Words are very few to express my gigantic meek obligations to my affectionate Parents for their prayers and strong fortitude to enabling me to achieve this job.

My deep sense of gratitude to my Project Supervisor Dr. \_\_\_\_\_

(Assistant Professor, Department of Life Sciences, University of Management and Technology, Lahore) for his unending support and guidance.

My heartfelt thanks to Dr. Nouman Rasool (Chairperson, Department of Life Sciences, University of Management and Technology, Lahore); for their encouragement, insightful comments, and hard questions.

Note: (Double line spacing, 12 point, Times New Roman, Justified)

**Name of the Student**

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## LIST OF ABBREVIATIONS

HIV	Human immune deficiency virus
HCV	Hepatitis C virus
HCC	Hepatocellular carcinoma
WHO	World Health Organization
HA	Hepatitis A virus
HBV	Hepatitis B virus
NANBH	non A non B hepatitis
UTR	Untranslated region
ORF	Open reading frame
VLDL	Very low density lipoprotein
RdRp	RNA dependent RNA polymerase
HMA	Heteroduplex mobility assays
NGS	Next-generation sequencing
RT PCR	Reverse transcriptase PCR
SVR	Sustained virological response
PIs	Protease inhibitors
DAAAs	Direct acting antivirals
ND	Non determinant

# Guidelines for Synopsis

Each thesis should contain the following elements arranged in the order listed:

- Fly page
- Title Page
- Table of Contents
- List of Tables and List of Figures, if any
- List of Abbreviation, if any
- Text- The text should be divided into headings.
- References

Note that all thesis/dissertations contain these items, and must be placed in the order mentioned above.

**Introduction:** Must contain the comprehensive literature on the problem to be addressed and a valid hypothesis to be tested in the study (2-5 pages).

**Review of Literature:** It should be comprehensive and must relate to the theme of research (Minimum 3 pages).

**Objectives of the Study:** This section contains the specific objectives of the study.

**Materials and Methods:** Must briefly describe the experimental procedures for the successful completion of the study.