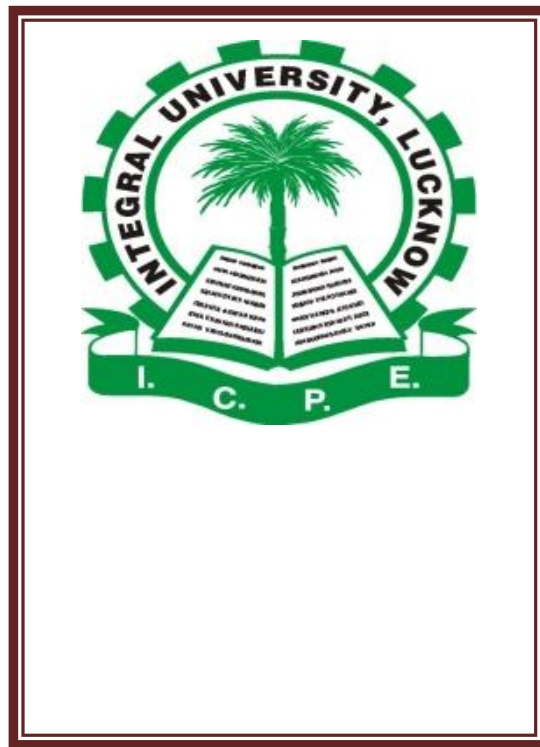


NORMS AND STANDARDS FOR Ph.D. THESIS FORMAT

Effective from August 2016



**OFFICE OF THE DEAN
RESEARCH AND DEVELOPMENT
INTEGRAL UNIVERSITY
LUCKNOW**

PREPARATION OF Ph.D. THESIS

(Prescribed Format & Specifications)

1.GENERAL:

This manual is intended to provide broad guidelines to the Ph.D. scholars in preparation of their theses. In general, the thesis shall report, an account of original research work of the research scholar in an organized and scholarly fashion, leading to the discovery of new facts or techniques or correlation of facts already known (analytical, experimental, hardware oriented, etc.) and demonstrating a quality as to make definite contribution to the advancement of knowledge. Further, it shall emphasize the research scholar's ability to undertake sustained research and present the findings in an appropriate manner with actual accomplishments of the work.

2. ARRANGEMENT OF THE CONTENTS OF THESIS:

The headings of all items listed below should be typed in capital letters and centered 50 mm below the top of the page. The text should commence 4 lines below the main headings. All page numbers (whether Roman numerals or Arabic numerals) should be typed on the lower right hand corner 20 mm from the bottom with the last digit in line with the right hand margin. The page numbering for all the items from (iii) to (xi) listed below should be done using lower case Roman numerals (starting from ii, iii, iv.....) and the pages thereafter should be numbered using Arabic numerals (1, 2, 3.....) from chapter 1 till the end of the appendices.

The sequence in which the thesis material should be arranged and bound is as follows:

- (i) Cover Page
- (ii) Title Page
- (iii) Certificate/s(Supervisor and/or Co- Supervisor)
- (iv) Abstract
- (v) Declaration
- (vi) Copyright Transfer Certificate
- (vii) Acknowledgement
- (viii) Table of Contents with page Numbers
- (ix) List of Tables
- (x) List of Figures
- (xi) List of Symbols, Abbreviations, Nomenclature etc.
- (xii) Chapters 1, 2, 3.and so on
- (xiii) Bibliography
- (xiv) Appendices I, II, II..... and so on.
- (xv) List of Publications of Candidate's work

3. SIZE OF THESIS: The size of thesis should not normally exceed 300 pages starting from the first page of Chapter 1 to the last page of the Appendix.

4. COLOR OF THESIS: The thesis cover page shall be Dark Grey with golden text. Thesis title (vertical direction) and year (horizontal direction) of passing PhD must be printed in golden text on the spine of the thesis.

5. PAGE DIMENSIONS AND DIMENSIONAL MARGINS: The thesis should be typed on Standard A4 size (297 mm X 210 mm) sheets.

| | |
|-------------|-------------|
| Top edge | 30 to 35 mm |
| Bottom edge | 25 to 30 mm |
| Left side | 35 to 40 mm |
| Right side | 20 to 25 mm |

The thesis should be prepared on good quality white paper preferably no less than 75 gsm. Tables and figures should be prepared on same type of paper and should also conform to the margin specifications. Large size figures should be photographically or otherwise reduced to the appropriate size before insertion.

6. FONT TYPE AND SIZE: The font style should be Times New Roman, font size 12 and line spacing of 2.0 should be used for typing the general text in the thesis. The same font should be used uniformly throughout the thesis, unless otherwise mentioned. A sub-heading at the bottom of a page must have at least two full lines below it or else it should be carried over to the next page. The last word of any page should not be split using a hyphen.

Single spacing should be used for typing long tables, long quotations, footnotes multiline captions for tables or figures and references. All quotations exceeding one line should be typed in indented space; the indentation should be 15 mm from the margin.

7. COVER PAGE (TITLE PAGE)– A specimen copy of the Cover Page (Title Page)for the thesis is given in *Annexure-I*. No other logo shall appear on the cover or title page

8. CERTIFICATES – The certificate(s) by the Supervisor(s) shall be included in double line spacing using font type Times New Roman and font size 12, as per the format shown in *Annexure-IIa*. If co-supervisor is also involved complete the *Annexure-IIb*, These must be typed on the respective official letter head.

The certificate shall carry the Supervisor’s signature and shall be followed by the Supervisor’s name, academic designation, (do not include any responsibilities of administrative nature here), department and full address of the institution where the Supervisor guided the research scholar. Declaration certificate

by students shall be as per the specimen shown in *Annexure-III*. Copyright Transfer Certificate shall be attached as per the *Annexure-IV*.

9.ABSTRACT – Abstract should be an essay type of narration, not exceeding four pages, outlining the research problem, the methodology used for tackling the problem and a summary of the major findings, typed in double line spacing using font type Times New Roman and font size 12.

10. ACKNOWLEDGEMENT – The acknowledgement shall be brief and should not exceed two pages when typed in double spacing using font type Times New Roman and font size 11. The scholar's signature shall be made at the end above his/her name typed in capitals.

11. TABLE OF CONTENTS– Font size 12 and line Spacing of 1.5 should be adopted while typing the Table of Contents. The specimen copy of the Table of Contents for thesis is given in *Annexure-V*.

12. LIST OF TABLES AND FIGURES- These will be two separate lists on different pages. List of tables will be first followed by list of figures. The lists should include exactly the same titles and legends as they appear in the respective tables and figures used within the text in the thesis. Page numbers on which they appear should be mentioned in the list. Spacing of 1.5 and font size 12 should be adopted while typing the matter under these heads.

13. LIST OF SYMBOLS, ABBREVIATIONS, NOMENCLATURE ETC. - Spacing of 1.5 should be adopted while preparing this list. Standard symbols, abbreviations and nomenclature etc. should be used. Abbreviations in the text should be mentioned on their first appearance and properly explained.

14. CHAPTERS –Apart from the introductory chapter, the main body of the thesis may have any number of relevant chapters properly numbered. Unnecessary chapters should not be included just to increase the number of pages in the thesis. As far as possible, the desired number of pages as mentioned earlier should be adhered to. To put the point across; crisp headings, division headings and sub-headings should be used. The main text should be divided into several chapters based on the aims and objectives. Each chapter should be given appropriate title and sub –titles wherever necessary like; short introduction related to the chapters, material and method, results, discussion and conclusion. The tables and figures in a chapter should be included using single space and placed in the same page as the concerned material, directly underneath the matter to which they refer or describe. Chapter 1 (Introduction and Review of literature including hypothesis, aims, objectives and significance); Chapter 2, 3, 4..... (Introduction, material and methods, results, discussion and conclusion) shall be the standard format for each chapter. The word CHAPTER (font size 14 bold) should be centered 50 mm down from the top of the page. Two spaces below, the title should be typed centrally in capital letters. The text should commence on next page. The division and sub-division captions along with their numberings should be tabbed and formatted as specified above. The typed material should commence 2 spaces below the division or sub-

division headings. Within a division or sub-division paragraphs are permitted. The paragraphs should commence 3 spaces below the last line of the preceding paragraph and should be suitably indented from the left hand margin. Alignment of the text/paragraphs should be 'justified' throughout the thesis. The numbering of chapters should be done using Arabic numerals only and further decimal notations should be used for numbering the divisions and sub-divisions within a chapter. (Specimen copy is attached as *Annexure-Va*).

15. TABLES & FIGURES – The word table in this context means the tabulated numerical data included in the thesis as well as appendices and all diagrammatical material such as charts, pictures, graphs, maps, photographs and diagrams may be designated as figures.

Tables and figures appearing anywhere in the thesis should bear captions and appropriate numbers in font size 12 and bold. If four figures happen to be in chapter 3, then the numbering will be as Figure 3.1, Figure 3.2 and so on. The numbering on the table will also follow the same pattern as Table 1.6, Table 4.2 etc. within chapters 1 and 4, respectively. They would be written as Table (AII.1), Table (AIII.4) if tables appear in Appendix –II & III of the thesis. Same rule will apply for figures in Appendices.

- A table or figure including the caption should be accommodated within the prescribed margin limits and appear on the page or after the page (if the table or figure cannot be adjusted on the same page) where their first reference is made.
- Footnotes should be used sparingly. They should be typed using single spacing and placed in the very same page which refers to the material they explain.
- Tables and figures on half a page or less in length may appear along with the text. However, they should be separated from the text both above and below by triple spacing. Two or more small tables or figures may also be grouped on a single page.
- All tables and figures should be prepared on the same paper used for the preparation of the rest of the thesis.
- Captions should be placed above the tables and below in/case of figures. No figure or table should be included in the thesis without a proper caption legend. Captions should be self-explanatory to the extent possible.
- Samples of fabric, leather, etc. if absolutely necessary, may be fixed/ pasted properly on a page and should be treated as figures.

Important: - Copyright permission shall be enclosed for the tables/figures reproduced from the published articles, reviews and books.

16. EQUATIONS – Any equations appearing in the chapters or appendix should also be numbered serially. For example, an equation appearing in chapter-6 and it happens to be the eighth equation in that

chapter; it should be numbered as Eq. (6.8). Similarly, while referring to 3rd equation in Appendix –II it would be typed Eq. (AII.3).

17. REFERENCE CITATIONS IN TEXT– APA utilizes a system of brief referencing in the text of a paper, whether one is paraphrasing or providing a direct quotation from another author’s work. Citations in the text usually consist of the name of the author(s) and the year of publication.

- **Indirect Quotation with Parenthetical Citation**

Libraries historically value intellectual freedom and patron confidentiality (LaRue, 2007).

- **Indirect Quotation with Author as Part of the Narrative**

LaRue (2007) identified intellectual freedom and patron confidentiality as two key values held historically by libraries.

- **Direct Quotation with Parenthetical Citation**

Darwin used the metaphor of the tree of life “to express the other form of interconnectedness–genealogical rather than ecological” (Gould & Brown, 1991, p. 14).

- **Direct Quotation with Author as Part of the Narrative**

Gould and Brown (1991) explained that Darwin used the metaphor of the tree of life “to express the other form of interconnectedness–genealogical rather than ecological” (p. 14). Some examples of citations in the Text

- Brown (1991) described...
- Brown and Martin (1994) described.....
- Brown et. Al. (1994) described....

18. BIBLIOGRAPHY – A bibliography provides an alphabetical list of sources that may have been used in order to complete your research work. Bibliography should be in alphabetical order, typed in double line spacing using font type Times New Roman and font size 12. All the books, Journals, magazines, websites, etc. referred to, during the course of research work, should be mentioned here.

Books:

Author, A. A. (Year of Publication). *Title of work*. Publisher City, State: Publisher.

Example:

Finney, J. (1970). *Time and again*. New York, NY: Simon and Schuster.

Books found in a Database/e-book

Author, A.A. (Year of Publication). *Title of work*. Retrieved from <http://xxxx> or [doi:xxxx](https://doi.org/xxxx)

Example:

Sayre, Rebecca K., Devercelli, A.E., Neuman, M.J., &Wodon, Q. (2015). *Investment in early childhood development: Review of the world bank’s recent experience*. Doi: 10.1596/978-1-4648-0403-8

Book Chapter:

Author, A.A. (Publication of Year). Name of the Titles. Chapter Name (pp. x-y). Place: Publisher.

Example:

Clason, G. S. (2008). The tale of seven remedies for a lean purse. *The richest man in Babylon* (pp. 23-25). Charleston, SC:BN Publishing.

In case of more than 2 author's, it should be cited in the text as Could et al, (1991)

Print Journals:

Author, A.A. (Publication Year). Article title. *Periodical Title, Volume*(Issue), pp.-pp.

Example:

Nevin, A. (1990). The changing of teacher education special education. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, 13(3-4), 147-148.

Online Journals:

Author, A.A. (Publication Year). Article title. *Periodical Title, Volume*(Issue), pp.-pp. doi:XX.XXXXXX or Retrieved from journal URL

Example:

Jameson, J. (2013). E-Leadership in higher education: The fifth “age” of educational technology research. *British Journal of Educational Technology*, 44(6), 889-915. Doi: 10.1111/bjet.12103

Print Magazine:

Author, A.A.(Year, month of Publication). Article title. *Magazine Title,Volume*(Issue), pp.-pp.

Example:

Tumulty, K. (2006, April). Should they stay or should they go? *Time*, 167(15), 3-40.

Online Magazine:

Author, A.A.(Year, Month of Publication). Article title. *Magazine Title,Volume*(Issue), Retrieved from URL with date of access.

Example:

Tumulty, K. (2006, April). Should they stay or should they go? *Time*, 167(15) Retrieved from <http://content.time.com/time/magazine/article/0,9171,1179361,00.html>

Print Newspaper:

Author, A.A. (Year, Month Date of Publication). Article title. *Magazine Title*, pp. xx-xx.

Example:

Rosenberg, G. (1997, March 31). Electronic discovery proves an effective legal weapon. *The New York Times*, p. D5.

Online Newspaper:

Author, A.A. (Year, Month Date of Publication). Article title. *Newspaper Title*, Retrieved from newspaper homepage URL with date of access.

Example

Rosenberg, G. (1997, March 31). Electronic discovery proves an effective legal weapon. *The New York Times*, Retrieved from <http://www.nytimes.com>

Interview:

Author, A.A. (Year, Month Date). Interview type.

Example:

Marino, B. (2014, October 18). Personal Interview.

Online Lecture Notes or Presentation Slides

Author, A.A. (Publication Year). Name or title of lecture [file format]. Retrieved from URL with date of access.

Example:

Saito, T. (2012). Technology and me: A personal timeline of educational technology [PowerPoint slides]. Retrieved from <http://www.slideshare.net/Bclari25/educational-technology-ppt>

19. APPENDICES – Appendices are provided to give supplementary information, which if included in the main text may serve as a distraction to the central theme under discussion. An appendix in a thesis should contain important information that serves as additional explanation about the topic of research. Appendices should be marked with Roman capital numerals (**Appendix-I**, **Appendix-II**, **Appendix-III**.....) placed on the upper right hand corner of the page, bold, underlined and italicized. Separate appendices should be used for different type of data. The numbering on pages of appendices should be in continuation with the main chapters of the thesis using Arabic numerals. Appendices may include:

- Questionnaires, if any. The results should be presented in the body of the thesis.
- Descriptions of any tools and equipments used to obtain necessary results.
- Raw data collected during the course of research may also appears in appendices, while analyzed and summarized data is presented in the main body of the thesis.
- The list of publications made by the research scholar during the period of research should be brought in the Appendix titled **List of Publications** and the same shall be mentioned in the Table of Contents as a separate heading.

20. SUBMISSION OF THESIS: One spiral bound copy of thesis on the prescribed format along with one copy of summary and one soft copy on CD are to be submitted to the R&D Office for initial evaluation as per *Annexure-VI*. Subsequent to the comments from the Office of the Dean, R&D, the

revised thesis shall be submitted in 4 copies of Spiral bound thesis, 4 copies of spiral bound summary and one soft copy on CD in R&D Office. The CD must contain all parts/sections and chapters of the thesis in separate pdf file. A single pdf file of the thesis shall also be included in the CD.

21. FINAL SUBMISSION OF THESIS: After the viva-voce is successfully over, the candidate shall submit three hard bound copies, two CDs incorporating all the suggestions at Pre-Ph.D. and open viva voce stage. Out of three hard bound theses, one copy and a CD is to be submitted to Central Library by the candidate.

(A typical Specimen of Cover Page Text black, Logo Colored 1.5 Inches' H/1.54 Inches' W, New Times Roman)

<Bold><Capital><Center-aligned>

TITLE

<2.0 line spacing>

A Thesis

<2.0 line spacing>

Submitted

<2.0 line spacing>

In Partial Fulfillment of the Requirements

for the Degree of

<1.5 line spacing>

DOCTOR OF PHILOSOPHY

<1.5 line spacing>

In

<1.5 line spacing>

Subject

<1.5 line spacing>

Submitted by

<2.0 line spacing><Bold>

Name

↑2.0 line spacing



↑2.0 line spacing

Department of _____

<1.5 line spacing>

Faculty of _____

<2.0 line spacing><Bold><Capital>

INTEGRAL UNIVERSITY, LUCKNOW, INDIA

<2.0 line spacing>

Month, Year

(A typical Specimen of Declaration)

[On the Letter Head of the Department (Supervisor)]

CERTIFICATE

This is to certify that **Mr. /Mrs.** _____ (Enroll. No. _ _ _ _ _) has carried out the research work presented in the thesis titled “.....” submitted for partial fulfillment for the award of the **Degree of Doctor of Philosophy in** from **Integral University, Lucknow** under my supervision.

It is also certified that:

- (i) This thesis embodies the original work of the candidate and has not been earlier submitted elsewhere for the award of any degree/diploma/certificate.
- (ii) The candidate has worked under my supervision for the prescribed period.
- (iii) The thesis fulfills the requirements of the norms and standards prescribed by the University Grants Commission and Integral University, Lucknow, India.
- (iv) No published work (figure, data, table etc) has been reproduced in the thesis without express permission of the copyright owner(s).

Therefore, I deem this work fit and recommend for submission for the award of the aforesaid degree.

Signature of Supervisor

Full Name _____

Designation: _____

Address: _____

Date:

Place:

(A typical Specimen of Declaration)

[On the Letter Head of his/her affiliated Institution (Co-Supervisor)]

CERTIFICATE

This is to certify that **Mr. /Mrs.** _____ (Enroll. No. _ _ _ _ _) has carried out the research work presented in the thesis titled “.....” submitted for partial fulfillment for the award of the **Degree of Doctor of Philosophy in** from **Integral University, Lucknow.**

The work has been carried out under my co-supervision.

It is also certified that:

- (i) This thesis embodies the original work of the candidate and has not been earlier submitted elsewhere for the award of any degree/diploma/certificate.
- (ii) The candidate has worked under my supervision for the prescribed period.
- (iii) The thesis fulfills the requirements of the norms and standards prescribed by the University Grants Commission and Integral University, Lucknow, India.
- (iv) No published work (figure, data, table etc) has been reproduced in the thesis without express permission of the copyright owner(s).

Therefore, I deem this work fit and recommend for submission for the award of the aforesaid degree.

Signature of Co-Supervisor

Full Name _____

Designation: _____

Address _____

Date :

Place :

(A typical Specimen of Declaration)

DECLARATION

I hereby declare that the thesis titled “ _____ ” is an authentic record of the research work carried out by me under the supervision of Dr. _____, Department of _____, for the period from _____ to _____ at Integral University, Lucknow. No part of this thesis has been presented elsewhere for any other degree or diploma earlier.

I declare that I have faithfully acknowledged and referred to the works of other researchers wherever their published works have been cited in the thesis. I further certify that I have not willfully taken other's work, para, text, data, results, tables, figures etc. reported in the journals, books, magazines, reports, dissertations, theses, etc., or available at web-sites without their permission, and have not included those in this Ph.D. thesis citing as my own work.

Date:

Signature _____

Name _____

Enroll. No. _____

(A typical Specimen of Copyright Transfer Certificate)

COPYRIGHT TRANSFER CERTIFICATE

Title of the Thesis:

Candidate Name:

The undersigned hereby assigns to Integral University all rights under copyright that may exist in and for the above thesis, authored by the undersigned and submitted to the University for the award of the Ph.D. degree.

The Candidate may reproduce or authorize others to reproduce material extracted verbatim from the thesis or derivative of the thesis for personal and/or publication purpose(s) provided that the source and the University's copyright notices are indicated.

Signature of Candidate

TABLE OF CONTENTS*(Font-Times New Roman, Size-12)*

| Contents | Page No. |
|---|-----------------|
| Title Page..... | (i) |
| Certificate/s (Supervisor)..... | (ii) |
| Certificate/s (Co-Supervisor)..... | (iii) |
| Declaration..... | (iv) |
| Copyright Transfer Certificate..... | (v) |
| Acknowledgment..... | (vi) - (vii) |
| List of Tables..... | (viii) – (x) |
| List of Figures..... | (x) – (xv) |
| List of Symbols and Abbreviations, Nomenclature etc..... | (xvi) – (xvii) |
| Abstract..... | (xviii) |
| Chapter-1 Designing of pipeline software for exogenous drug target identification | |
| 1.1 Introduction..... | 01-15 |
| 1.2 Review of Literature | 16-60 |
| 1.3 Hypothesis, Aims and Objectives..... | 61-63 |
| Chapter-2 Prediction of essential proteins in prokaryotes using support vector machine algorithm | |
| 2.1 Introduction..... | 64-80 |
| 2.2 Materials and Methods..... | 81-100 |
| 2.2.1 Materials..... | 101-110 |
| 2.2.2 Protein Database..... | 111-130 |
| 2.3 Results..... | 131-150 |
| 2.4 Discussion..... | 151-175 |
| 2.5 Conclusion(s)..... | 176-180 |
| Bibliography..... | 181-220 |
| Appendices..... | 221-230 |
| List of Publications..... | 231-260 |

CHAPTER – 1

INTRODUCTION

1.1 Integral University

Integral university, integral university, integral university,
Integral university, integral university, integral university

1.1.1 Faculty of Science

Faculty of Science, Faculty of Science
Faculty of Science, Faculty of Science

1.1.1.1 *Department of Mathematics*

Department of mathematics, department of mathematics,
Department of mathematics, department of mathematics,

1.1.1.2 *Department of Languages*

Department of languages, department of languages,
Department of languages, department of languages,

1.1.2 Faculty of Architecture

Faculty of architecture, faculty of architecture,
Faculty of architecture, faculty of architecture,



INTEGRAL UNIVERSITY, LUCKNOW
(Ph.D. Thesis Submission Form)

1. Name of Candidate :
2. Department :
3. Faculty :
4. Enrollment No. & Date of Registration :
5. Name of Supervisor:
6. Name of Co-Supervisor(s), if any:.....
7. Title of the Thesis:
8. No. of research paper(s) published (Attach copies of complete publications):
9. I undertake that the remaining research work of thesis will be published within a period of 1 year with the due credit to the Integral University and its Supervisor(s)
10. I certify that no figures/tables have been reproduced in the thesis without permission from the respective copyright owners.
11. I hereby submit 1 copy each of the spiral bound thesis, summary & a soft copy of the thesis on CD.

Date: _____ **Signature of the Candidate** _____

12. Recommendation (Boxes not to be left empty. Either tick or cross the boxes.)
- Certified that all necessary approved objectives have been completed.
 - Recommended for Thesis Submission.
 - Certified that no figures/tables have been used in the thesis without permission from the respective copyright owners.

Signature _____ **Signature**
Co-Supervisor(s) _____ **Supervisor** _____

Signature _____ **Signature**
Head of the Department _____ **Dean** _____

Research and Development Office

- Course Work Status
.....
- Last RDC comments
.....
- Plagiarism check
.....
- English Language
.....

Comments of RDC Chairman:-
.....

Date: _____ **Signature**
_____ **RDC Chairman** _____