GENERAL INSTRUCTIONS

1. The entire thesis should be **no more than fifty pages** with double spacing of text (for hardcopy, print on both sides of the paper). Use TimesNewRoman font at a size 12 for the body text. Headings can be TimesNewRoman 13-bold, sub-headings 12-bold and further headings 12-italicized.

2. It is important to follow the formats (font size, alignment, line spacing etc). Pay special attention to the front page of the thesis and headers.

3. Write using either US English or UK English, but not both. Before submitting the thesis, do a thorough spelling and grammar check.

4. Perform a plagiarism check (**plagiarism is defined as copying four or more consecutive words from another's writing**). One way to check if text/wording has been plagiarized is to search for the same in Google using double quotes. Using Grammarly or other tools to improve sentence construction is also encouraged.

5. Create the cover page **separately** (with all the details mentioned below, without a page number).

6. All subsequent pages after the cover page should be serially numbered.

7. Use correct scientific names of organisms, when available and appropriate. *Italicize* all scientific names and capitalize appropriately.

NOTES

1. In any thesis (or manuscript), the last things to be finalized are the abstract and references. It is recommended that some (or most) parts of the introduction (and materials and methods) are completed before the end of April 2024, and results and discussion are written in 'real time' (*i.e.*, as the work is being conducted and results/data are being collected/gathered).

2. The hard and/or soft copy of the final thesis needs to be ready for submission on or before **Tuesday 4th June 2024**. It is expected that each student delivers the first draft of the thesis to his/her supervisor 10 days before the poster presentation scheduled from 27th May i.e. by 20th May, 2024. This will provide ample time for any revisions/corrections.

{Title of the thesis or project}

submitted by

{**Name of the student** (roll number)}

to

Institute of Bioinformatics and Applied Biotechnology

in partial fulfillment of the requirements for

Master of Science in Biotechnology and Bioinformatics

(degree awarded by **Bangalore University**, Bengaluru)

under the guidance of

{**name of the guide/supervisor**}

{Include the name of co-supervisor, if any, in the next line}

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Biotech Park, Electronic City Phase I

Bengaluru - 560100

DECLARATION BY THE STUDENT

I hereby declare that the thesis "<---------- Title---------->" is a bonafide and genuine research work carried out by me, between .....START DATE..... and ...END DATE..... at IBAB, Bengaluru, under the guidance of {Name and Designation of the Supervisor}. Add a 2nd supervisor's name, if applicable.

Date : {Signature of the Candidate}

Place: {Name of the Candidate}

CERTIFICATE BY THE SUPERVISOR

This is to certify that the thesis “<---------- Title----------> " represents research work done by {Name of the Candidate} in partial fulfillment of the requirements for MSc in Biotechnology and Bioinformatics at IBAB, Bengaluru, under my/our guidance.

Date : {Signature of the Supervisor}

Place: {Name of the Supervisor}

{Signature of the co-supervisor}

{Include the name of co-supervisor, if any, in the next line}

ACKNOWLEDGMENTS

(Not more than one page, double spaced)

In every thesis, the following acknowledgment must be there in addition to your write-up:

This work was partially supported by the Department of Electronics, IT, BT, and S&T of the Government of Karnataka.

Further, if funding from any other agency has supported the work, then that should also be acknowledged.

ABBREVIATIONS

(Not more than one page, double spaced)

ABSTRACT

(Max. 300 words, double spaced)

The abstract should provide the **background** (rationale and/or objectives of the study), **methods** (resources and parameters used the study), **results** (major outcomes and their brief interpretation), and **conclusion** (summarize the results and provide future perspectives, if appropriate). The abstract can be written with or without the headings shown in bold (*i.e.*, the abstract can be structured or unstructured).

Keywords or phrases (Max. 10)

TABLE OF CONTENTS

Subsections under sections/headings 2, 3, and 4 can be included in the ToC. If you wish, use the 'Insert Table of Contents' command. That will make it easier to make the Table of Contents, and to navigate within the document.

A list of figures and tables should be included AFTER the ToC.

1. Starting from this page, insert page numbers at the 'bottom centre'
use the 'page x'/'total pages y' FORMAT (for example 1/50)

2. Starting from this page, set the page margins to 'Mirrored'

1. INTRODUCTION

(Max. 3000 words, double spaced)

Should highlight the purpose of the study, in the context of earlier work, and present thinking in the field. Extensive review of literature is not recommended. Points to consider while writing the introduction are: significance of the broad area of study, background, and rationale. Definitions of concepts and terms could be included, as are figures that help put the work in context. It may be convenient to start with a review of the topic, before narrating the problem statement or hypothesis to be tested (= objectives).

(Each paragraph should be 'indented' as shown above)

2. MATERIALS AND METHODS

(Max. 3000 words, double spaced)

Provide sufficient details about all the materials (e.g., reagents, strains, cultures, animals, sequences, primers, databases.....) including the kits and manufacturers/vendors.

If you are using a published procedure, describe the same briefly and provide the correct reference or source. If modifications to previous methods or procedures were made, the same should be described in detail. If the work developed new methods, procedures or reagents, they should be described in sufficient detail.

It is important to provide sufficient details in this section so that those interested can reproduce the work.

If appropriate, and when feasible, a schematic representation, using a colored figure, could be used to summarize the overall study/plan. This representation can serve as a supplement to the text, and cannot be a replacement for it.

(Each paragraph should be 'indented' as shown above)

3. RESULTS

(Max. 3000 words, double spaced)

Only results/data obtained using the materials and methods described earlier should be reported/presented.

The goal here is to describe and interpret the results/data, and help the reader understand the same (*i.e.*, what are the results, and what do they mean). Descriptions that are verbose, and/or very elaborate, are not recommended. Excessive speculations, and interpretations that are far-fetched, should be avoided, as are results/data that are not in context with the stated objectives. The results are preferably written in the past tense (use *was* and *were*, instead of *is* and *are*).

Remember to include images, tables, and graphs that support the results/data being described. All images, tables, and graphs should be embedded in the text where they are being described, or as close to it as possible. Figure legends (and footnotes within tables) must be self-explanatory. Similarly, chemical equations, mathematical derivations, and/or structural formulae should be placed close to the relevant text.

Instead of describing what may be obvious in the images, tables, and graphs, strive to describe what is non-obvious (and interpret both the obvious and the non-obvious). Do not include images, tables, and graphs that have not been referred to/cited in the main text.

(Each paragraph should be 'indented' as shown above)

4. DISCUSSION

(Max. 1500 words, double spaced)

Results and Discussion sections MAY BE combined, when appropriate and feasible. When these sections are combined, the maximum word limit is 4500, double spaced. The 'discussion', when written separately or combined with the results, is not meant for describing or interpreting the results. It should provide a balanced and logical perspective of the results (in light of previous findings, if available). A well-written discussion will contextualize each result/set of data, especially when similar/related findings from the past are available. The impact of the present data/results on work in the same or related areas could be narrated, along with ongoing studies or future prospects. The limitations of the approach (in the context of materials and methods) and outcomes (in the context of data/results) could also be included. Discussions that are unnecessarily verbose are not warranted.

(Each paragraph should be 'indented' as shown above)

5. CONCLUSIONS

(Maximum 500 words, double spaced)

Meaningful conclusions about the results (or key findings) from the work can be provided in the form of a paragraph or bullet points. This section may also summarize the potential impact of the results or key findings, along with future directions and/or perspectives. Conclusions could be merged into the Results and Discussion section (or the Discussion section, when written separately) **with or without a title/subheading**, towards the end. The 500 word limit should be followed for the Conclusions section, even if it is merged with Results/Discussion

(Each paragraph should be 'indented' as shown above)

6. REFERENCES

(limit the total number of references to 50, double spaced)

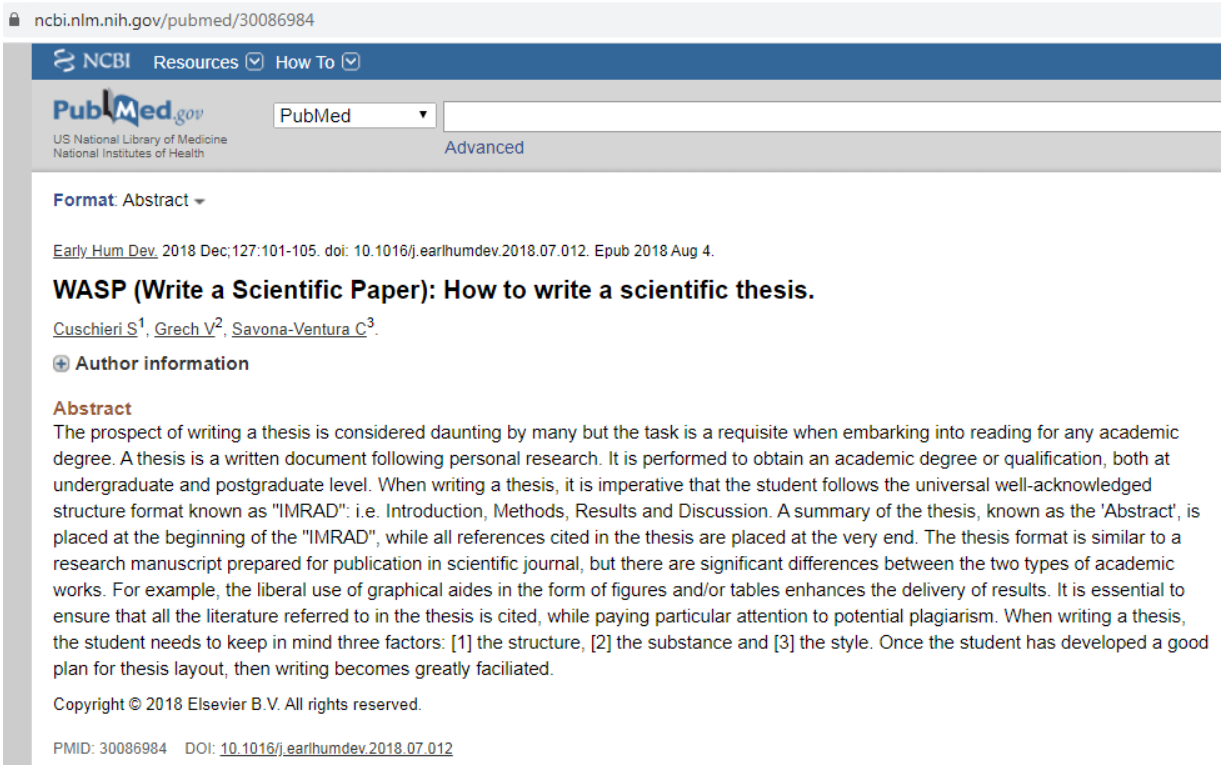
In the text (Introduction, Materials and Methods, Results and Discussion), references must be cited in square brackets using the formats shown below:

[King, 2000]	For single author references
[King and Queen, 2010]	For references with only two authors
[Queen *et al*., 2020]	For references with more than two authors

If more than one reference is cited, use a semi-colon (;) between two references.

Bibliographies can be conveniently obtained using the 'Summary (text)' option in PubMed.

An example is shown below:



Click the drop-down menu next to 'Abstract' on the top left corner.

Choose the 'Summary (text)' option, which will produce an output that can be 'copy-pasted' (and modified) as below:

Cuschieri S, Grech V, Savona-Ventura C. WASP (Write a Scientific Paper): How to write a scientific thesis. *Early Hum Dev* 2018 127:101–105. doi:10.1016/j.earlhumdev.2018.07.012.

LIST the references (that were cited in the text) by arranging them alphabetically, using the last name of the first author.

For references with more than three authors, the names of **only the first THREE** authors should be provided, with an *et al*. at the end of the name of the third author.

Provide the DOI number for each reference, when available.

Preprints may also be cited and included in the list of references. **It is especially important to provide a DOI number when preprints are cited.**

Links to websites or other electronic material or databases can be providing by citing the URL directly in the text as shown in this example [http://mvp.medgenius.info/].

Free reference managers like **Mendeley [www.mendeley.com/],** or **Zotero [www.zotero.org] could also be used to automatically generate bibliographies.**

EXAMPLES for listing various types of references are shown below:

JOURNAL PAPER:

Yu Q, Schaub P, Ghisla S *et al*. The lycopene cyclase CrtY from *Pantoea ananatis* (formerly *Erwinia uredovora*) catalyzes an FADred-dependent non-redox reaction. *J Biol Chem* 2010;285:12109–12120. doi: 10.1074/jbc.M109.091843

BOOK CHAPTER:

Swingley WD, Blankenship RE, Raymond J. Evolutionary relationships among purple photosynthetic bacteria and the origin of proteobacterial photosynthetic systems. In: Hunter CN, Daldal F, Thurnauer MC and Beatty JT (editors). *The Purple Phototrophic Bacteria*. New York: Springer; 2009. pp. 17–29. doi: 10.1007/978-1-4020-8815-5_2

BOOK:

Taller BJ. Distribution, biosynthesis, and function of cytokinins in tRNA. In: Mok DWS and Mok MC (editors). *Cytokinins: Chemistry, Activity and Function*. Boca Raton, FL: CRC Press; 1994. pp. 101–112.

DATASET:

Archer CR, Enslow BT, Taylor AB *et al.* Crystal structure of the Ca^{2+}/CaM complex with independent peptides of Kv7.4 (KCNQ4) A & B domains. *Protein Data Bank* 2019;6N5W.

doi: 10.2210/pdb6N5W/pdb

PREPRINT:

Chen JJ, Nathaniel DL, Raghavan P *et al.* Compromised function of an ESCRT complex promotes endolysosomal escape of tau seeds and propagation of tau aggregation. *bioRxiv* 2019.

doi: 10.1101/637785

The **bibliographies** should have the same original *annotations* as in the title.

An example is given below:

"Reciprocal regulation of Gs alpha by palmitate and the beta gamma subunit" [INCORRECT]

Vs

"Reciprocal regulation of Gsα by palmitate and the βγ subunit" [CORRECT]

Poster Guidelines

1. The Viva Voce will be conducted as poster sessions on the 27th and 28th of May, 2024.
2. Recommended poster size is 36” width x 48” height (inches). Please prepare your posters using appropriate templates, in ppt, or other graphic design software tools.
3. Poster printing will be coordinated by Mr. Khan. The poster file should be uploaded to the shared drive folder (link given below) no later than **1.00 pm, Friday 24th May 2024**. The printers will require about 1 day to send the printed posters to IBAB. Anyone who fails to upload the final poster by that time will have to print it on his/her own. IBAB will not sponsor those prints.
4. Each poster should be mounted on the allotted posterboard before 9.00 am on 27th May.
5. A poster can have multiple authors. The maximum number of students presenting a single poster (as presenting authors) will be limited to three. It should be clearly described which author did which part of the work presented in the poster. If this is not mentioned, the evaluations will have disparity.
6. A student will be evaluated for one poster presentation work only, even if the student presents parts of more than one poster.

7. From the IT Policy: Any software or files downloaded into the local network may be used only in ways that are consistent with their licenses or copyrights. For every software that you use, it is mandatory that you buy a proper license. Using hacked/cracked version of any software is a criminal offense and will be liable for legal proceedings. Care must be taken about using demo software tools as well. Inform the IT manager before using any new software.

Folder to upload your posters: [will be shared later]

In case you do not have write permissions, send a request using your Gmail id.