



In writing your manuscripts observe the following guidelines:

## A. Margins

Top 1.0 inch Bottom 1.0 inch Right 1.0 inch Left 1.25 inches

## B. Font

The font type of all the text is Times New Roman (TNR) size 12 unless otherwise specified.

## C. Pagination

- ✓ Pages with titles of major sections the page number is written half inch from the bottom, center page.
- ✓ Pages with no titles of major sections the page number is written on the upper right corner, half inch from the top, one inch from the right.

## D. Title Page

**5-single spaces from the top margin; space before: 0 pt; space after: 0 pt; TNR, 12**

**Title**  
(centered, Times New Roman, size 20, bold font style)

**8-single spaces; space before: 0 pt; space after: 0 pt; TNR, 12**

by  
(centered, Times New Roman, size 14, regular font style)

**1-single space; space before: 0 pt; space after: 0 pt**

**First Name Middle Initial Surname**  
(centered, Times New Roman, size 16, bold font style)

Undergraduate Degree Obtained  
University, Year  
(centered, Times New Roman, size 14, regular font style)

**7-single spaces; space before: 0 pt; space after: 0 pt; TNR, 12**

A Thesis Report Submitted to the School of Graduate Studies  
in Partial Fulfilment of the Requirements for the Degree  
**1-single space; space before: 0 pt; space after: 0 pt; TNR, 12**

Master of Engineering Program  
Major  
(centered, Times New Roman, size 14, regular font style, single space)

**6-single spaces; space before: 0 pt; space after: 0 pt; TNR, 12**

Mapúa Institute of Technology  
(centered, Times New Roman, size 14, regular font style, single space)

Month Year  
(centered, Times New Roman, size 14, regular font style)

## E. Approval Sheet



**APPROVAL SHEET**

(centered, Times New Roman, size 12, bold font style)

**(Line spacing: double; space before: 0 pt; space after: 0 pt)**

This is to certify that we have supervised the preparation of and read the practicum paper prepared by **Name of the student (FN MI. SN)** entitled **Title of the Study** and that the said paper has been submitted for final examination by the Oral Examination Committee.

(justified, single space, Times New Roman, size 12, regular font style except for the name of the student and the title of the study)

**(Line spacing: 2-double; space before: auto; space after: auto)**

<b>Firstname M. Last name</b>	LS: Single; Before: Auto; After: 0 pt	<b>Firstname M. Last name</b>
Academe Adviser	LS: Single; Before: 0 pt; After: 0 pt	Industry Adviser

**(Line spacing: 2-double; space before: auto; space after: auto)**

As members of the Oral Examination Committee, we certify that we have examined this paper and hereby recommend that it be accepted as fulfillment of the practicum requirement for the Degree **Master of Engineering (major)**.

**(Line spacing: double; space before: auto; space after: auto)**

<b>Firstname M. Last name</b>	LS: Single; Before: Auto; After: 0 pt	<b>Firstname M. Last name</b>
Panel Member 1	LS: Single; Before: 0 pt; After: 0 pt	Panel Member 2
	LS: Single; Before: Auto; After: Auto	
	LS: Single; Before: Auto; After: Auto	
	<b>Firstname M. Last name</b>	LS: Single; Before: Auto; After: 0 pt
	Committee Chair	LS: Single; Before: 0 pt; After: 0 pt

**(Line spacing: double; space before: auto; space after: auto)**

This practicum paper is hereby approved and accepted by the School of Graduate Studies as fulfillment of the practicum requirement for the Degree **Master of Engineering (major)**.

**(Line spacing: triple; space before: auto; space after: auto)**

<b>Jonathan W. L. Salvacion</b>
Dean, School of Graduate Studies

(Spacing for this table is the same as above)

**Note:** For Tables in the approval sheet, only the lines above the names of advisers, panelists, and dean are visible.

**F. Table of Contents**



## TABLE OF CONTENTS

(centered, Times New Roman, size 12, bold font style)  
(Line spacing: double; space before: 0 pt; space after: 0 pt)

TITLE PAGE	i
APPROVAL PAGE	ii
ACKNOWLEDGEMENT	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	v
LIST OF FIGURES	vi
ABSTRACT	vii
Chapter 1: INTRODUCTION	1
Chapter 2: REVIEW OF RELATED LITERATURE	2
Heading 1	3
Heading 3 ...	4
Chapter 3: TITLE OF A MAJOR ASPECT OF STUDY	5
Abstract	6
Introduction	7
Methodology	11
Heading 1	12
Heading 2 ...	13
Results and Discussion	14
Heading 1	15
Heading 2 ...	16
Conclusion	17
References	18
Chapter 4: CONCLUSION	19
Chapter 5: RECOMMENDATION	20
REFERENCES	21
APPENDICES	22

### G. List of Tables, Figures, etc.



<b>LIST OF TABLES</b>	
(Centered, Times New Roman, size 12, bold font style)	
<b>(Line spacing: double; space before: 0 pt; space after: 0 pt)</b>	
Table 1.1: Title ...	36
Table 1.2: Title ...	37
Table 2.1: Title ...	55
Table 2.2: Title ...	67

<b>LIST OF FIGURES</b>	
(Centered, Times New Roman, size 12, bold font style)	
<b>(Line spacing: double; space before: 0 pt; space after: 0 pt)</b>	
Figure 1.1: Title ...	16
Figure 1.2: Title ...	23
Figure 2.1: Title ...	24
Figure 2.2: Title ...	27

**H. Abstract**

All capitalized, bold font style, center page alignment

**Line Spacing:**

Abstract	Double	Spacing before: Auto	Spacing after: Auto
Body	Single	Spacing before: 0 pt	Spacing After: 0 pt

The abstract gives the reader an overview of the study, based on information from the other sections of the report. The information given in the abstract is usually the basis of many readers as to whether they will read the entire report or not. The abstract is one paragraph of about 100-200 words.

The typical information elements included in an abstract are as follows:

1. Some background or general information on the study
2. The main topic (or purpose) of the study and its scope
3. Some information on how the study was conducted (or the methodology used in the study)
4. The most important findings of the study
5. A statement of conclusion (justified based on the data presented).

Space between the body and the word “keyword”: 2-single spaces 0 pt before and after

**Keywords (maximum of five):** first key word, second key word, ..., fifth keyword

**Note:** Each key word is separated by a comma



## I. Body of the Manuscript

Chapter 1  
(Capitalized the first letter only, bold font style, center page)  
TITLE  
(FIRST LEVEL HEADING, bold face, center page)

Example:

### Chapter I

#### INTRODUCTION

Line spacing: double space

Spacing before: 0 pt                      Spacing After: 0 pt

Paragraph indentation: 1.50 cm

Alignment: justified.

Line spacing between the first level heading and the body: 1-double space; 0 pt before and after

Line spacing in the body: double space; 0 pt before and after

No extra space will be given after the last sentence and another paragraph

Two spaces between period and another sentence

#### Content of Introduction\*\*\*

The introduction gives an overview of the thesis / practicum or research report, giving the reader background or basis of the problem to be reported. It can be divided into six parts, as follows:

1. The setting or context or frame of reference  
This part gives general statement(s) about a field of research to provide the reader with a preview of the problem to be reported.
2. The review of previous research  
This part continues the contextual setting or frame of reference given in Part 1 by including more statements about the general aspects of the problem already investigated by other researchers.
3. The gap or missing information  
This part refers to the statement(s) that indicate the need for the study or the need for more investigation.
4. The statement of purpose  
This part gives very specific statement(s) pertaining to the objective(s) of the study.
5. The statement of value  
This part refers to statement(s) that give the significance of carrying out the study.
6. The scope and delimitation  
This part indicates what the study covers and what it does not or fails to cover.

**\*\*\*NOTE: The introduction is written continuously paragraph by paragraph, i.e., without any heading.**

**For Chapter 2: REVIEW OF RELATED LITTERATURE** that may contain sub-sublevel headings one must follow the following style:

### Chapter 2

#### REVIEW OF RELATED LITERATURE



### <Second Level Heading>

Only the first letters are capitalized except for articles and prepositions, bold font style, left justified alignment.

### <Third level heading>

Only the first letter of the first word is capitalized, bold font style, left justified alignment.

### <Fourth Level Heading>

Only the first letters are capitalized except for articles and prepositions, regular font style, left justified alignment.

### <Fifth Level Heading>

Only the first letters are capitalized except for articles and prepositions, regular font style, underlined, left justified alignment.

#### Line spacing:

- |                 |              |                       |                     |
|-----------------|--------------|-----------------------|---------------------|
| ✓ First heading | double space | Spacing before: Auto  | Spacing after: Auto |
| ✓ Body          | double space | Spacing before: 0 pt  | Spacing after: 0 pt |
| ✓ Next heading  | double space | Spacing before: 30 pt | Spacing after: Auto |
| ✓ Body          | double space | Spacing before: 0 pt  | Spacing after: 0 pt |

#### For the body:

- ✓ Only the first sentence of the paragraph is indented by 1.50 cm.
- ✓ The alignment is justified.
- ✓ Two spaces between period and another sentence.
- ✓ No extra space will be given after the last sentence and another paragraph

### Content of Review of Related Literature

The review of literature is basically an evaluated, organized, and synthesized collection of citations to other studies (NOT a MERE listing of previous studies), which are related or somewhat related to your own specific research problem. It serves three important functions.

1. It continues the process started in the introduction of giving the readers background information needed to understand your study.
2. It assures the readers that you are knowledgeable about the significant research that has been done in your area of investigation.
3. It establishes your study as one link in a chain of research that is developing and enlarging knowledge in your field of research interest.

#### The role of literature review is as follows:

1. It will increase your confidence in your topic as a result of the time, effort, and resources you invested in studying your research problem.
2. It can give you new ideas and approaches that may not have occurred to you.
3. It can inform you about other researchers doing work in your area of study—individuals whom you may choose to contact for advice or feedback.
4. It can show you how others have tackled methodological and design issues in studies similar to your own.
5. It can lead you to sources of data that you may not have known existed.



6. It can orient you to measurement tools that other researchers have developed and used effectively.
7. It can reveal methods dealing with problem situations that may be similar to difficulties you are having.
8. It can help you get meaning out of your data or make sense of your findings and, eventually, help you tie your results to the work of previous researchers.

Ways to cite references in review of related literature:

All references must be stated in the review of literature; no report will be accepted without the proper acknowledgement to the authors referred to in the literature review.

The format of reference for nonverbatim statements is as follows:

- a) Author stated in year that biosorption of cationic ...
- b) Author stated that biosorption of cationic ... (year).
- c) It has been said that biosorption of cationic ... (Author, year).

**NOTE: Internet references should NOT be included.**

**For Chapter 3: JOURNAL**

This chapter represents a major aspect of your study written in article format. It should be able to stand alone as an article if published in a referred journal. The format of the chapter is as follows:

**Chapter 3**

**<TITLE OF A MAJOR ASPECT OF THE STUDY>**

**Abstract**

Only the first letter is capitalized, bold font style, left justified alignment

Content:

This section is the abstract for the title of a major aspect of your study. It follows the same format as the abstract of your study as a whole.

Line Spacing:

Abstract	Double	Spacing before: Auto	Spacing after 30 pt
Body	Single	Spacing before: 0 pt	Spacing After: 0 pt

Space between the body and the word "keyword": 2-single spaces 0 pt before and after

**Keywords (maximum of five):** first key word, second key word, ..., fifth keyword

**Note:** Each key word is separated by a comma

Line spacing:

Double	Spacing before: 30 pt	Spacing after Auto
--------	-----------------------	--------------------

**Introduction**



### <Second Level Heading>

This section is the introduction for the title of a major aspect of your study. It follows the same format as the introduction to your study as a whole.

### **Methodology**

#### <Second Level Heading>

This section describes the procedural steps used in conducting this major aspect of your study and the materials or any equipment used at each step. It includes all mathematical treatment of data as well as equations or models used. It is useful to readers who want to know how the methodology of your study may have influenced your results. The procedure should be stated in as much detail as possible so that readers who are interested in replicating or extending your study could follow the steps as they read your work. Schematic diagram (properly labeled and numbered) must accompany the text whenever possible.

### **Results and Discussion**

#### <Second Level Heading>

This section presents the data collected from the study on this major aspect of your research problem, followed by extensive comments on or interpretation of the findings of the study

### **Conclusion**

#### <Second Level Heading>

This section addresses the objective(s) pertaining to the major aspect of your research problem.

### **References**

#### <Second Level Heading>

**For References and Bibliography** one must follow the following guidelines and must be listed in alphabetical order:

#### <For journals>

Author, A.A., B. B. Author and C. C. Author (year). Full title of article. *Name of the journal*, Volume **number** (number), pages.

Author, A.A., et al, (year). Full title of article. *Name of the journal*, Volume **number** (number), pages.

Author, A. A. (year). Full title of article. *Name of the journal*, Volume **number** (number), pages.

#### Examples:

Caparanga, A. R. (2000). Recycling and recovery of Poly(ethylene terephthalate) from post consumer waste stream, *e-merge: the MIT Review*, Volume **1** (1), 27-32.

Cardiel, G. G., et al, (2000). Preliminary engineering geological-geotechnical and instability risk assessment of slopes at Peace Village, Barangay San Luis, Antipolo, Rizal. *Mapua Research Journal*, Volume **1** (2), 79-84.





Doma, B. Jr. T., J. L. Salvacion and S.T. Yang (2000). Mass transfer and power consumption characteristics in rotating fibrous bed bioreactor for xanthan gum fermentation. *Mapua Research Journal*, Volume 1 (1), 27-41.

**<Books>**

Author, A. A., B. B. Author and C. C. Author (year). Full title of article<optional> Editor, A. A.<optional>. Book Title, edition, Publisher, Place of Publication.

Example:

Scilling, R. J. and S. L. Harris (2000). *Applied Numerical Methods for Engineers*, 1<sup>st</sup> edition, Brooks/Cole, New York.

Note: Internet references should **NOT** be included.

**NOTE: For another major aspect of your research problem, a separate chapter of the same format follows this chapter**

**For Chapter 4: CONCLUSION**

This chapter gives the overall conclusion of the study, which addresses the objective(s) of your research problem. Here, you step back and take a broad look at your findings and your study as a whole.

**Chapter 4**

**CONCLUSION**

**For Chapter 5: RECCOMENDATION**

This chapter indicates statements that suggest the need for further studies—what else can be done relevant to your research problem and what other related problems should be addressed?

**Chapter 5**

**RECOMMENDATION**

**J. Illustrations**

For Tables label it this way:

Table No.	Title
Label	Label
Data	Data
Data	Data

Table No.	bold font style	Title	regular font style
Thick line	1.5 pt	Thin line	1.0 pt
Line spacing:	Single	Space before: 0 pt	Space after: 0 pt



For graphs, figures, illustrations:

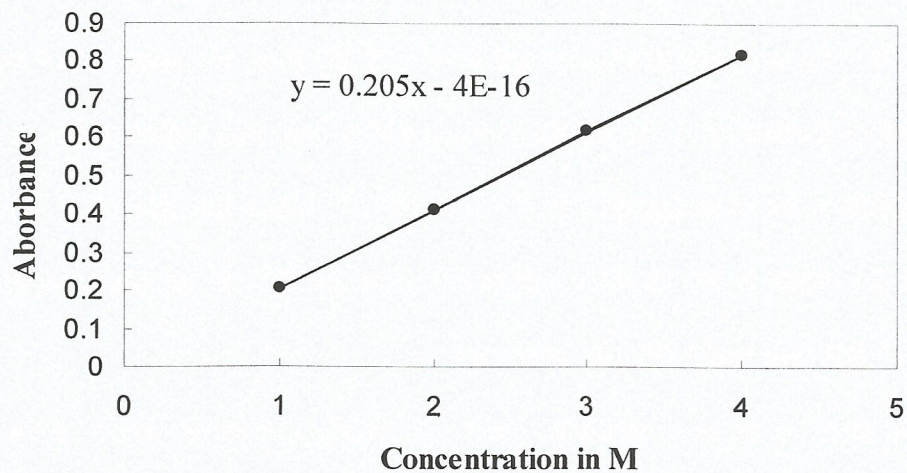


Figure No. Title

Properties:

- ✓ If label is necessary place it inside the plot area.
- ✓ No fill effects
- ✓ No outer border
- ✓ Inside tick
- ✓ Smooth lines
- ✓ No triangles or diamonds
- ✓ Title at the bottom of the graph

For reactions:

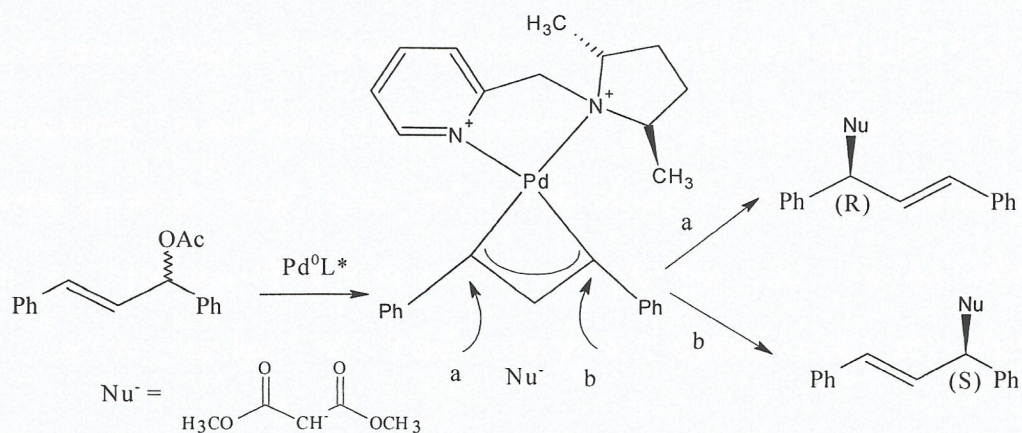


Figure No. Title



### For Equations:

Number the equations in this manner:

$$x + y = 12 \quad (1.1)$$

The first number denotes the chapter and the second number denotes the number of equation in that chapter. The equation number must be right justified and must be written in Times New Roman 12 bold font style.

### For illustrations with sources:

The source of the photo or illustration must be given in this manner:

Source: Author, Year (must be aligned with the label)

### For instruments used in the experimentation:

Name of the instrument (Model/Brand, Supplier, Place)

## K. Appendices

- ✓ The word Appendices is all capitalized, bold font style, center of page, included in the numbering but not numbered.
- ✓ Name each appendix as A, B, C, etc.
- ✓ Write the title of the appendix using Second Level Heading.

Example:

### APPENDIX A

(FIRST LEVEL HEADING, bold face, center page)

#### List of Basis Set for DFT

(Second Level Heading, bold face, center page)

- ✓ For appendix having a landscape format place the pagination on the lower right corner.

## L. Book Binding

SURNAME

Title of the Paper

Mapúa Year

- ✓ Distance between lines (gold) is approximately 1mm
- ✓ For uniformity the binding will be done at the Mapúa bookstore
- ✓ The cover page has the following format:



TITLE

First Name Middle Initial Surname

School of Graduate Studies  
Mapúa Institute of Technology

Month Year