### अनुसूची- २

# General Guidelines for Project Work (PRO 406) Format

It is a mandatory to maintain the uniformity in the format of the Project Work (PRO-406) carried out by B.Sc. IV year students in different departments of several campuses under Institute of Science and Technology (IoST), Tribhuvan University, Nepal.

#### The format of the Project Work included the following headings/items:

- i. Cover Page
- ii. Board of Examination and Certificate of Approval
- iii. Letter of Forward
- iv. Recommendation
- v. Declaration
- vi. Acknowledgements
- vii. Abstract
- viii. List of Acronyms and Abbreviations
- ix. List of Symbols
- x. List of Tables
- xi. List of Figures
- xii. Table of Contents
- 1. Chapter 1: Introduction
- 2. Chapter 2: Literature Review
- 3. Chapter 3: Materials and Methods
- 4. Chapter 4: Result and Discussions
- 5. Chapter 5: Conclusions and Recommendations
- 6. Reference
- 7. Appendix

#### The details of these headings/items are given



(Format for cover page)

# [TITLE OF THE PROJECT WORK]

(Comment: Center, All caps, Bold, Font size 16)



#### A PROJECT WORK SUBMITTED TO THE

(Comment: Center, All caps, not bold, Font size 14)

DEPARTMENT OF ... (Name of Department) ....
...(Name of campus)..... CAMPUS
INSTITUTE OF SCIENCE AND TECHNOLOGY
TRIBHUVAN UNIVERSITY
NEPAL

(Comment: Center, All caps, Bold, Font size 14)

# FOR THE AWARD OF BACHELOR OF SCIENCE (B.Sc.) IN ... (Name of subject)....

(Comment: Center, All caps, Bold, Font size 14)

BY

(Comment: Center, All caps, not bold, Font size 14)

[FULL NAME OF THE STUDENT]
SYMBOL No....
T.U. REGISTRATION No....

(Comment: Center, All caps, Bold, Font size 14

[MONTH, YEAR]

(Comment: Center, All caps, Bold, Font size 14)

## RECOMMENDATION

(Comment: Center, All caps, Bold, Font size 16)

This is to recommend that (Name of student, bold faced letter), (Symbol No, T.U.
Registration No), has carried out project work entitled "(Title, bold faced letter)" for the
requirement to the project work in Bachelor of Science (B.Sc.) degree in(Name of subject)
under my/our supervision in the Department of (Name of department),(Name of
Campus/Institute) Campus, Institute of Science and Technology (IoST), Tribhuvan University (T.U.),
Nepal.

To my/our knowledge, this work has not been submitted for any other degree.

He/She has fulfilled all the requirements laid down by the Institute of Science and Technology (IoST), Tribhuvan University (T.U.), Nepal for the submission of the project work for the partial fulfillment of Bachelor of Science (B.Sc.) degree.

(Comment: Times New Roman, Font size 12)

.... (Name) ....
Supervisor
Department:
Campus / Institute

Campus/Institute: University:

.... (Name) .... Co-Supervisor

Department: Campus/Institute:

University:

अविध अध्यक्ष हैं अने को कार्यांका भारतिपर २०-४%

[DAY, MONTH, YEAR]

## **DECLARATION**

(Comment: Center, All caps, Bold, Font size 16)

This project work entitled "... (Title, bold faced letter) ....." is being submitted to the Department of ... (Name of department)...., ... (Name of Campus)...... Campus, Institute of Science and Technology (IoST), Tribhuvan University (T.U.), Nepal for the partial fulfillment of the requirement to the project work in Bachelor of Science (B.Sc.) degree in ... (Name of subject)..... This project work is carried out by me under the supervision of .....(Name of supervisor)...... and co-supervision of .....(Name of co-supervisor)...... (Name of Campus/Institute) ...... (Name of Science and Technology (IoST), Tribhuvan University (T.U.), Nepal.

This work is original and has not been submitted earlier in part or full in this or any other form to any university or institute, here or elsewhere, for the award of any degree.

(Comment: Times New Roman, Font size 12)

Signature
Name of student
Symbol No. ......
T.U. Registration No.....

भीतिय अध्ययते हिंद् भीतिय अध्ययते क्षेत्रका कार्यास्य भीतिय २०००

[DAY, MONTH, YEAR]

## LETTER OF FORWARD

(Comment: Center, All caps, Bold, Font size 16)

On the recommendation of (name of supervisor, bold faced letter) and (name	e of co-
supervisor, bold faced letter), this project work is submitted by (name of studen	
Symbol No, T.U. Registration No, entitled(title, in bold faced letter)	" is
forwarded by the Department of (Name of department),(Name of Campus)Camp	pus, for
the approval to the Evaluation Committee, Institute of Science and Technology (IoST), Trib University (T.U.), Nepal	bhuvan

He/She has fulfilled all the requirements laid down by the Institute of Science and Technology (IoST), Tribhuvan University (T.U.), Nepal for the project work.

(Comment: Times New Roman, Font size 12)

.... (Name) ....
Head of Department
Department of ......
Campus
Tribhuvan University

[Date: Day/Month/Year]

# BOARD OF EXAMINATION AND CERTIFICATE OF APPROVAL

(Comment: Center, All caps, Bold, Font size 16)

(Symbol Noand T.U. Registration No supervisor) and co-supervision of(Namof department),(Namof Campus) Tribhuvan University (T.U.), is hereby submitt (B.Sc.) degree in(Namof subject) This is of Examination, Institute of Science and Teathers.	tle, bold faced letter)" by(Name of student)) under the supervision of(Name of the of co-supervisor) in the Department of(Name Campus, Institute of Science and Technology (IoST), the for the partial fulfillment of the Bachelor of Science report has been accepted and forwarded to the Controller echnology, Tribhuvan University, Nepal for the legal
procedure. (Comment: Time:	s New Roman, Font size 12)
(Name) Supervisor Department: Campus/Institute: University:	(Name) Co-Supervisor Department: Campus/Institute: University:
(Name) External Examiner Department: Campus/Institute: University:	(Name) Internal Examiner Department: Campus/Institute: University:
(Na Head o Departi	ame) of Department ment of Campus

[DAY, MONTH, YEAR]

Tribhuvan University

# **ACKNOWLEDGEMENTS**

(Comment: Center, All caps, Bold, Font size 16)

Text: (Times New Roman, Font size 12)

No. of pages: (Not more than 2 pages, write in justified form)

(Comment: Times New Roman, Font size 12, spacing within a paragraph 1.5, spacing between two paragraph 2.0)

(Name of student)
Symbol. No. ...
T.U. Registration No......
[Month, Year]

त्री प्रश्निक अध्यक्त का कार्याक्त का कार्य

# **ABSTRACT**

(Comment: Center, All caps, Bold, Font size 16)

Text: (Times New Roman, Font size 12)

No. of pages: (preferable within a page, write in justified form)

(Comment: Times New Roman, Font size 12)

*Keywords* (Comment: Times New Roman, Font size 10, Italics): ...., ...., ...., (Comment: Write five keywords, Times New Roman, Font size 10, not in Italics).

भावाध अध्यक्ष हैं। भावाध अध्यक्ष कार्याक्ष भावाध उर्दे

# शोधसार (अनिवार्य)

(टिप्पणी: मध्य, **बाक्लो,** प्रीति, १८)

मुल पाठ: (प्रीति, १६)

पाना संख्या : ( एक पानाभित्र समेटिने गरी लेख्नुपर्ने )

(टिप्पणी: हरफ मिलेको, प्रीति, १६)

*Keywords* (Comment: Times New Roman, Font size 10, Italics): ...., ...., ...., (Comment: Write five keywords, Times New Roman, Font size 10, not in Italics).



# LIST OF ACRONYMS AND ABBREVIATIONS

(Comment: Center, All caps, Bold, Font size 16)

Text: (Times New Roman, Font size 12)

**Examples:** 

FTIR: Fourier Transforms Infrared Spectroscopy GC-MS: Gas Chromatography-Mass Spectroscopy

LPG: Liquefied Petroleum Gases

NGO: National Governmental Organization

(Comment: Times New Roman, Font size 12, line spacing 1.5, arrange in alphabetical order)



# LIST OF SYMBOLS

(Comment: Center, All caps, Bold, Font size 16)

Text: (Times New Roman, Font size 12)

## **Examples:**

- μ
- Dipole moment Activity Coefficient γ
- Relative Dielectric Constant 3

(Comment: Times New Roman, Font size 12, line spacing 1.5)



# LIST OF TABLES

(Comment: Center, All caps, Bold, Font size 16)

Text: (Times New Roman, Font size 12)

Table No (bold faced letter): Title of the table (not bold, font size 12) Page No.

**Examples:** 

Table 1: Calorific value of different petroleum fuels

Table 2: Free radical scavenging effects of ascorbic acid
.

(Comment: Times New Roman, Font size 12, line spacing 1.5)

क्षेत्रको कार्यास्य भारतीय २०<sup>6%</sup>

# **LIST OF FIGURES**

(Comment: Center, All caps, Bold, Font size 16)

Text: (Times New Roman, Font size 12)

Figure No (bold faced letter): Title of the figure (not bold, font size 12) Page No.

**Examples:** 

Figure 1: Thin layer chromatogram of ethyl acetate extract of *A. Coronans* ... FTIR spectrum of ethyl acetate extract of *A. Coronans* ...

(Comment: Times New Roman, Font size 12, line spacing 1.5)



# **TABLE OF CONTENTS**

(Comment: Center, All caps, Bold, Font size 16)

Text: (Times New Roman, Font size 12)

**APPENDIX** (All caps, bold letter, Font size 14)

	Page No.
Cover Page Recommendation Declaration Letter of Forward Board of Examination and Certificate of Approval Acknowledgements Abstract List of Acronyms and Abbreviations List of Symbols List of Tables List of Figures	i ii iii iv v viii viii ix x x
CHAPTER 1: INTRODUCTION (All caps, bold letter, Font size 14) 1.1 General Introduction (Bold, Font size 12) 1.2 Rationale (Bold, Font size 12) 1.3 1.4 Objectives 1.4.1 General objective 1.4.2 Specific objectives	
CHAPTER 2: LITERATURE REVIEW (All caps, bold letter, Font size 14) 2.1 (Sub-heading, if any) (Bold, Font size 12) 2.2 (Sub-heading, if any) (Bold, Font size 12) 2.3	
CHAPTER 3: MATERIALS AND METHODS (All caps, bold letter, Font size 14) 3.1 Materials (Bold, Font size 12) 3.1.1 (Sub-heading, if any) 3.1.2 (Sub-heading, if any)	  
3.2 Methods (Bold, Font size 12) 3.2.1 (Sub-heading, if any) 3.2.2 (Sub-heading, if any)	
CHAPTER 4: RESULTS AND DISCUSSION (All caps, bold letter, Font size 14) 4.1 (Sub-heading, if any) (Bold, Font size 12) 4.2 (Sub-heading, if any) (Bold, Font size 12)	
CHAPTER 5: CONCLUSION AND RECOMMENDATIONS (All caps, bold letter, Font size 14)	
REFERENCE (All caps, bold letter, Font size 14)	( ",

(Comment: Times New Roman, Font size 12, line spacing 1.5)

## CHAPTER 1

(All caps, bold faced letter, Font size 16)

- **1. INTRODUCTION** (All caps, bold letter, Font size 14)
- **1.1 General Introduction** (Bold, Font size 12)

(Text: Times New Roman, Font size 12, not bold)

**1.2 Rationale** (Bold, Font size 12)

(Text: Times New Roman, Font size 12, not bold)

- **1.3 Objectives** (Bold, Font size 12)
  - **1.3.1** General objective: (Bold, Font size 12)

(Text: Times New Roman, Font size 12, not bold)

**1.3.2** Specific objectives: (Bold, Font size 12)

(Text: Times New Roman, Font size 12, not bold)

#### **CHAPTER 2**

(All caps, bold faced letter, Font size 16)

- 2. LITERATURE REVIEW (All caps, bold letter, Font size 14)
- **2.1 (Sub-heading, if any)** (Bold, Font size 12)

(Text: Times New Roman, Font size 12, not bold)

**2.2 (Sub-heading, if any)** (Bold, Font size 12)

(Text: Times New Roman, Font size 12, not bold)

#### **CHAPTER 3**

(All caps, bold faced letter, Font size 16)

- **3. MATERIALS AND METHODS** (All caps, bold letter, Font size 14)
- 3.1 Materials
  - **3.1.1** (Sub-heading, if any) (Bold, font size 12)

(Text: Times New Roman, Font size 12, not bold)

**3.1.2** (Sub-heading, if any) (Bold, font size 12)

(Text: Times New Roman, Font size 12, not bold)

- 3.2 Methods:
  - **3.2.1** (Sub-heading, if any) (Bold, Font size 12)

अनिध अध्यक्ष क्षेत्र राज्ये का कार्यास्य का जाना कार्यास्य का जाना कार्यास्य का जाना कार्यास्य का जाना कार्यास्य

(Text: Times New Roman, Font size 12, not bold)

**3.2.2** (Sub-heading, if any) (Bold, Font size 12)

(Text: Times New Roman, Font size 12, not bold)

#### CHAPTER 4

(All caps, bold faced letter, Font size 16)

- **4. RESULTS AND DISCUSSION** (All caps, bold letter, Font size 14)
- **4.1 (Sub-heading, if any)** (Bold, Font size 12)

(Text: Times New Roman, Font size 12, not bold)

**4.2 (Sub-heading, if any)** (Bold, Font size 12)

(Text: Times New Roman, Font size 12, not bold)

#### CHAPTER 5

(All caps, bold faced letter, Font size 16)

- **5. CONCLUSION AND RECOMMENDATION** (All caps, bold letter, Font size 14)
- **5.1 Conclusions** (Bold, Font size 12)

**5.1.1 (Sub-heading, if any)** (Bold, Font size 12)

(Text: Times New Roman, Font size 12, not bold)

**5.1.2 (Sub-heading, if any)** (Bold, Font size 12)

(Text: Times New Roman, Font size 12, not bold)

**5.2 Novelty and National Prosperity aspect of Project work** (Bold, Font size 12)

(Text: Times New Roman, Font size 12, not bold)

**5.3 Limitations of the work** (Bold, Font size 12)

(Text: Times New Roman, Font size 12, not bold)

**5.4 Recommendations for further work** (Bold, Font size 12)

(Text: Times New Roman, Font size 12, not bold)

#### REFERENCE

(All caps, bold faced letter, Font size 16)

#### **APPENDIX**

(All caps, bold faced letter, Font size 16)

(Scientific publication, questionnaires, long computational algorithms, if necessary)

(Comment: Times New Roman, Font size 12, spacing through body of text 1.5 spacing, 1.5 spacing within each entry but 2.0 spacing between each entry)

Note: Project work for some of the departments (Mathematics, Statistic) may not fit into the above mentioned patterns, for such situations, the body part of the project work should have the following order.

- a) Introduction
- b) Chapters with special heading, which covers the project work performed by the student.
- c) Summary and conclusions: It includes the overall summary, conclusions and the recommendation for further work, if applicable.

### **Language of Project work:**

- The project work must be written in English.
- Presentation of the project work in viva-voce examination should also be conducted in English medium.

#### Length and quality of printing of Project work:

- The project work should be printed in single sided white bond paper of A4 size with body text not less than 30 pages.
- ➤ Photocopy of printing is not acceptable.

#### Typeface and font size:

- The project work should be written in Times New Roman.
- The font size should be 12 throughout the text except as mentioned above.
- > Equations and formulae should be preferably written in 10 font size.
- > The scientific names should be written in italics.
- > The text should be justified.

#### **Tables and Figures:**

- Tables and figures should appear in the text closely to the point where it is first discussed.
- Table number and its heading should be placed above the body of the table.
- > Figure number and its heading should be placed below the body of the figure.
- The font size for both table and figure caption should be 10.
- Table number and figure number must be continuous in the report.
- ➤ Table number and figure number are written in bold faced letter while their titles are written not in bold.

#### Examples:

**Table 1** (font 10, bold): .....Title (font 10, not bold)...... **Figure 1** (font 10, bold): .....Title (font 10, not bold)......

#### **Margins:**

- ➤ In printing- top, right and bottom margins should be 2.5 cm and left margin should not be less than 3.5 cm.
- Page number should be at least 1.5 cm above from the lower edge of the paper.

#### **Spacing:**

> Spacing for text: 1.5 spacing throughout the body of text

Spacing for references: 1.5 spacing within each entry and 2.0 spacing between each entry.

#### **Pagination:**

- > Every page has a number.
- ➤ Use small Roman numerals (i, ii, iii, .....) for the preliminary pages such as *Board of Examination and Certificate of Approval, declaration, certificate of approval, table of contents etc.*
- ➤ Count the inner cover page as page i and the other pages such as *Board of Examination* and *Certificate of Approval, declaration, certificate of approval, table of contents etc.* ii, iii, iv, .... etc.
- > Do not print the page number on inner cover page.
- ➤ Use Arabic Hindu numbers (1, 2, 3, 4, ...) starting with page 1 from chapter 1.

#### Reference and citation in the text:

- American Psychological Association (APA) format should be preferably followed for references and citations in the text. The references should be arranged in alphabetical with chronological order by surname of the first author. Spacing for references should be 1.5 within each entry but double spacing between each entry. Use hanging indents: entries should begin flush left with subsequent lines indented.
- ➤ Other standard format such as AMS (American Mathematical Society), AIP (American Institute of Physics), ACS (American Chemical Society), etc. can also be accepted.
- ➤ Every reference cited in the text and present in the reference list should be linked and synchronize in standard reference management program such as EndNote, Latex, Zotero etc.

#### **Examples of using APA format in reference and citation:**

#### i) Book of single author:

Surname, Initial uppercase letter of author's name (Year), Title of the Book, Place, Publication.

Barron L. D. (1983), *Molecular Light Scattering and Optical Activity*, Cambridge University Press, Cambridge, UK.

Citation in the text: (Barron, 1983) or Barron (1983) explained ......

#### ii) Book of two authors:

Gosney, I. & Rowley, A. G. (1979), "Transformations via Phosphorus-stabilized Anions, Stereoselective Synthesis of Alkenes via the Wittig reaction", *Organophosphorus Reagents in Organic Synthesis*, Academic, New York, p.17.

**Citation in the text:** (Gosney & Rowley, 1979) or Gosney and Rowley (1979) stated that.....

#### iii) Book of three or more authors:

Pelter, A., Smith, K., & Brown, H. C. (1988), Borane Reagents, Academic, London

Citation in the text: (Pelter, et al., 1988) or Pelter, et al. (1988) explained ......



#### iv) Journal of single author:

Evans, D. A. (1982), "Studies in Asymmetric Synthesis. The Development of Practical Chiral Enolate Synthons," *Aldrichin. Acta*, **15**, 23

Citation in the text: (Evans, 1982) or Evans (1982) explained ......

#### v) Journal of two authors:

Denmark, S. E., & Marble, L. K. (1990), "Auxillary-Based, Asymmetric SN<sub>2</sub>' Reactions: A Case of 1,7-Relative Stereogenesis," *J. Org. Chem.*, **55**, 1984

**Citation in the text:** (Denmark and Marble, 1990) or Denmark and Marble (1990) highlighted ......

#### vi) Journal of three or more authors:

Gautam, D. R., Protopappas, J., Fylaktakidou, K. C., Litinas, K. E., Nicolaides, D. N., and Tsoleridis, C. A. (2009), *Tetrahedron Lett.*, **50**, 448.

Citation in the text: (Gautam, et al., 2009) or Gautam, et al. (2009) found that ......

**Note:** The names of journals should be typed in italic exactly as the name of the journal examples: J. Am. Chem. Soc., J. Org. Chem., J. Am. Stat Assoc., Tetrahedron Lett., etc.

#### vii) Ph.D/Master's Dissertation:

Rajbhandari (Nyachhyon), A. (2011), *Investigation on Inorganic Salts based Ions Selective Electrodes* (Unpublished doctoral thesis). Central Department of Chemistry, Institute of Science and Technology, Tribhuvan University, Kathmandu, Nepal.

#### viii) Internet article with DOI assigned:

Stultz, J. (2006), Integrating exposure therapy and analytic therapy in trauma treatment. *American Journal of Orthopsychiatry*, **76** (4), 482-488, doi:10.1037/0002-9432.76.4.482

# In case of more than 7 authorships, author can be used *et al.* in the text and reference respectively. For example

Van Decar, J. C., Russo, R. M., James, D. E. *et al.* (2003). A seismic continuation of the Lesser Antilles slab beneath northeastern Venezuela. *Journal of Geophysical Research*, **70** (3), 212-219, doi.org/10.1029/2001JB000884

#### ix) Internet article without DOI assigned:

Sillick, T. J. & Schutte, N. S. (2006), Emotional intelligence and self-esteem mediate between perceived early parental love and adult happiness. *E-Journal of Applied Psychology*, **2** (2), 38-48. Retrieved from <a href="http://ojs.lib.swin.edu.au/index.php/ejap/article/view/71/100">http://ojs.lib.swin.edu.au/index.php/ejap/article/view/71/100</a>, Accessed on (dd/mm/yy).



## अनुसूची - ३ (क)

Campus	
Department of	
Institute of Science and Technology, Tribhuvan Universit	ty

#### **Project Work Evaluation Form**

Name of Student:					
Title of Project work:					

Course Code: PRO-406 Symbol No.: Date: ..../....

#### **Evaluation Scheme**

10	Extraordinary	9	Excellent	8	Very Good
7	Good	6	Average	5	Poor

Evaluation Criteria	<b>Evaluation (Circle One)</b>				Evaluation (Circle One)		Total Evaluated Number	
Novelty	10	9	8	7	6	5		
Problem of Identification	10	9	8	7	6	5		
Project Design	10	9	8	7	6	5		
Procedure, Data collection and analysis	10	9	8	7	6	5		
Conclusion and Future works	10	9	8	7	6	5		
Literature review	10	9	8	7	6	5		
Writing format	10	9	8	7	6	5		
Presentation	10	9	8	7	6	5		
Viva-voce Performance	10	9	8	7	6	5		
Social Impact	10	9	8	7	6	5		

Additional Comments (If any):

$$Mark sobtained = \frac{Total Evaluated Number}{100} \times Full Mark softhe Examiner = i$$

[F.M. for out of 100: Supervisor (40)/ External Examiner (25)/ Internal Examiner (20)/ Head of the Department (15)]

Name: Signature: Date:

Supervisor/External Examiner/Internal Examiner/Head of the Department

30



# अनुसूची - ३ (ख)

# Mark ledger of the Project work student

					Date://
To,					
		ntroller of Examinat	ion,		
	Exam Section	<i>^</i>			
Tribhı	ıvan University	у,			
Balkh	u, Kathmandu,	Nepal.			
		Subject: Marks o	f B. Sc. Project work (	PRO 406	)
Sir,		•	·		-
,	Marks obtain	ed by Mr./Ms	(Ba	ntch	.) for the evaluation of
Proiec			nt of,		
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-	Fourth				e Code: PRO 406
	Tarks: 100			Cours	Pass Marks: 50
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Title (	of Project wor	·k:			
Date of	of Submission:		(BS)/	(	AD)
			(BS)/		
S.N.			Name of Student		ks obtained (In figure
					words)
1.					,
Name	and Signature	of the members of P	Project work Evaluation	committe	e/Board:
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	upervisor :				
	nal Examiner :				
	nal Examiner :				
Head	of the Departme	ent :			
					(A.T )
			~ c 4	I	(Name) Head of the Department
			・ヘング・い	, 1	read of the Department
	•	ap X ab M	E C S MUI	<b>/</b>	Campus

**Note:** Dean Office has formed a committee to revise 'B.Sc. Fourth Year Project Work (PRO 406) Guideline' under the convener-ship of **Prof. Dr. Daman Raj Gautam** (Amrit Campus) on 2078/01/15. The members of the committee were **Mr. Iswar Koirala** (Tri-Chandra Campus) and **Dr. Binod Baniya** (Patan Multiple College). The report was submitted to the Dean Office on 2078/02/14. Dean Office has tabled the report in the Full Faculty Board Meeting (virtual) on 2078/03/11. This 'B.Sc. Fourth Year Project Work (PRO 406) Guideline 2078' has been approved by the faculty Board (Full) meeting on 2078/03/11.

