

Tribhuvan University Institute of Forestry



M.Sc. Thesis Guideline
July 2026

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A Guideline for the Preparation of Master's Thesis

1.Introduction

Tribhuvan University, Institute of Forestry offer 6 Master's program in natural resources management and allied field of study. Research is an integral part of the Master's degree program offered at the Institute. These program aims to produced qualified human resources with academic excellence and solid research foundation. Students conduct research during their study period to enhance research skills and are required to write thesis as a partial fulfillment for the completion of Master's degree in their respective subjects. It comprises a sustained piece of individual work using appropriate research methods (and methodologies) culminating in the production of a bindable thesis (and other milestone assessments) under the guidance of a supervisor(s). Students should also acquire the literary skills necessary to conduct and communicate the research to other scholars as well as the concerned stakeholders. Institute considers the preparation of a thesis as an important avenue through which these skills are acquired. This guideline is a guide for the preparation of an acceptable proposal, pre-defense, thesis and manuscript. Moreover, this guideline aims at maintaining uniformity in the thesis being submitted to Institute of Forestry, Tribhuvan University. Hence, all the students/faculty are advised to strictly follow the guidelines right from the submission of thesis proposal, pre-defense, manuscript and final thesis submission. The research committee at Institute of Forestry, Tribhuvan University or respective Campuses/School has all the rights to reject the proposal/thesis/manuscript upon a failure of the students to follow the guidelines. The copyright of the Thesis will be held by Institute of Forestry, T.U.

Sample course code and subject from 2nd Year 2nd Semester (M.Sc. Forestry)

Sn	Code	Subject	Credit hours
1	SFM 651	Proposal	2
2	SFM 652	Pre-defense	2
3	SFM 699	Thesis	9
4	SFM 653	Manuscript of research work	2

1.1 Thesis Proposal Guidelines

As outlined in the M.Sc. Program Syllabus 2024, all the programs have Proposal carrying 2 credit hours. The following guideline establishes the procedures for preparing proposal and conducting the Proposal defense in final semester of all the M.Sc. Program.

Cover page

1.1 Cover page or title page

It should contain the title of research proposal, student's name, TU registration number, TU Logo, name of Campus/School/Institute/University, proposed supervisor, and date/year of submission. (Appendix 1)

1.2 Table of contents (with titles and page numbers)

This page provides information to the readers about the composition of the whole proposal as well as location of different sections and sub-sections in the proposal. Hence, this section should include the chapter, section and sub-section headings with appropriate page number (add list of tables, figure if needed).

1.3 Proposed supervisor

It should contain a short biography of proposed supervisor.

Introduction

This chapter should discuss the background of the research issues being dealt, statement of the problem, rationale of the study, research questions, and research objectives, significance and limitation of the study. Introduction must revolve around the research issue to be dealt by the thesis.

2.1 Background

Brief background of the issues should be discussed under the background section. It should be done in the form of brief literature review of related literatures, which is essential to build statement of the problem, research question, and research objectives in the later part of Introduction chapter.

2.2 Statement of the problem

This section must indicate what the problem is, and why and how it is a problem. Similarly, necessity to conduct the research should be discussed. It should be supported by data or evidences. This section should be well connected with background section and as brief as possible.

2.3 Rationale of the study

In this section, the researcher should state why this study is worthwhile and useful to the readers. The study could add to existing knowledge, improve current practices or add to policy making. Be specific and honest. Unjustified claims reduce the value of the research.

2.4 Research objectives

This section should clearly mention the overall and specific objective of the research. Use SMART guidelines to develop research objectives. Usually, objective is presented as general objective and specific objectives. The general objective of thesis research proposal should be only one and should be in line with the title. To meet the general objective, 2-3 specific objectives could be set. Specific objectives should be in line with research questions and are more or less equal to numbers of research questions.

Research questions

Based on the statement of the problem research question should be formulated. Research questions should clearly state what type of answers the research is looking for.

Test Hypotheses (if need)

A hypothesis is a conjectural statement of relations (based on the statement of the problem and the objective of the study) between two or more variables in either negative or positive terms. It should be neither too general nor too specific. However, it should specify how the variables are related. The hypotheses thus could be formulated as null hypothesis, against alternatives.

2.5 Significance of the study

The importance of the proposed research should be stated in this section, in terms of potential beneficiaries and the way they will be benefitted. This section should focus on justifying the topic of the proposed research.

2.6 Limitation of the study

This section should clearly state the limitations of the study (if necessary) for example potential constraints which might limit the research design, research methodology, study findings, etc.

Review of Literature

Literature review is basically a review of the published articles on the topic of the interest published by accredited journals, and researchers. It is quite important to reveal what is already known in the body of knowledge prior to initiating any research (Hart, 1998). Hence, literature review is a crucial part for any academic research in theoretical and conceptual progress (Shaw, 1995, Webster and Watson, 2002). This section will describe what is known about the topic being studied; what other people have found elsewhere in the subject matter? Thus, it helps to situate our research in the context of what is already known about the topic and find the gap that our research will bridge. In chronological order from the general to the specific. Also try to build the conceptual and theoretical framework of the study in flow chart based on review for clear understanding and smooth conducting of the study and clear understanding of the research for the readers. Extensive and relevant literature review should be done to meet the purpose of the research title, objectives and materials cum methods.

3.1 Conceptual framework / theoretical framework

This is necessary to strength the conceptual clarity which should ensure the validity and reliability of the concept.

Materials and methods

This chapter intend to let readers to know how research will be conducted. This chapter includes the discussion about the way the research will be conducted in order to meet the objectives. The methodology should be summarized in the form of block diagram/flowchart. Selected methodology should be discussed in details along with the justification of selecting the methodology. Each method used in the thesis should be directly and specifically linked with the research objectives. Should be short and concise; use references if possible. No discussion of methods, only description of method and possibly reason for choosing the applied methods. It should include research design (historical research, experimental research, field research, and

survey research), research approaches (qualitative, quantitative), study area, study population, sample selection (sample selection methods), sample size, methods of data collection (Key Informant Interview, Focused Group Discussion, questionnaire survey, field experiment, forest inventory, lab based experiment, GIS/RS, modeling, observation, measurement, etc.) and data analysis approach & tools such as statistical tools, GIS/RS , R studio, SPSS, etc.

4.1 Study area/Description of experimental site/species

4.2 Research design

4.3 Data Collection methods (Population and sample, Source of data, tools)

4.5 Data analysis procedure

4.5 Matrix of methodology

4.6 Ethical consideration (AI and Plagiarism less than 20%, research permission, etc.)

Ethical clearance from the relevant authority must be obtained and documented (if applicable).

Expected outcomes

Possible outcomes of the proposed research should be presented in this section. Expected outcomes include enhancement in academic knowledge in proposed area of the study, utility of the research and direct or indirect beneficiaries or innovations.

Tentative time schedule

The research proposal should include the proposed time schedule of respective activities. Different phases of the research activities should be clearly stated in working months, preferably in a diagrammatic presentation.

Budget (Tentative if applicable)

A detailed and itemized budget showing how the funds are to be spent is essential. The research proposal should include the tentative budget allocated in respective activities.

Reference

The arguments in the thesis should be supported by proper evidences. This needs to be done by referring to earlier publications such as patents, journals, books, reports, thesis and other materials. Hence, referencing gives credit to the authors or organizations for using their work in your thesis. It provides the reader with evidence of the breadth and depth of researchers reading and enables readers to locate the references easily. It is strongly recommended to follow APA methods for reference.

1.2 Appointment of supervisors and co-supervisors

Research Committee of Campus (with consent from HoD, if needed)/School Director as per in Campus/School will assign main supervisor (priority will be given to Teaching faculty of the respective campus/Adjunct Professor of IOF) for each student based on their proposal topic. One faculty can supervise 5 students at maximum in a year. As per the need of expertise in the study, on the demand of students/supervisors, Research Committee can allocate co-supervisor's expert in relevant subject, inhouse or from outside as co-supervisors (maximum 2 co-supervisors). Supervisor/co-supervisors will guide in proposal preparation, participates in proposal defense, monitor the research progress, pre-defense, RAC and also assure valid comments and suggestions raised during presentation and RAC are incorporated in thesis.

Student should get consent from supervisor for proposal presentation.

1.3 Thesis proposal evaluation

Campus/School will form a thesis proposal evaluation team with 3-4 members (1 coordinator and at least 2 other members) relevant to theme of the program in the first month of the final semester (supervisor and co-supervisors will not evaluate their own students). Coordinator will be responsible for smooth organization of the presentation and send evaluation marks to the campus administration/exam division. Proposal presentation will be physical except if students/faculty are abroad or serious illness. Benefits for the presentation evaluation team will be as the meeting benefits per session (at least 15 students in one session).

Thesis Proposal Presentation Evaluation

Sn	Evaluation criteria	Full mark	Marks obtained
1	Presentation skill	7.5	
	Eye contact, vocal expression and clarity, poise and self-control, gesticulation, open posture and engagement authenticity.		
	Texts, slides, visual aids, Language and readability.		
	Time management		
2	Scientific contents		
	Title	35	
	Introduction (problem statement and gap identification)		
	Objectives		
	Conceptual/theoretical framework		
	Research methods, design, and materials		
	Expected outcomes, timeline		
	Ethical consideration		
	Reference/citation		
3	Discussion-handling the queries and responses	7.5	
4	Total	50	

1.4 Change of Proposal

Under special circumstances, Campus/School may recommend amendments or revisions to the approved proposal. In the event of any disputes or difficulties related to the thesis research, RC (in consent of HOD as in respective campus, if needed) shall make the final decision in consultation with the respective supervisor, which may include approving or amending the existing proposal or requiring the student to develop a new proposal.

1.5 Change of Supervisor/ (Co-supervisor)

Campus/School may consider and approve the change of supervisor or co-supervisor if candidate submit request to Campus/School for change providing valid reasons and proper justification. If supervisor or co-supervisor informs the Campus/School writing that s/he is unable to carry out assigned duties due to health issues, or any other reasonable cause.

2. M.Sc. Thesis Pre-Defense Guidelines

As outlined in the M.Sc. Program Syllabus 2024, all the programs have Pre-Defense schedule carrying 2 credit hours. The following guideline establishes the procedures for conducting the Pre-Defense in final semester of all the M.Sc. Program.

2.1 General Provisions

2.1.1 The Pre-Defense can be scheduled four (4) months after the successful completion of the Proposal Defense.

2.1.2 The Pre-Defense will be conducted by the respective Campus/School.

2.1.3 The Campus/School will be responsible for forming an evaluation team consisting of 3 members (supervisor and co-supervisors will not evaluate their own student).

2.1.4 The Evaluation team members will comprise of relevant faculty members from respective Campus/School.

2.1.5 Evaluation team members will receive incentives as per the meeting benefits per session (at least 15 students in each session).

2.2 Application and Submission Requirements

2.2.1 Students must submit an application letter/email, along with draft thesis to the Campus/School for Pre-Defense along with consent letter/email from supervisor and co-supervisor(s).

2.2.2 The draft thesis submission must be approved by the Supervisor and Co-Supervisor before applying for the Pre-Defense.

2.2.3 The draft thesis should conform to the structure and quality of the final thesis guidelines and should adhere to the content.

2.2.4 Students must submit the draft thesis one week before the proposed presentation date to the evaluation team for reviewing by the team members.

2.2.5 During the pre-defense student must provide abstract/presentation slides for evaluation team members.

2.3. Pre-Defense Process and Evaluation

Student must have completed data collection and thesis draft preparation in order to participate in the pre-defense. Such progress of the student shall be evaluated by the supervisor(s). If the student's work is determined to be at or near the final stage for evaluation, the advisor shall send the recommendation to the campus/school to request processing for the pre-defense.

2.3.1 The date of the Pre-Defense should be announced at least a week in advance. Pre-defense presentation will be physical expect if students/faculty are in abroad or serious illness.

2.3.2 The student will have 20 minutes for their presentation, followed by 20 minutes for discussion.

2.3.3 Students should inform respective supervisors and co-supervisors about the presentation schedule.

2.3.4 Presence of respective student's supervisor is mandatory. No presentation may proceed without the (main) supervisor. An exception will be considered only if the main supervisor is abroad or serious illness.

2.3.5 Evaluation team members are required to review the draft thesis thoroughly and provide constructive feedback for improvement.

2.3.6 Supervisor and Co-supervisors should ensure valid comments and suggestions received during the Pre-Defense are incorporated into the thesis before submitting the final version of thesis for RAC evaluation.

2.3.7 The evaluation team must submit their Pre-Defense evaluation report in the written form on the same day of the defense.

2.3.8 Presentation outline is same as thesis defense presentation outline

2.3.9 Presentation will be physical expect if students/faculty are in abroad or serious illness.

2.3.10 M.Sc. Thesis Pre-Defense progress evaluation criteria;

Thesis pre-defense Evaluation

Sn	Evaluation criteria	Full mark	Marks obtained
1	Presentation skill	7.5	
	Eye contact, vocal expression and clarity, poise and self-control, gesticulation, open posture and engagement authenticity.		
	Texts, slides, visual aids, Language and readability.		
	Time management		
2	Scientific contents	30	
	Title		
	Abstract		
	Introduction (problem statement and gap identification)		
	Objectives		
	Literature review		
	Research design, methods, design, materials, data collection and analysis		
	Ethical consideration		
	Results and discussion		
	Conclusions and recommendation of research		
3	Discussion-handling the queries and responses	7.5	
4	Thesis formatting, citation	5	

	accuracy		
4	Total	50	

2.4 Slide Preparation Guideline

Time for each presentation: – 20 minutes presentation and 20 minutes discussion

Title slide: Research title with author and advisors' names

Number of slides: (18-35) – (Including all: the title, acknowledgement and also the photo plates)

Font size in the slides: – Title: Not less than 32 point – Body text: not less than 24 points

Title page – 1 slide

Introduction – (3 to 4) slides

Objectives – 1 slide

Materials and Methods – (5 - 7) slides

Results and Discussion – (6 - 8) slides

Conclusion and Recommendations – (1 - 2) slide

Reference – (1 - 2 slides)

Acknowledgement – 1 slide

Photo plates – (1- 3) slides

2.5 RAC formation and their member's role

For the final evaluation of the thesis after incorporation of comments and suggestions received during Pre-Defense, student will submit draft thesis and manuscript to Campus/School for RAC evaluation with the written/email consent from supervisor. Campus/School will forward thesis and manuscript to Exam Control Division along with internal evaluator and supervisor, then exam division will assign external evaluator for the thesis evaluation based on the theme of the thesis. This date is considered as thesis submission date. The duration of RAC committee will be 2 weeks. The responsibility of the internal and external evaluators is to thoroughly review the content of the submitted thesis and manuscript. External/Internal, will exam the originality of the thesis and assessing it for any instances of falsification, fabrication, or plagiarism. The members shall also determine whether the thesis meets the academic standards expected at the Master's level. Based on these criteria, the members shall evaluate the RAC presentation (viva voce) and submit the marks to the RAC coordinator (Supervisor). The RAC presentation (viva voce) shall not be conducted in the absence of the external examiner. Thesis and manuscript evaluation form will be as prescribed by Dean Office. Students should pass all the courses including elective courses before RAC evaluation result. Minimum gap between the pre-defense and the RAC evaluation should not be less than 4 weeks.

3. Content of the thesis

3.1 Pretext

3.1.1 Cover page: This page should give information about title of the thesis. This should be brief and self-explanatory. It should relate directly to the main objective of the research. A more specific and descriptive sub-title can be added if necessary. The title must be representative of the contents of the thesis.

Title: This must be the full official title with meaningful description of the content of the thesis.

Candidate's name: Full name is preferable than the initials.

TU registration number

TU logo should be kept below title

University, Institute, Campus/School Name

Degree: Write out the full name of the degree. Candidates must be very sure that they use the precise degree name.

Date: This is determined by the month and year in which the candidate qualify for graduation. This page is not numbered, but it is counted as the first page (i) of the opening component. For the convenience to easily locate the thesis while staked, information on title, author and year of graduation must appear in the side of bind thesis. Information on font type, font size, font color, page margin and spacing between the lines is provided below. The contents of the title page are as follows (Appendix 2) and side print of hard cover of thesis as Appendix 3

3.1.2 Second Cover page with name of supervisor and co-supervisors (Appendix 4)

3.1.3 Mailing address of student and Citation sample of the thesis (Appendix 5)

3.1.4 Letter of acceptance (required) (Appendix 6)

The letter of acceptance page must contain a heading of the thesis (wording and punctuation to agree exactly with the Title Page), the candidate's names as it appears on the title page and the name of the degree. This page should be printed in the letter head of the institution (Campus/School/College) accepting the degree and should be signed by the supervisor(s).

3.1.5 Declaration (Appendix 7)

It includes the brief statement of declaration, copyright statement.

3.1.6 Dedication

It should be brief and centered on its own page. No heading is necessary.

3.1.7 Acknowledgments (Appendix 8)

Include a brief statement of appreciation or recognition of special assistance. Acknowledgements, in centered, without punctuation.

3.1.8 Abbreviations/Acronyms

This section provides the list of abbreviation and acronyms used in the thesis along with their details. It should be presented in alphabetical order (See Appendix 14).

3.1.9 Units and conversions

This section provides the list of units and conversions, if applicable, used in the thesis along with their details. It should be presented in alphabetical order.

3.1.10 Abstract (English and Nepali)

The heading Abstract, bold font should be centered between the left and right margins, without punctuating or underlining. Four blank spaces should be maintained before starting the paragraph. Abstract is a summary of entire thesis (introduction, research problem, objectives, materials and methods, and a condensed summary of findings and conclusion). Hence, it should be a concise reflection of the entire study so that it functions chiefly as a guide for students and scholars surveying research in their field. It should be written in simple English. Must only contain information that is presented in the paper. Commonly 250-350 words. No literature review or references. Four to six keywords based upon the research should be given immediately below the abstract in alphabetical order.

3.1.11 Table of content

Provides an overview of the thesis' structure and an index for selective reading of the thesis. This page provides information to the readers about the composition of the whole thesis as well as location of different sections and sub-sections in the thesis. Hence, this section of the thesis should include the chapter, section and sub-section headings with appropriate page number (See Appendix 11). All materials following the Table of Contents are listed in it. The titles of parts, sections, or chapters, and their principal subdivisions should be listed in the Table of Contents (till third level 1.1.1) and must be worded exactly as they appear in the body of the thesis. It should be placed next to the abstract sheet.

3.1.12 List of Figures

List all the figures used in the thesis on a separate page. This page provides information to the readers about the details of the figures provided in the thesis along with their location (page numbers). Numbering of figures should reflect on which chapter the figure belongs to (See Appendix 12). e.g. **Figure 3.4:.....** refers to fourth figure of chapter 3 in bold, center, below the figure.

3.1.13 List of Tables

List all the tables used in the thesis on a separate page. This page provides information to the readers about the details of the tables provided in the thesis along with their location (page numbers). Numbering of tables should reflect on which chapter the table belongs to (See Appendix 13). e.g. **Table 3.4:.....** refers to fourth table of chapter 3 in bold, center, above the table.

3.1.14 List of plates/pictures (with titles and page number) (if required)

This page provides information to the readers about the details of the plates/pictures provided in the thesis along with their location (page numbers). Numbering of plates/pictures should reflect on which chapter the plate/picture belongs to. e.g. **Plate 3.4:.....** refers to fourth plate of chapter 3 in bold, center, below the plate.

3.2 Text: It is a main body of the thesis dealing particularly with Chapters starting from Introduction followed by Literature Review, Materials and Methods, Results and Discussions and Conclusion and Recommendations. Heading of all the chapters should be uppercase (ALLCAPS).

CHAPTER 1 INTRODUCTION

This chapter should discuss the background of the research issues being dealt with, statement of the problem, research questions, research objectives, significance/rationale of the study, and scope and limitation of the study. Introduction must revolve around the central research issue.

1.1 Background

Brief background of the issues should be discussed under the background section. It should describe the present knowledge in the form of brief literature review of related literatures,

which is essential to build statement of the problem, research question, and research objectives in the later part of Introduction chapter.

1.2 Statement of the problem

This section should clearly define the research problem by explaining what the problem is, why it is important, and how it affects the field of study. It should identify the existing knowledge gap, unresolved issues, or practical challenges supported by recent evidence and literature. This section should be well connected with why the research is necessary and how it addresses the identified gap.

1.3 Rationale of the study

This section explains, why this study is worth undertaking. The study should justify the originality and relevance of the research by describing how it contributes to existing knowledge, addresses theoretical or methodological gaps, improves current practices, or informs policy and decision-making. The rationale should be specific, evidence-based, and should be specific and honest. Unjustified claims reduce the value of the research.

1.4 Research objectives and Research questions

This section should clearly mention what you want to achieve from the research. Usually, objectives are presented as general objective and specific objectives. The general objective of research should clearly reflect the overall aim of the study and align with the research title. To meet the general objective, the specific objectives should describe the individual tasks required to achieve the general objective. This section presents the overall purpose of the study. Based on the research problem and objectives, the research questions should be formulated to specify the issues that the study intends to answer. Research questions should clearly state what type of answers the research is looking for.
(Where appropriate, hypotheses may also be included following the research questions.)

1.5 Significance of the study

The expected contributions and practical importance of the research should be stated in this section, in terms of potential beneficiaries & the way they will be benefitted. The section should focus on justifying the topic of the proposed research. The significance should focus on the scientific, practical, policy, and societal contributions of the research.

1.6 Limitation of the study

This section should clearly state the limitations of the study (if necessary) for example potential constraints which might limit the research design, research methodology, study findings, etc.

CHAPTER 2 LITERATURE REVIEW

Literature review is basically a review of the published articles on the topic of the interest published by accredited journals, and researchers. It is quite important to reveal what is already known in the body of knowledge prior to initiating any research (Hart, 1998). Hence, literature review is a crucial part for any academic research in theoretical and conceptual progress (Shaw, 1995, Webster and Watson, 2002). This section will describe what is known about the topic being studied; what other people have found elsewhere in the subject matter? Thus, it helps to situate our research in the context of what is already known about the topic and find the gap that our research will bridge. Move from the global to the local; from the general to the specific. Also try to build the conceptual and theoretical framework of the study in flow chart based on review

for clear understanding and smooth conducting of the study and clear understanding of the research for the readers. Extensive and relevant literature review should be done to meet the purpose of the project title, objectives and materials cum methods.

Conceptual framework / theoretical framework

This is necessary to strength the conceptual clarity which should ensure the validity and reliability of the concept.

2.1 Theoretical Framework

The theoretical framework presents the theories that explain the research problem and provide the foundation for interpreting the study findings. It should clearly explain the selected theory or theories, justify their relevance to the study, and demonstrate how they guide the research objectives, hypotheses (if applicable), methodology, and interpretation of results.

2.2 Conceptual Framework

The conceptual framework illustrates the relationships among the key variables or concepts investigated in the study. It should be developed from the reviewed literature and theoretical foundation and presented using a clear diagram or flowchart accompanied by a brief explanation. The framework serves as a roadmap for the study by linking the research objectives, variables, and analytical approach.

CHAPTER 3 MATERIALS AND METHODS

This chapter describes the research methodology adopted to achieve the research objectives. It should provide sufficient detail to enable another researcher to replicate the study under similar conditions. The methodology should be presented logically and systematically, clearly explaining how, where, when, and why the research was conducted. Selected methodology should be discussed in details along with the justification of selecting the methodology. Each method used in the thesis should be directly and specifically linked with the research objectives. Should be short and concise; use references as far as possible. No discussion of methods, only description of method and possibly reason for choosing the applied methods. Should be written in **past tense**. The methodology should be summarized in the form of block diagram/flowchart. It should include research design (historical research, experimental research, field research, and survey research), research approaches (qualitative, quantitative), study area, study population, sample selection (sample selection methods), sample size, methods of data collection (Key Informant Interview, Focused Group Discussion, questionnaire survey, field experiment, forest inventory, lab based experiment, GIS/RS, modeling, observation, measurement) and data analysis approach & tools such statistical tools GIS/RS , R studio, SPSS, etc.

3.1 Study area/Description of experimental site/species

3.2 Research design

3.3 Population and Sampling

3.4 Data Collection methods

3.5 Data analysis (including the validity and reliability)

3.5 Ethical consideration (AI and Plagiarism less than 20%)

Ethical clearance from the relevant authority must be obtained and documented (if applicable). The student should obtain a plagiarism clearance certificate before submitting the thesis as per TU regulations.

CHAPTER 4 RESULTS AND DISCUSSIONS

This chapter presents the findings of the study in logical sequences in line with the specific objectives. Presentation and discussion of results should be based on the themes derived from the analytical framework, i.e. the analysis and interpretation of data/information should be done according to the research objectives/hypothesis/research questions. Presentation of data and facts should be explained regarding plausibility and compared with data from similar studies. The causal factors behind the findings should be discussed in relation to other variables under consideration in the study based on Focused Group Discussion (FGD), Key Informant Interview (KII), questionnaire survey, experiment, modeling, observation, measurement, GIS/RS applications or literature reviews. In discussion section, interpretation, comparison, implication and conclusion data should be presented in logical order. Use a writing style that underscores the impression of observation.

4.1 RESULTS

Sub-heading if needed

4.2 DISCUSSION

Sub-heading if needed

CHAPTER 5 CONCLUSION AND RECOMMENDATIONS

This chapter provides a conclusion of study. Conclusion is an integration of various issues covered in the body of the thesis. Gives a precise and summarizing statement of the results. The section should begin with a clear statement of the principal findings. Conclusion includes noting any implications resulting from the discussion and making policy recommendation as well as the need for further research. Hence, the conclusion should be a logical ending to what has been previously discussed. It must pull together all parts of the argument and refer the reader back to the focus study have outlined in introduction and to the central topic. Never present any new information in this section and never make generic conclusion which are not supported by the data/information in the text of the thesis. Don't be afraid to discuss the potential implications and future perspective on the work. Thus, conclusion and recommendation of the study must be limited within the scope of the research.

REFERENCE

The arguments in the thesis should be supported by proper evidences. This needs to be done by referring to earlier publications such as patents, journals, books, reports, thesis and other materials. Hence, referencing gives credit to the authors or organizations for using their work in

thesis. It provides the reader with evidence of the breadth and depth of researchers reading and enables readers to locate the references easily. All the cited literature must be included in the reference list. Make sure all the materials listed in the reference follow the APA format of referencing style.

APPENDIX:

Appendices contains supplementary materials that support the main text but are not essential to its continuous reading. These materials provide additional detail, improve transparency, and facilitate replication of the research. This provides greater details and visual examples for better understanding of the main content in the form of text, data-sheet, graph, coding, picture, etc.

Depending on the nature of the study, appendices may include:

- Research instruments (questionnaires, interview guides, observation checklists)
- Ethical approval and informed consent forms
- Raw data or summary datasets
- Additional statistical outputs
- Maps, photographs, or field illustrations
- Computer codes or scripts (e.g., R, Python)
- Laboratory protocols
- Supplementary tables and figures
- Other supporting documents relevant to the research

Each appendix should be clearly numbered, titled, and referred to in the main text where appropriate.

4 Formatting and requirements (except cover page, and title page)

Paper specifications:

Color: White

Size: 21 cm x 29.7 cm (A4)

Length of thesis:

In total, the length of the main body of thesis is expected in between 60 to 100 pages (12 point, Times Roman New, 1.5 Spacing). It is necessary to consult with the thesis supervisor for the comprehensiveness of text, its flow and logics. Always incorporate only the important contexts, do not include the unreasonable and unnecessary text.

Binding – Green hard cover with golden text

Calculation and measurement unit: SI unit

Equation: Equation should be typed using equation editor. It should be cited in the text as Eq. (n), where n represents specific equation number. e.g. Eq. (1), Eq. (2).

Language: American or British English (Consistency should be maintained). Any non-English word should be in *Italic*.

Main-text:

- a. Left margin: 3 cm (1.2 inches)
 - b. Right margin: 2.5 cm (1 inch)
 - c. Top margin: 2.5 cm (1 inch)
 - d. Bottom margin: 2.5 cm (1 inch)
 - e. Line spacing: 1.5
 - f. Side: Front (Single side)
 - g. Font size: 12 pts (can be adjusted in tables and figures)
 - h. Font type: Times New Roman (even in tables and figures)
 - i. Font style: Regular
 - j. Font color: Black
 - k. Typing machine: Computer
 - l. Printing quality: Laser
- Make the font bold only, when necessary, as prescribed in the format.

5 Thesis submission

The final hard-binding copy of the thesis must be submitted within two-week of the RAC presentation (viva voce). The thesis must be accompanied by a plagiarism report (less than 20% similarity, and same for AI). The student must submit well-prepared and duly signed thesis at least two copies, hard bind with green cover and golden letter to the Campus/School with a soft copy in PDF format. A manuscript based on the research work must be submitted along with the thesis. If the manuscript has already been submitted to or published in a journal, the student must provide evidence of submission, acceptance, or publication to the Campus/School.

6 Slide Preparation Guideline

Time for each presentation: 20 minutes presentation and 20 minutes discussion

Title slide Research title with author and advisors' names

Number of slides: (18-30) – (Including all: the title, acknowledgement and also the photo plates)

Font size in the slides: – Title: Not less than 32 point – Body text: not less than 24 points

Title page – 1 slide

Introduction – (3 – 4) slides

Objectives – 1 slide

(Materials and) Methods – (5 - 7) slides

Results and Discussion – (6 - 8) slides

Conclusion and Recommendations – (1-2) slide

Reference – (1-2 slides)

Acknowledgement – 1 slide

Photo plates – (1- 3) slides

7 Presentation template

1. Introduction



12/26/2025

8 Manuscript guideline

In all the M.Sc. Program Manuscript of the research work carries 2 (two) credit hours. Students need to prepare manuscript of the research work under the guidance of the respective supervisor and co-supervisors. Students must submit the final manuscript in peer-reviewed journal before viva-voce of the thesis. Institutional affiliation of the current campus/school and supervisors name is mandatory even if it is published after the graduation from the respective campus/school.

Guideline for manuscript

1. Title
Manuscript's title should be concise, descriptive, unambiguous, accurate, and reflect the precise contents of the manuscript. This should be brief and self-explanatory. It should relate directly to the main objective of the research.
2. Manuscript must be accompanied by name, affiliation, and contact information of all authors.
3. Manuscript should not exceed 6,000 words in length.
Word counts are based on the number of words in the text of the document and do not include the abstract, keywords, references, captions, tables, figures, or supplemental materials
4. The manuscript should include the following heading:
Title
Abstract
Introduction
Materials and Methods
Results and Discussions
Conclusions
Acknowledgements
References (only cited inside the article)
5. Articles should include an abstract of not more than 250 words with 5-6 key words.
Abstract should concisely state the purpose of the research, methods, major findings, and conclusions. No literature review or references.
Keywords should be as specific as possible to the research topic.

Introduction
Concept (Introduction, Statement of the problem)
Research question
Research objective
Scope of the study

Literature review
Theoretical
Empirical
Research Gap
Conceptual Framework

Materials and Methods
Study Area
Data Collection Techniques
Duration of the Study

Results
Descriptive Analysis, Inferential Analysis based on research objectives
Result of Hypothesis Testing (if possible)

Discussion
State core results explicitly, answering the main research question or hypothesis. Connect research findings to past studies mentioned in introduction. Explain if your results support, extend, or contradict previous theories or data.

Conclusions and recommendations
Aim of the study
Major findings
Recommendation
Research gap and further research avenues

6. The manuscripts should be in Times New Roman. The font size should be as follows:
Topic 14, authors name, abstract, heading, and text - 12, sub heading, figures and tables - 11
7. Tables should be double-spaced; however, exceedingly large tables may be single-spaced to reduce the number of pages they cover. Tables should be sized to fit on a single page in portrait orientation. Total table width should be no more than 7 in.; total table height should be no more than 9.66 in. including the table title and table footnote(s). Table titles, column heads, and side heads should be in initial cap and lowercase, not all caps.
8. Figure and pictures should be in jpg. Captions should not appear on the figure itself.
9. All references should follow APA methods and be listed alphabetically at the end of the paper and cite them parenthetically in the text by the author-date system, e.g. (Smith 2006). Directly quoted material must include the page number, e.g., (Smith 2006, p. 17). If a citation includes three or more authors, use "et al." where cited in the text, e.g., (Smith et al. 2006), but list authors accordingly with the citation: for citations with ten authors or fewer, all should be listed; for citations with eleven or more, only the first seven should be listed, followed by "et al." Publications by the same author(s) in the same year should be listed as 2006a, 2006b, etc. Examples of Literature Cited style (based on Forest Science Journal):

Book

Houghton, J.T., G.J. Jenkins, and J.J. Ephraums. 1990. Climate change: The IPCC scientific assessment. Cambridge University Press, Cambridge, United Kingdom. 365 p.

Chapter in book

Brokaw, N.V.L. 1982. Treefalls: Frequency timing and consequences. P. 101-108 in The ecology of a tropical forest: Seasonal rhythms and long term changes, Leigh, E.G., Jr., A.S. Rand, and D.M. Windsor (eds.). Smithsonian Institution Press, Washington, DC.

Article in journal

Jurgensen, M.F., J. Johnson, M.A. Wise, C.S. Williams, and R. Wilson. 1997. Impacts of timber harvesting on soil organic matter, nitrogen, productivity, and health of Inland Northwest forests. For. Sci. 43(2):234-251.

Proceedings

Blake, J.I., G.L. Somers, and G.A. Ruark. 1990. Perspectives on process modeling of forest growth responses to environmental stress. P. 9-20 in Proc. of conf. on Process modeling of forest growth responses to environmental stress, Dixon, R.K. (ed.). Timber Press, Portland, OR.

Technical report

Fischer, W.C., and A.F. Bradley. 1987. Forest ecology of western Montana forest habitat types. USDA Forest Service Gen. Tech. Rep. GTR-INT-223, Intermountain Forest and Range Experiment Station, Ogden, UT. 95 p.

Thesis/dissertation

Korol, R.L. 1985. The soil and water regime of uneven-age interior Douglas-fir (*Pseudotsuga menziesii* var. *glauca*). M.Sc. thesis, Univ. of British Columbia, Vancouver, B.C., Canada. 164 p.

Web publications

USDA Forest Service. 2002. The process predicament: How statutory, regulatory, and administrative factors affect national forest management. Available online at www.fs.fed.us/publications.html; last accessed Apr. 15, 2005.

Personal communications

Personal communication should be cited in the text and should include the affiliation of the person and the date of the communication: (full name of the person, pers. comm., Affiliated Organization, Date of communication).

10. Tables and figures should be kept to a minimum and should be embedded in the text. A short descriptive title should appear above each table and numbered consequently in bold (e.g. **Table 1:**). Similarly, a short descriptive title should also appear below each figure including figure numbers (e.g. **Fig. 1:**).

Seminar fee

Normally, a student is expected to complete all courses, including the pre-defense and final RAC evaluation, within two academic years. Under any circumstances, if a student is unable to participate the pre-defense within the given timeframe of the regular semester, the concerned student shall pay a seminar fee as per the campus regulation to participate in the pre-defense seminar in the following semester.