Tishk International University

Faculty of Engineering

Computer Engineering Department

Graduation Project Manual

2024-2025

Student Responsibilities while formulating research topic/title.

Your chosen topic/title must be:

• **Your topic must be achievable in terms of research methods:** Your topic needs to be feasible in respect of both availability of data and the availability of tools for analysis. Some research projects and research methods are beyond the capabilities of students because of technical, cost or time requirements and ethical approach. It is important that the method chosen is appropriate for the research's aims.

• **Your topic must be achievable in a reasonable time between September to May** (the starting and finishing time may vary)**:** The project (thesis) should be capable of being completed in one semester (in some departments two semesters). The thesis progress and passing is the equivalent of one/two courses or one/two semesters' work. Try to discipline yourself by spending as much time on it as if you were having three-hour lectures per week. Define three hours for it in your timetable and tick to it. Some weeks will be emptier than others but try to stick to it anyway; sometimes it is when we feel idle that the best ideas come in and there are always articles available to enrich your knowledge. Every researcher faces a time when he feels overloaded with information, the key is to classify your information into categories and do not lose your objective. The thesis should have a minimum of 7000 words for acceptance. It is not the quantity that matters but the quality of your research, demonstration, and conclusion.

• Make sure your project is well-designed so that the **data will be interpretable**, no matter the result. Always keep in mind that you must interpret your data so be careful when you are designing surveys of questionnaires not to end with "neutral" questionnaires making it almost impossible to interpret your results.

• **Your topic must be matched with your capabilities and interests:** The research topic and the methods employed should match both your interests and capabilities and the supervisor's interest on the topic. This will sustain you in times of frustration.

• **Your topic must be an area for professional development:** Your thesis/. may often be only the beginning of research on a topic. You may be able to make your thesis a stepping-stone in your career by selecting a topic that provides development in areas in which you hope to work.

• **Your topic must contribute to knowledge:** A bachelor's thesis does not have to be entirely original: it is possible to replicate an earlier study and solve a local problem that has been performed internationally. However, it should be based on a significant problem, research question or hypothesis. Your work should relate to, explain, solve or add proof to the question, problem, or hypothesis. The results of your research should increase the knowledge of that field of inquiry by improved evidence, methodology, analysis, concepts and theories.

In addition, there is not so much available data on the Kurdistan Region which is yet an interesting case study due to its specific geographical, economic, and political features. If you publish your bachelor thesis you will contribute a great deal to the research of other people around the world looking for primary data and analysis of the region. This means that you are part of a much bigger picture, promoting and informing researchers on the reality of Kurdistan Region and Iraq.

Graduation Project Process

1. The student, in consultation with academic advisors, selects a relevant and feasible topic for the graduation project. The topic should align with the student's academic interests and the guidelines provided by the department.
2. The student is assigned a project supervisor by the Departmental Scientific Committee based on the research directions indicated by the lecturers in step 1.
3. The supervisor assists in refining the project scope, defining objectives, and setting milestones.
4. The supervisor and the students sign the "Graduation Project Supervision Agreement"
5. Graduation Research Project Committee is established in the department with supervisors to be the members. The Head of Department assigns one of the members to be the Graduation Research Projects Committee Chair.
6. The Graduation Research Projects Chair arranges seminars for the 4TH/5TH Grade Students about how to conduct and write the graduation project to tackle the most crucial topics related to the research project and to demonstrate the Graduation Research Project Manual.

   Alternatively, a series of seminars may be organized by the department's academics to address the most crucial topics related to the research project. The PowerPoint presentations from these seminars will then be shared on the Learning Management System under the Graduation Project section.

7. The student meets regularly with the project supervisor (minimum twice a month) for updates and feedback. The supervisor provides guidance, addresses challenges, and monitors the overall progress of the project. The supervisor documents the meetings using "Supervision Log and Progress Sheet."
8. By the end of the academic year, the department prepares a list of GP Defense Committees for all the projects. Each committee must include members with a minimum title of Assistant Lecturer, while the secretary of the committee can be a Research Assistant. The secretary does not have the right to evaluate the project but is responsible for administrative tasks during the defense.
9. As the project progresses, the student begins preparing the thesis document. The thesis includes sections such as introduction, literature review, methodology, results, discussion, and conclusion.
10. The student submits the draft thesis to the GP Defense Committee for review. The committee evaluates the quality of research, methodology, and adherence to academic standards.
11. The student incorporates feedback from the GP Defense Committee and revises the thesis accordingly. The final version of the thesis is prepared for submission.
12. The student defends the thesis in front of GP Defense Committee. The defense includes a presentation of key findings, methodology, and responses to questions from the committee.

13. The GP Defense Committee evaluates the thesis and defense performance. The student is graded based on the quality of the research, adherence to academic standards, and the effectiveness of the defense.

Structure and Content of the Thesis

As you embark on the journey of writing your thesis, it is crucial to understand the structure and organization of your document. Your thesis should be composed of the following sections, each serving a distinct purpose in presenting your research comprehensively. Here is what each section should encompass:

3.1 Abstract:

Creating an effective Abstract for a BSc thesis is crucial, as it provides a concise summary of your research. Here is a guideline to help you craft a compelling Abstract:

I. **Purpose of an Abstract**
   - The Abstract is a brief yet comprehensive summary of your BSc thesis.
   - It should capture the essence of your research, including the purpose, methodology, results, and conclusions.

II. **Placement**
   - The Abstract is placed at the beginning of your thesis, right after the title page and acknowledgments, but before the table of contents.

III. **Length and Format**
   - Limit your Abstract to one page.
   - Use a clear and concise writing style.
   - Font and spacing should match the rest of your thesis.

IV. **Content**
1) Introduction and Objectives:
   - Begin with a few sentences that introduce the topic of your research.
   - Clearly state the main objective or thesis statement.
2) Methods:
   - Briefly describe the methodology or approach used in your research.
   - Include research design, data collection methods, and analysis techniques.
3) Results:
   - Summarize the key findings of your study.
   - Use specific data and figures sparingly – only include the most critical results.
4) Conclusions:
   - Present the major conclusions drawn from your research.
   - Highlight the significance of your findings in relation to the objectives.

5) Implications:

- Briefly discuss the implications of your findings.

- This can include potential applications, theoretical contributions, or future research directions.

V. Language and Style

- Write in the past tense as the research has already been conducted.

- Use active voice for clarity.

- Avoid jargon and complex language; make it accessible to non-specialists.

- Do not include references, detailed data, or extensive theoretical discussion.

VI. **Final Tips**

- After writing your Abstract, review it to ensure it accurately reflects the content of your thesis.

- It should stand alone, meaning a reader should understand the essence of your thesis by reading the Abstract alone.

- Seek feedback from supervisor to refine your Abstract.

Chapter One: Introduction

Chapter One of your BSc thesis, the Introduction, is fundamental in setting the stage for your entire research project. It is here that you establish the context of your study, articulate the problem you are addressing, and outline the aims and objectives. This chapter is crucial as it not only introduces your topic but also engages your readers' interest and provides a clear direction for your research. Below is a guide for the essential sections that should be included in Chapter One:

1. **Introduction and Background Studies**
    - Purpose: To provide a broad overview of your research topic, including pertinent historical and current contexts.
    - What to Include: Discuss the general field of study, highlighting key research and developments. Explain how these have led to the current state of knowledge in your field.
    - Guidance: Aim to create a narrative that logically leads to the specific focus of your study.
2. **Problem Statement**
    - Purpose: To clearly and concisely state the problem your research addresses.
    - What to Include: Identify the specific issue or gap in knowledge that your study aims to address. Explain why this problem is important and worthy of investigation.

- Guidance: Be precise and focused. The problem statement should clearly relate to the background information provided.
- NOTE: Some disciplines may prefer to put the research question at the end of the problem statement section. Check with your department.

3. **Research Question (if any)**
- Purpose: The research question is the central question that your thesis seeks to answer. It guides your research, methodology, and analysis, serving as a focal point for your entire project.
- What to Include: A clear, specific, and researchable question that directly relates to the problem statement and aims of your study.
- Guidance: Your research question should be concise yet comprehensive enough to encompass the core of your investigation. It should be specific enough to be answerable within the scope of your study and broad enough to allow for a detailed exploration of the topic.
- Example: If your thesis is in environmental science, an example research question might be, *"How does urbanization impact the biodiversity in coastal ecosystems in region X over the last decade?"*

4. **Aim of the Project**
- Purpose: To outline the overarching goal of your research.
- What to Include: A clear, concise statement of the primary aim or purpose of your study.
- Guidance: The aim should be broad enough to encompass the scope of your research but specific enough to be achievable within the context of your study.

5. **Objectives of the Study**
- Purpose: To break down the aim into specific, measurable objectives.
- What to Include: A list of clear, concise statements outlining the specific outcomes you intend to achieve through your research.
- Guidance: Ensure each objective is focused and actionable. They should contribute to achieving the project's overall aim.

6. **Scope**
- Purpose: To define the boundaries or limits of your research.
- What to Include: Explain the parameters within which your study will operate. This could include geographical limits, temporal scope, the extent of the study area, or specific aspects of the topic you will focus on.
- Guidance: Be clear about what is included and what is outside the scope of your study to set realistic expectations for the reader.

Remember, Chapter One is your opportunity to make a strong first impression and lay a solid foundation for the rest of your thesis. Take the time to craft this chapter carefully, as it sets the tone for your entire research project.

Chapter Two: Literature Review

Chapter Two of your BSc thesis, the Literature Review, is a critical component of your research project. This chapter requires you to engage with existing literature in your field, providing a comprehensive overview of relevant research conducted by others. The purpose is not only to familiarize yourself with the current state of knowledge but also to establish a foundation upon which you can build your own research. In this chapter, you will critically examine and summarize existing research related to your topic. This review should highlight gaps in current knowledge and how your research aims to address these gaps. Here is a guideline to help you craft a compelling the Literature Review:

I. **Purpose of the Literature Review**
- Contextualizing Your Research: Situates your study within the broader academic conversation in your field.
- Identifying Gaps: Helps identify gaps or inconsistencies in existing research, which your study may address.
- Demonstrating Understanding: Shows your understanding of the key concepts, theories, and methodologies in your area of study.

II. **Content and Structure**
- Broad to Specific: Start with a general overview of the topic, then progressively focus on more specific studies relevant to your research.
- Thematic Organization: Organize the review thematically or methodologically rather than chronologically, grouping studies by key themes or approaches.
- Critical Analysis: Do not just summarize the literature; critically analyze and evaluate it. Discuss the strengths and weaknesses of different approaches and findings.

III. **Source Selection**
- Focus on academic references such as research articles, previous theses, case studies, and other scholarly works.
- Ensure sources are credible and relevant to your topic.
- Include a diverse range of perspectives and methodologies.

IV. **General writing advice for different disciplines**
- Start Early: Begin your literature review early in the research process to guide your methodology and theoretical framework.
- Comprehensive Search: Conduct a thorough search across multiple databases to ensure you cover all relevant literature.
- Synthesize, Do not Summarize: Aim to synthesize literature, drawing connections between studies and noting trends and patterns.
- Maintain Objectivity: Stay neutral and objective; present a balanced view of the literature.
- Cite Properly: Use consistent citation styles as per your department's guidelines. This is crucial for academic integrity.

- Keep It Relevant: Every piece of literature included should have a clear link to your research question and objectives.
- Revise and Update: Continually revise your literature review as you uncover more research. Keep it dynamic and updated.
- Mind the Scope: Be mindful of the scope of your study. Do not stray too far from your research question and objectives.
- Integration with Your Research: Your literature review should set the stage for your research question, methodology, and analysis.
- Feedback: Regularly seek feedback from your advisor or peers to ensure your review is comprehensive and coherent.
- Documentation: Keep meticulous records of your sources for easy retrieval and verification.

Remember, a well-conducted literature review not only demonstrates your knowledge of the field but also solidifies the basis for your research contribution. It is a crucial chapter that requires diligence, critical thinking, and an in-depth engagement with existing literature.

Chapter Three: Methodology

Material & Methodology/ Subject & Methods/ Patient & Methods (According to the discipline of the department).

Chapter Three of your BSc thesis, commonly called the "Methods" or "Methodology" chapter, details the procedures and techniques used in your research. This chapter is critical as it provides the framework for how you conducted your study, enabling others in the field to replicate or build upon your work. Depending on your discipline, this chapter can be titled "Material & Methodology," "Subject & Methods," "Patient & Methods," or similar. It should detail your research design, methodologies, data collection, and analysis procedures. Clarity in this chapter is key, as it validates the reliability and validity of your results. Here is a guideline to help you craft a compelling the Methods chapter:

I. **Purpose of the Methods Chapter**
   - Transparency: Clearly describe your research process to allow for transparency and replicability.
   - Justification: Provide justification for the choices you made regarding methods and procedures.
   - Reliability and Validity: Ensure that your methods maintain the reliability and validity of your research.
II. **Content and Structure**
   - Research Design: Describe the overall design of your study, specifying whether it is qualitative, quantitative, or mixed methods.

- Participants/Subjects/Materials: Detail the participants (or subjects, materials, etc.), including how they were selected and any relevant characteristics.
- Procedures: Explain the procedures you followed in conducting your research. This includes data collection methods, tools used, and steps taken.
- Data Analysis: Describe how you analyzed the collected data. Include the statistical or analytical methods applied.

III. **General writing advice for different Disciplines**
- Clarity and Detail: Provide enough detail for someone to replicate your study. Be clear and precise in your descriptions.
- Justify Your Choices: Explain why you chose specific methods and how they are suitable for your research question.
- Ethical Considerations: If applicable, discuss how you addressed ethical issues, including consent and confidentiality.
- Consistency: Ensure your methods align with your objectives and research questions.
- Visual Aids: Use figures, tables, or flowcharts if they help clarify complex methodologies.
- Limitations: Acknowledge any limitations in your methods and explain how you mitigated them or their potential impact on your results.
- Referencing: Cite relevant literature where appropriate to support your methodological choices.
- Variation Across Disciplines: Be aware that methodological details vary significantly across disciplines. Consult your department's guidelines and previous theses for specific expectations.
- Review and Feedback: Regularly review your methods for clarity and completeness. Seek feedback from your supervisor.
- Alignment with Literature Review: Ensure that your chosen methods address the gaps or questions raised in your literature review.
- Documentation: Keep detailed records of all your research activities for accuracy and ease of reference.

Remember, the Methods chapter is not just a procedural description but a critical part of your research narrative. It should demonstrate your understanding of methodological principles and effectively communicate how your research was conducted. This chapter lays the groundwork for the credibility and validity of your findings.

Chapter Four: Results and Discussions.

Chapter Four in your BSc thesis, commonly titled "Results/Discussion," is where you present and interpret the findings of your study. This chapter is pivotal as it translates your research data into meaningful insights. Depending on your discipline, the structure and emphasis of this chapter can vary. Some disciplines prefer to separate the results and discussion into two distinct chapters, while others combine them (check with your department). This chapter should go beyond mere data presentation to include an analysis and interpretation of your results. Discuss how your findings relate to your research questions and existing literature. Here is a guideline to help you craft a compelling the Results/ discussion chapter:

I.   **Purpose of the Results/Discussion Chapter**
   - Results: Present the data you gathered in an organized and logical manner, without interpretation.
   - Discussion: Interpret the results, explaining how they answer your research questions, relate to your hypotheses, and fit within the broader field.

II.   **Content and Structure**
   - Presentation of Results: Start by presenting your findings. Use tables, graphs, and charts for clarity. Be systematic and logical in your presentation.
   - Interpreting Results: Move to a discussion of what these results mean. Connect them back to your literature review and theoretical framework.
   - Comparative Analysis: Compare your findings with those in the literature, noting agreements or discrepancies.
   - Implications: Discuss the implications of your findings for the field. How do they advance understanding? What new questions do they raise?

III. **General writing advice**
   - Clarity and Objectivity: Present your results clearly, objectively, and without bias.
   - Logical Flow: Ensure there is a logical flow from presenting the results to discussing their implications.
   - Evidence-Based Discussion: Base your discussion on the evidence presented in the results. Avoid unfounded speculation.
   - Use Visual Aids Wisely: Employ tables, figures, and charts effectively to complement, not replace, text.
   - Stay Focused: Keep the discussion relevant to your research questions and objectives.
   - Critical Perspective: Critically analyze your results, considering different interpretations.
   - Link to Literature: Relate your findings to the existing literature, highlighting contributions, contradictions, or new insights.
   - Consistency in Style: Maintain a consistent narrative and analytical style throughout the chapter.
   - Separating or Integrating: Decide whether to separate results and discussion based on your discipline's norm and the nature of your research.

- Feedback Loop: Continuously refer to your research question and objectives to ensure alignment.
- Iteration: The process of writing this chapter is often iterative. Expect to revise as you clarify your thoughts and arguments.
- Consultation: Regularly consult with your advisor for feedback, especially on the interpretation of your results.

The Results/Discussion chapter is where you make sense of your research in the context of broader academic conversation. It is an opportunity to display your analytical skills and contribute to your field's body of knowledge.

Chapter Five: Conclusions and Future Work

or Recommendations/ Limitations and Future Work (According to the discipline of the department).

Chapter Five of your BSc thesis, typically titled "Conclusions and Future Work" or "Recommendations and Limitations," serves as the culmination of your research project. This chapter synthesizes your findings, highlights their significance, and outlines potential future directions based on your work. The structure and emphasis of this chapter may vary by discipline, but its core purpose remains consistent: to draw meaningful conclusions from your study and suggest pathways for further research. This final chapter should summarize your findings and discuss their implications. Include any recommendations for future research and acknowledge the limitations of your study. Here is a guideline to help you craft a compelling the Conclusions chapter:

I. **Purpose of the Conclusions and Future Work Chapter**
- Summarizing Key Findings: Concisely summarize the main findings of your research.
- Highlighting Significance: Emphasize the significance and implications of your results in the context of the field.
- Addressing Research Objectives: Reflect on how your research has met (or not met) the objectives and research questions stated in the introduction.
- Recommending Future Work: Propose areas for future research that stem from your study's findings and limitations.
- Discussing Limitations: Acknowledge any limitations of your study and their potential impact on your findings.

II. **General writing advice**
- Conciseness and Clarity: Be concise and clear in summarizing your findings and their implications.
- Directly Address Objectives and Questions: Relate your conclusions back to the research objectives and questions posed in your introduction.

- Implications: Discuss the broader implications of your findings for the field. How do they contribute to existing knowledge?
- Recommendations for Future Research: Be specific about potential future research directions, explaining how they build on your work.
- Acknowledging Limitations: Be honest about the limitations of your study and discuss how these might affect the interpretation of your findings.
- Practical Applications: If applicable, suggest practical applications of your research.
- Reflection: Reflect on what you have learned through the research process and how it contributes to your field.
- Limitations: Acknowledge any limitations in your study that might affect the interpretation of the results.
- Future Research: Suggest areas for future research that arise from your findings.
- Integration with Previous Chapters: Ensure that your conclusions are consistent with your findings and discussions from previous chapters.
- Avoid New Information: Do not introduce new data or arguments in this chapter. It is meant for synthesis and reflection.
- Substantiation: Base your conclusions and recommendations on the evidence presented in your thesis.
- Feedback and Revision: Seek feedback from your advisor and revise your chapter to ensure it effectively encapsulates your research.

Chapter Five is your opportunity to bring closure to your thesis by effectively summarizing your research and pointing towards future avenues for exploration. It is a crucial part of your thesis, as it leaves the reader with a clear understanding of what was achieved and what remains to be explored.

References:

The References section of your BSc thesis is a critical component that lends credibility and authority to your work. It includes a detailed list of all the sources you cited throughout your thesis. Proper referencing is essential for academic integrity, acknowledging the contributions of other scholars, and providing readers with resources to further explore the topic. The Appendix is a valuable part of your thesis that can enhance the reader's understanding of your work. It provides a space for detailed evidence and background that supports the arguments and findings in your thesis without cluttering the main narrative. Here is a guideline to help you craft a compelling the references section:

I. **Placement of References**
- The References section should be placed after Chapter Five and before any appendices.
- This positioning allows readers to easily locate the sources cited in your thesis.

II. **Importance of Using a Reference Manager**
- Recommendation: Utilize reference management software like Zotero, EndNote, or Mendeley. These tools help you organize your sources, automatically format citations and bibliographies, and save considerable time.
- Consistency: Reference managers ensure consistency in citation style throughout your thesis.
- Ease of Use: They allow for easy updating and modification of your reference list as your research progresses.
- The citation style (e.g., **IEEE**) should be chosen based on your department's guidelines.

Appendixes (if any):

The Appendix section in your BSc thesis serves as a supplementary area where you can include detailed information that supports your research but is not integral to the main text. This section is optional, and its content will vary depending on the discipline and the nature of your research. Here is a guideline to help you craft a compelling the appendix section:

I. **Placement of the Appendix**
- The Appendix (or Appendices if there are multiple) should be placed after the References section.
- This placement ensures that the main body of your thesis remains concise and focused, while still providing access to supplementary material.

II. **Purpose of the Appendix**
- To provide additional, supporting details that are relevant to your research but not essential to include in the main chapters.
- To offer a repository for raw data, extended tables, questionnaires, detailed methodologies, or other relevant materials that substantiate your research.

III. **Content Considerations**
- Discipline-Specific Material: The content of your Appendix will depend on your field of study. For instance, engineering theses might include technical drawings or extended mathematical proofs, while a thesis in social sciences may have detailed survey instruments or additional data sets.
- Relevance: Ensure that all material included in the Appendix is directly relevant to your research question and objectives.
- Clarity and Conciseness: Even though the Appendix is for supplementary material, keep it as clear and concise as possible.
- Permission and Ethics: If your Appendix includes sensitive or proprietary information, ensure you have the necessary permissions and that it adheres to ethical guidelines.
- Referencing in Text: When you mention any material that is included in the Appendix, make sure to refer to it in the main text (e.g., "See Appendix A for the survey questionnaire").

- Departmental Guidelines: Consult your department's guidelines for any specific requirements related to the Appendix.

IV. **Structuring the Appendix**
- Separate Sections: If you have multiple items, organize them into separate sections, each labeled clearly (e.g., Appendix A, Appendix B, etc.).
- Consistent Formatting: Maintain consistent formatting with the rest of your thesis. This includes font, headings, and pagination.
- Clear Titles and Descriptions: Provide clear titles and, if necessary, brief descriptions for each item to help readers understand what each Appendix contains.
- Ease of Access: Arrange the materials in a logical order and in a way that is easy to navigate.

Format Guidelines

Graduation Research Project Requirements

The final Graduation Research Paper needs to meet the following requirements:

1. It must be in English (except Law Department).
2. It must be the result of genuine work **conducted by the student himself/herself.**
3. The entire manuscript needs to be **plagiarism and AI free** (no tolerance can be shown to plagiarized texts).
4. Although others can proofread the manuscript, the text needs to be written/produced by the student, leaving no room for suspicions of plagiarism.
5. Students can submit a stand-alone literature review paper or an empirical paper.
6. The manuscript has been **'spell checked' and 'grammar checked'.**
7. All sources used must be properly referenced (including the Internet).
8. All citations and referencing must be according to the IEEE format.
9. Every reference cited in the text must also be present in the reference list.
10. All references mentioned in the Reference List are cited in the text.
11. The manuscript length should be determined by the departments and announced to the students before the GRP (Graduation Research Project) course starts.
12. The manuscript needs to be submitted as both an MS Word/PDF soft copy and 3 copies of the final research project must be submitted to the supervisor or the Head of the GRP Committee: 1 for supervisor, 1 for the department/archive, and 1 for library (the departments can cancel the hard copy submission and keep only the soft copy).
13. The hard copy (the final version) must be printed with softcover book (it refers to a book that has its pages bound within a pliable paper cover (like a paperback novel, corporate annual report, or magazine). See appendix for the picture of a sample or visit the department to see the sample.
14. **Headings** should be bold and size 14.
15. **Subheadings** should be bold, italic and size 12.
16. **The rest of the text** should be regular and size 12. The font needs to be Times New Roman.
17. **Page number** needs to start from the first page after the title page and placed at the bottom right of the pages.

18. All the **paragraphs** are to be aligned justified except the chapter titles that should be centered.

19. **Margins:** 1.25 inches (3.175 cm) margins are left from the left side of the page, where the rest margins should be 1 inch (2.54 cm), and the document should be bonded from left.

20. **Indentation:** The first line of each paragraph is indented by 0.5 inches (1.27 cm) from the left margin. This creates a clear visual separation between paragraphs.

21. **Spacing:** There should be double spacing (1.5) between all lines of text in the document. This includes the title page, abstract, main body, and references.

22. **Tables** are numbered consecutively with Arabic numerals indicating the chapter number and the table's order in the tables in the same chapter. Example: Table 2.10 is the tenth table in Chapter 2. Each table should have a brief, but descriptive title placed <u>above </u>it. Tables should be placed as close as possible to the relevant text.

Example:

Table 5.1 Format Checklist

Category	Requirement	Complete/Incomplete
Font	Times New Roman	
Headings	bold and size 14	
Subheadings	bold, italic and size 12.	
The rest of the text	Regular, size 12.	
Page number	needs to start from the first page after the title page and placed at the bottom right of the pages	
paragraphs	aligned justified except the chapter titles that should be centered.	
Tables	Numbered, Italic, above the text	
Figures	Numbered, Italic, below the text	

23. **Figures (including charts, graphs, and images):** Figures are also **numbered** consecutively with Arabic numerals (e.g., Figure 1.3, Figure 2.5). Like tables, each figure should have a brief, but descriptive caption placed below it. Figures should be

placed as close as possible to the relevant text, and the figure number and caption should be positioned **below** the figure.
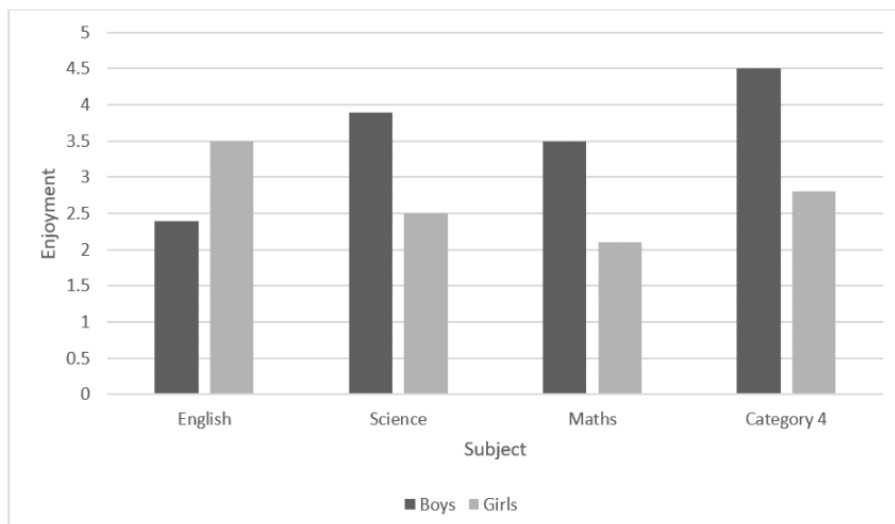
Example:

Figure 5.1. Boys' and girls' self-related enjoyment of core subjects

24. If the table, figure, graph, chart, image is not created by the author, proper credit and source information should be provided in the caption.

Evaluation and Assessment/Grading Criteria

How Students' Projects Will Be Evaluated

This section outlines how students' Bachelor Graduation Research Projects at Tishk International University will undergo assessment. The evaluation process comprises three main components: the Quality of the Thesis, the Presentation (Viva), and the Progress made throughout the project.

Three-Part Evaluation

1. Quality of the Thesis
2. Presentation (Viva)
3. Progress.

Academic Level of the Thesis:

1. Abstract
2. Introduction: (Background information, Problem statement, Project/Research aims, Research Questions, Hypothesis, Methods, Novelty, Theoretical and Practical Value, etc.)
3. Academic level of the literature review.
4. Research methodology.
5. Data collection.
6. Result analysis.
7. Conclusions and recommendations.
8. Academic level of the references.

Progress:

1. Commitment to meetings.
2. Teamwork (if any).
3. Responsiveness.
4. Academic Ethics.

Presentation & Defense:

1. Quality of the presentation.
2. Ability to deliver ideas.
3. Ability to answer questions.

Plagiarism Test

A plagiarism test is mandatory before the defense day. The maximum acceptable similarity percentage is up to 30%: 20% plagiarism and 10% AI (each department determines the percentage and sends the form to the ISO).

Evaluation Levels

For each criterion, a minimum of five evaluation levels are required. The first level corresponds to 'needs improvement' and the fifth level corresponds to 'excellent.'

Reasons for Refusal

There are stages where the supervisors can report the student's progress to the department. If the student does not get the required grade and/or does not show the required performance, it is considered as 'failed' in that stage. In the cases below, the student fails in the research project and must retake it in summer school:

1. If a student does not meet the supervisor (show) for three weeks, the student will fail in attendance.
2. If the student gets less than % 70 in the first stage, they fail in that stage. The supervisor is responsible for explaining the tasks and giving deadlines.
3. In the first stage, if the student attends the meetings with the supervisor, but there is no progress, the student will fail. 'Progress' means the student should start reading and working on one of the chapters and follow the supervisor's instructions and perform the given tasks.
4. If the supervisor finds out that the student's work is all copy-pasted/plagiarized or not written by the student him/herself, then the supervisor must report the case to the department and the scientific committee will decide whether the student should continue the project or fail in the research project.
5. At the end of all stages, if the supervisor finds out that there is adequate progress, they can report the case to the department and the scientific committee will decide whether the student should continue the project or fail in the research project.
6. At the end of stage 3, the student's draft should not be less than 90%, otherwise the student will not have any right to do the viva.
7. In the event that a student is **not able to defend his work during the Viva**, such as delivering a memorized speech, lacking comprehension of the terms/methods/theory/etc. associated with the submitted Graduation Research Project (GRP), or struggling to adequately respond to jury members' inquiries, the evaluation committee is obliged to document and report the situation to the department with detailed information. Note that if the jury members determine that **the work presented is not performed by the student, they must report the case.** The department then convenes a meeting to deliberate on the case, and the decision is meticulously recorded in the minutes. If fraudulent activity is confirmed, the student's final thesis is not

evaluated, resulting in a course failure. The department communicates this outcome to the student(s) in written form.

What is Research Ethics?

Table 3.1: Research Ethics Principles (Resnik, 2020)

	Ethics	Explanation
1	**Research ethics**	provide guidelines for the responsible conduct of research. In addition, it educates and monitors scientists conducting research to ensure a high ethical standard. The following is a general summary of some ethical principles:
2	**Honesty:**	Honestly, report data, results, methods and procedures, and publication status. Do not fabricate, falsify, or misrepresent data.
3	**Objectivity:**	Strive to avoid bias in experimental design, data analysis, data interpretation, peer review, personnel decisions, grant writing, expert testimony, and other aspects of research.
4	**Integrity:**	Keep your promises and agreements; act with sincerity; strive for consistency of thought and action.
5	**Carefulness:**	Avoid careless errors and negligence; carefully and critically examine your own work and the work of your peers. Keep good records of research activities.
6	**Openness:**	Share data, results, ideas, tools, resources. Be open to criticism and new ideas.
7	**Respect for Intellectual Property:**	Honor patents, copyrights, and other forms of intellectual property. Do not use unpublished data, methods, or results without permission. Give credit where credit is due. Never plagiarize.
8	**Confidentiality:**	Protect confidential communications, such as papers or grants submitted for publication, personnel records, trade or military secrets, and patient records.
9	**Responsible Publication:**	Publish to advance research and scholarship, not to advance just your own career. Avoid wasteful and duplicative publication.
10	**Responsible Mentoring:**	Help educate, mentor, and advise students. Promote their welfare and allow them to make their own decisions.
11	**Respect for Colleagues:**	Respect your colleagues and treat them fairly.
12	**Social Responsibility:**	Strive to promote social goods and prevent or mitigate social harms through research, public education, and advocacy.

14	**Non-Discrimination:**	Avoid discrimination against colleagues or students because of sex, race, ethnicity, or other factors that are not related to their scientific competence and integrity.
15	**Competence:**	Maintain and improve your professional competence and expertise through lifelong education and learning; take steps to promote competence in science.
16	**Legality:**	Know and obey relevant laws and institutional and governmental policies.
17	**Animal Care:**	Show proper respect and care for animals when using them in research. Do not conduct unnecessary or poorly designed animal experiments.
18	**Human Subjects Protection:**	When conducting research on human subjects, minimize harms and risks and maximize benefits, respect human dignity, privacy, and autonomy.

Thesis Template

The structure of the thesis in this template is intended to be a guide for writing up a graduation project. The chapters and sections used in this template are typically included in a research thesis.

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Referencing platform (recommended)

https://www.zotero.org