



**COLLEGE OF ENGINEERING**  
**DEPARTMENT OF CIVIL ENGINEERING**

**MSc Thesis Manual**

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## Introduction

The MSc Construction Project Management (MSc CPM) Program at the Department of Civil Engineering, College of Engineering, King Khalid University is committed to fostering a research-driven academic environment that equips students with the necessary knowledge and skills to contribute effectively to the construction industry. This manual serves as a comprehensive guide for MSc students undertaking their scientific thesis, ensuring alignment with institutional academic policies and national accreditation standards.

The manual has been meticulously developed under the supervision and review of the College Quality Assurance and Academic Accreditation Unit (QAAA) to uphold the highest academic and research integrity. It adheres to the latest regulations and quality benchmarks established by the National Center for Academic Accreditation and Evaluation (NCAAA) in the Kingdom of Saudi Arabia (KSA). The purpose of this document is to provide a structured framework for postgraduate students and faculty members, facilitating a clear understanding of the processes and expectations related to MSc thesis research.

The thesis is a cornerstone of the MSc CPM program, serving as a demonstration of the student's ability to independently conduct rigorous research, apply advanced project management methodologies, and contribute to knowledge advancement in the construction domain. Through this manual, students will gain a clear understanding of the procedures for thesis registration, proposal development, research methodology selection, data collection and analysis, thesis structuring, and the final defense process. The manual also delineates key academic and ethical standards that must be upheld throughout the research journey.

Moreover, the manual provides essential guidelines for faculty members serving as thesis supervisors, outlining their roles and responsibilities in mentoring students, providing constructive feedback, ensuring research quality, and conducting thesis evaluations. Faculty members will also find valuable insights into how the assessment process aligns with program learning outcomes (PLOs), accreditation standards, and quality assurance mechanisms to maintain the integrity and relevance of postgraduate research.

As King Khalid University continues to promote academic excellence, innovation, and industry-driven research, this manual aims to empower students and faculty with the necessary tools and resources to achieve high-quality research outcomes. We hope that this document serves as a reliable reference, addressing academic inquiries, supporting continuous quality enhancement, and encouraging faculty members and students alike to contribute effectively to the advancement of knowledge in construction project management.

May this manual serve as a guiding framework for all stakeholders, fostering a culture of academic excellence, professional integrity, and impactful research contributions in the field of construction project management.

## **1. Comprehensive Overview and Key Aspects of the Thesis**

The MSc Construction Project Management (MSc CPM) Program at the Department of Civil Engineering, College of Engineering, King Khalid University incorporates a thesis as a fundamental and integral component of the degree. The MSc thesis represents a significant piece of original academic research, conducted under the supervision of a faculty advisor, and serves as an essential demonstration of a student's ability to engage in scholarly inquiry, critical analysis, and professional research writing.

While the MSc thesis shares similarities with a doctoral dissertation, it is generally more concise and focused on a specific topic within the realm of construction project management. It consists of two primary aspects:

1. Conducting an in-depth study of a selected research topic, employing appropriate methodologies, and critically analyzing relevant data and literature.
2. Producing a well-organized and coherent document that systematically presents the research problem, objectives, methodology, findings, and conclusions in alignment with academic and industry standards.

This manual provides detailed and structured guidance on all aspects of the MSc thesis within the MSc CPM program at King Khalid University. It outlines the thesis registration requirements, alignment with program learning outcomes (PLOs), thesis preparation and

evaluation criteria, and quality assurance mechanisms to maintain high academic standards.

By following this guide, students will gain a clear understanding of the essential processes involved in thesis development, while faculty members will be equipped with the necessary frameworks to effectively supervise, evaluate, and ensure the academic integrity of MSc research in construction project management.

## 2 Registration Requirements

### 2.1 Requirements/Conditions for Thesis Registration:

- **Completion of Credit Hours:**

The student must successfully complete 18 credit hours of coursework before being eligible to register for the Master thesis.

- **Timely Registration:**

The thesis registration process must occur at the beginning of the third semester, as the thesis work spans over two semesters (third and fourth).

### 2.2. Thesis Timeline and Progress:

- **Two-Semester Thesis Work:**

The thesis work extends across two semesters (third and fourth).

- **Continued Grade in Third Semester:**

By the end of the third semester, the student is granted a continued grade based on their progress.

- **Final Grade in Fourth Semester:**

The final grade is awarded at the end of the fourth semester after successfully submitting and presenting the thesis to the examiners.

### 2.3. Thesis Failure and Extension:

- **One-Semester Extension:**

If the student fails to complete the thesis in the fourth semester, they are granted a one-semester extension to complete and submit the thesis.

- **Re-evaluation after Extension:**

The student must present the thesis to the evaluation committee by the end of the extended semester for re-evaluation.

### 2.4. Thesis Submission Requirements:

The Master thesis must include the following components:

- Introduction: Overview and background of the research topic.
- Literature Survey: Comprehensive review of existing studies and literature related to the research topic.
- Problem Definition and Significance of Research: Clear identification of the research problem and explanation of its importance to the field.
- Research Objectives: Specific goals the research aims to achieve.
- Research Methodology: Detailed explanation of the methods and techniques used for conducting the research.
- Results and Discussions: Presentation of the research findings and an in-depth discussion on their implications.
- Conclusions and Recommendations: Summary of key findings and proposed recommendations based on the research.
- References: Proper citation of all referenced literature and sources.

### **2.5. Controls, Responsibilities, and Procedures of Scientific Guidance:**

- Thesis Supervisor: Each student must have a designated thesis supervisor from the faculty, responsible for providing guidance throughout the thesis development process.
- Regular Progress Meetings: Students are required to meet regularly with their supervisor to discuss progress, address challenges, and receive feedback on their work.
- Mid-Semester Reviews: At the midpoint of each semester, students must submit a progress report to the supervisor to ensure alignment with the thesis objectives and timeline.
- Thesis Defence Preparation: The supervisor will assist in preparing the student for the thesis defence, ensuring that all aspects of the research are thoroughly covered and ready for presentation.
- Submission Deadlines: Students must adhere to deadlines set by the university for submitting drafts, final reports, and scheduling the defence presentation.
- Evaluation Committee: The thesis will be evaluated by a committee of faculty members, who will assess the research quality, methodology, and contribution to the field before awarding the degree.

## **3. Scientific Supervision**

### **3.1 Selection of the Academic Supervisor**

The academic supervisor for a master's thesis in CPM must be a faculty member from the Civil Engineering department with expertise in Construction Project Management or related fields, holding a Ph.D. and having proven experience in guiding research or

industry-related studies. Faculty members from other departments or external experts may be co-supervisors, subject to department approval, particularly for multidisciplinary thesis topics. Supervisors are assigned at the start of the third semester, and their selection is based on the alignment of their expertise with the student's research interests and the specific scope of the thesis project, with the option for co-supervision if necessary.

### **3.2. Responsibilities of the Supervisor**

The supervisor is responsible for providing academic guidance throughout the research process, ensuring the student adheres to the thesis standards and objectives. This includes helping the student define the research problem, objectives, and methodology, aligning the work with real-world construction project scenarios. The supervisor must regularly monitor the student's progress, offering constructive feedback on thesis drafts, research methodology, and data analysis, while ensuring milestones such as field studies, feasibility analyses, construction design, and cost estimation are met within set timelines. Additionally, the supervisor fosters professional development by encouraging career-oriented research that addresses real-world challenges, such as feasibility studies and cost analysis. As the thesis defense approaches, the supervisor assists in preparing the student for the oral presentation, ensuring they can effectively present their research findings, and guides the student in creating a comprehensive project report covering all aspects of the construction project.

### **3.3. Mechanisms of Scientific Supervision and Follow-up**

The supervisor and student are required to schedule regular meetings, either weekly or bi-weekly, to discuss research progress, address challenges, and provide ongoing feedback. These meetings should encompass all key aspects of the thesis, including construction engineering, project feasibility, economic aspect, and operational process. Additionally, students must submit periodic progress reports, such as mid-semester reviews, to track their research advancement and ensure alignment with thesis objectives and timelines. The supervisor will review these reports, offering detailed feedback and suggestions for improvement. A formal mid-semester evaluation will also be conducted to assess the student's progress in areas like field studies and project work, ensuring the thesis is on track for timely completion. By the end of the fourth

semester, the student will finalize a comprehensive thesis report under the supervisor's guidance, covering all essential components. The supervisor will further assist the student in preparing for the final oral presentation, ensuring they are confident in presenting and defending their work before the evaluation committee.

### **3.4. Evaluation and Defense**

At the end of the fourth semester, the student will submit the final thesis report, which must include all essential components such as field studies, feasibility analyses, construction project, analysis, and overall project evaluation. Following the submission, the student will present their thesis work before an evaluation committee in a formal oral examination. During this examination, the committee will assess the student's thesis report, presentation, and oral defense based on their depth of knowledge, technical accuracy, and the practical application of construction project management principles.

### **3.5. Responsibilities of the Student**

The student is expected to actively engage in the research process, adhering to deadlines, and responding to feedback from the supervisor(s). They must ensure the thesis work is comprehensive, covering all required areas: field studies, feasibility analysis, engineering design, project costing, and overall project management. The student is responsible for maintaining academic integrity by ensuring originality, avoiding plagiarism, and conducting ethical research. They must respect confidentiality, intellectual property, and meet deadlines while demonstrating professionalism. Ethical decision-making and consideration of environmental and social impacts are also key obligations throughout the research and thesis process.

## **4. Proposal Preparation**

The MSc Construction Project Management (MSc CPM) Program at the Department of Civil Engineering, College of Engineering, King Khalid University follows a structured process for the preparation and approval of the research proposal for the MSc thesis. The procedures and regulations for submitting a research proposal are as follows:

1. Completion of Coursework: The student must complete at least two semester of the MSc CPM program before submitting their research proposal.

2. **Submission through Supervisor:** The student is required to submit their research proposal to the MSc Scientific Committee through their academic advisor (thesis supervisor) during the designated submission period within the program.
3. **Proposal Presentation:** The student must present their research proposal to a panel of evaluators to demonstrate the relevance, feasibility, and originality of the proposed study.
4. **Evaluation by Experts:** The proposal will be reviewed and assessed by a minimum of two specialized evaluators, who will provide critical feedback and ensure the research aligns with academic and professional standards in construction project management.
5. **Minimum Evaluation Score Requirement:** The proposal must achieve a minimum score of 75% based on the established evaluation criteria of the program, which assess factors such as research significance, clarity of objectives, methodology, and potential contribution to the field.
6. **Final Review and Approval:** The Scientific Committee conducts a thorough review of the proposal, evaluates the findings of the evaluators, and subsequently issues a formal recommendation for approval to the Head of the Department.

This structured process ensures that MSc CPM students undertake high-quality, well-defined, and methodologically sound research that contributes meaningfully to the field of construction project management.

## **5. Thesis Preparation**

The MSc Construction Project Management (MSc CPM) Program at the Department of Civil Engineering, College of Engineering, King Khalid University emphasizes the thesis as a fundamental component of the degree. The thesis is an academic and professional research endeavor that enables students to apply theoretical knowledge, conduct in-depth investigations, and present coherent findings in a structured and scholarly manner.

The thesis process consists of two main phases:

1. Investigation and Understanding: This involves conducting research on a chosen topic, comprehending complex academic and industry-related materials, and addressing challenges beyond standard coursework or textbook exercises.
2. Thesis Writing and Presentation: The results of the research must be documented in a well-structured thesis report that communicates the findings clearly, concisely, and professionally while adhering to academic standards and formatting guidelines.

Both aspects of thesis preparation are learning-intensive and challenging, providing students with opportunities to develop critical thinking, analytical reasoning, technical writing, and problem-solving skills.

More details are available KCU Guide to write the thesis ([Weblink](#))

### **5.1. The Research and Investigation Stage**

The thesis topic is typically aligned with the research interests of the faculty supervisor and the broader themes of construction project management. The types of thesis projects may include:

- Literature Review and Theoretical Survey: Analyzing existing research, identifying gaps, and providing a comprehensive review of a specific topic.
- Exploring and Explaining Research Findings: Investigating recently published or ongoing research results and interpreting their implications for construction project management.
- Application-Based Studies: Developing computational models, simulations, or methodologies for solving real-world construction management challenges.

While MSc theses do not necessarily require original research contributions, students are encouraged to develop novel insights and contribute meaningfully to the field. A well-structured, well-written thesis can achieve academic distinction, even without new research breakthroughs.

Solving research problems is only the first phase of thesis work. The second and equally important phase is documenting and presenting findings in a professional academic manner.

## **5.2. Structuring the Thesis**

The thesis is expected to meet specific academic standards, including:

- **Formal Structure:** The document should follow an academic thesis format, including a title page, abstract, introduction, methodology, results, discussion, conclusion, and references.
- **Accuracy and Academic Integrity:** The content must be logically coherent, well-researched, and free from errors. Any borrowed ideas or text must be properly cited to avoid plagiarism.
- **Clarity and Readability:** The thesis should be written in a clear, informative, and professional manner. The reader should be able to follow the narrative without prior familiarity with the subject.
- **Proper Citation and Referencing:** All external sources must be acknowledged following standard academic referencing guidelines to maintain scholarly credibility.
- **Plagiarism is a serious ethical violation and is strictly prohibited.** Any uncredited use of external sources is considered academic misconduct and can result in disciplinary action.

## **5.3. Studying and Researching Stage**

The research process typically begins with a review of academic literature provided by the faculty supervisor. MSc students must develop skills in:

- **Critically analyzing academic papers:** Understanding complex research, identifying key findings, and drawing connections to the thesis topic.
- **Searching for additional references:** Utilizing databases, scholarly journals, and online academic resources such as Google Scholar to expand their research base.
- **Defining the scope of the study:** Narrowing down the research focus based on available literature and feasibility within the MSc timeframe.

Students are encouraged to engage deeply with the research material and seek guidance from their supervisors when encountering difficulties in comprehension or methodology selection.

#### **5.4. Communicating with the Supervisor**

Students are required to maintain regular communication with their thesis supervisor to ensure progress and receive feedback. Key steps include:

1. **Initial and Interim Reports:** These reports help the student define the research problem, methodology, and expected outcomes.
2. **Drafting Sample Chapters:** Writing early drafts of key thesis sections (e.g., introduction and literature review) to refine writing style and structure.
3. **Receiving and Implementing Feedback:** Supervisors may review sample drafts and provide critical feedback on clarity, structure, and technical accuracy. Students should carefully incorporate these suggestions into their final thesis.
4. **Planning Ahead:** Students should ensure they allocate adequate time for revisions and should be aware of their supervisor's availability for consultations.

Supervisors are valuable academic mentors, but their time is limited. Students must submit well-prepared drafts, free from grammatical and formatting errors, to ensure constructive feedback is focused on content and research quality.

#### **5. Thesis Ethics and Academic Integrity**

King Khalid University upholds strict ethical guidelines for research and thesis writing. MSc students must adhere to the following ethical principles (Link: [Code of Ethics KKU](#)):

1. **Honesty and Transparency:** All research data, methodologies, and findings must be accurately documented and reported.
2. **Avoiding Bias:** Researchers should remain objective in analyzing data and interpreting results, avoiding preconceptions or conflicts of interest.
3. **Maintaining Academic Rigor:** All work must be conducted with a commitment to accuracy, precision, and professionalism.

4. Collaboration and Knowledge Sharing: Students should respect academic discourse, share ideas with peers, and accept constructive criticism from faculty.
5. Respect for Intellectual Property: Proper citation of all sources is mandatory to protect academic integrity and avoid plagiarism.
6. Data Privacy and Confidentiality: Research involving human participants or proprietary data must adhere to privacy and confidentiality standards.
7. Professional Conduct: Students should maintain respectful communication with faculty, peers, and external research contributors.

Failure to comply with these ethical guidelines can result in academic penalties, including rejection of the thesis.

#### **6. Research Oversight and Supervisor's Role**

The thesis supervisor is responsible for monitoring the student's research progress through the following activities:

1. Regular Meetings: Scheduled discussions to evaluate research direction and address challenges.
2. Review of Reports and Drafts: Continuous assessment of written thesis sections.
3. Final Thesis Review: Ensuring the thesis meets academic and research standards.
4. Performance Monitoring: Supervisors submit official progress reports each semester to the Head of Department, Civil Engineering.
5. Seminars and Presentations – Students are encouraged to present their research progress in departmental seminars to refine their communication and defense skills.

#### **7. University Research Regulations and Controls ([Weblink](#))**

King Khalid University follows a strict regulatory framework for scientific research and thesis preparation. Students must comply with:

- Ethical considerations in research: Particularly for topics involving human subjects, environmental concerns, or industry collaborations.

- Institutional Research Approval: Researchers must obtain necessary approvals before commencing studies involving sensitive topics or confidential data.
- Authorship and Acknowledgments: Proper credit must be given to contributors, co-authors, and research collaborators.
- Responsible Data Handling: Research data must be securely stored and ethically managed to protect participant confidentiality.

For further guidance, students should refer to the official research guidelines issued by the Postgraduate Deanship and University Research Committee.

## 6. Structure and Format of the Thesis

The MSc Construction Project Management (MSc CPM) Program at the Department of Civil Engineering, College of Engineering, King Khalid University requires the MSc thesis to follow a structured format that ensures clarity, coherence, and consistency in academic writing. This section provides detailed guidelines on the structure and formatting of the thesis in accordance with the Master's Dissertation Template of King Khalid University.

### 6.1. General Structure of the Thesis

The thesis should consist of the following major sections:

1. Title Page: Includes the thesis title, student name, degree program, department, university name, supervisor's name, and date of submission.
2. Abstract: A concise summary of the research, methodology, key findings, and conclusions (maximum 500 words).
3. Acknowledgments: A section for expressing gratitude to individuals and institutions that supported the research.
4. Table of Contents: Lists all sections and subsections with page numbers.
5. List of Figures and Tables: A list of all figures and tables included in the thesis with page references.
6. Nomenclature: A glossary of technical terms and abbreviations used in the thesis.

7. Chapter 1: Introduction: Defines the research problem, objectives, scope, and significance of the study.
8. Chapter 2: Literature Review: A critical analysis of existing research and theoretical frameworks related to the study.
9. Chapter 3: Methodology: Describes the research approach, data collection, and analysis methods.
10. Chapter 4: Results and Discussion: Presents the findings of the research, supported by tables, figures, and analysis.
11. Chapter 5: Conclusion and Recommendations: Summarizes key findings and suggests future research directions.
12. References: A complete list of cited works following the required citation format.
13. Appendices: Includes supplementary materials such as additional data, survey instruments, and code snippets.

Each main section should be of roughly equal length to maintain balance and readability. Subsections may be used to organize content effectively.

## **6.2. Title Page**

- The title should be clear, informative, and free of abbreviations.
- It should match the title approved in the research proposal.
- The title page format should follow the official Master's Dissertation Template of King Khalid University.

## **6.3. Introduction**

The Introduction is a critical section of the thesis and should be written clearly to engage the reader. The key elements of the introduction include:

- Background and Context: Introduces the research area and provides necessary definitions and terminology.
- Research Problem Statement: Clearly defines the problem being addressed.
- Research Objectives: Specifies the aims of the study.

- **Significance of the Study:** Explains the importance and potential impact of the research.
- **Research Methodology Overview:** Briefly outlines the approach used in the study.
- **Thesis Structure:** Summarizes the contents of each chapter.

A well-structured introduction should answer the following questions in a logical sequence:

- What is the study about?
- Why is it important?
- How will it be conducted?

Common mistakes to avoid in the introduction:

- **Exaggerated claims:** Avoid overstatements about the importance of the topic.
- **Assuming too much prior knowledge:** Explain concepts clearly for a broad academic audience.
- **Unclear structure:** Ensure that background, problem statement, and methodology are distinctly presented.

#### **6.4. Bibliography and Citation Style**

Citing references properly is an essential part of academic writing. In the MSc CPM thesis, students must follow the numbered citation style used in King Khalid University's Master's Dissertation Template. The guidelines for citations and references are as follows:

##### **6.4.1 Essential Citation Guidelines**

- Citations must be included whenever referencing external sources.
- Direct quotations must be explicitly attributed, e.g., "The following definition is taken verbatim from [1]."
- If a section of the thesis is based entirely on a particular source, the citation should be introduced at the beginning of the section.

- Every referenced work must appear in the bibliography, and every bibliographic entry must be cited in the main text.

#### **6.4.2 Citation Format in Text**

- References should be numbered in order of appearance in the text using square brackets, e.g., [1], [2], or [1-3].
- The citation should be placed before punctuation marks, e.g., “This method is widely used in construction management [4].”
- When citing multiple references, use a comma-separated list or range, e.g., [1, 3, 5] or [1–3].

#### **6.4.3 Bibliographic Details and Formatting**

The reference list should be formatted according to the standard citation style used in the Master’s Dissertation Template. References should be listed numerically in the References section at the end of the thesis.

Examples of Reference Formatting:

##### 1. Journal Articles:

[1] Author 1, A.B.; Author 2, C.D. Title of the article. *Abbreviated Journal Name* Year, Volume, page range.

##### 2. Books and Book Chapters:

[2] Author 1, A.; Author 2, B. *Book Title*, 3rd ed.; Publisher: Location, Year; pp. 154–196.

##### 3. Conference Proceedings:

[3] Author 1, A.B.; Author 2, C.D.; Author 3, E.F. Title of Presentation. In *Conference Name*, Location, Date; Editor 1, Editor 2, Eds.; Publisher: City, Year.

##### 4. Theses and Dissertations:

[4] Author 1, A.B. *Title of Thesis*. MSc Thesis, King Khalid University, Saudi Arabia, Year of Completion.

##### 5. Websites:

[5] Title of Site. Available online: URL (accessed on Day Month Year).

#### 4.4 Important Citation Practices

- Use primary sources whenever possible: Avoid citing secondary sources that you have not read directly.
- Check bibliographic details carefully: Ensure accuracy in journal names, volume numbers, page ranges, and publication years.
- Be consistent: Use a single citation format throughout the thesis.

#### 6.5. Appendices and Supplementary Material

- Appendices should include additional materials that are relevant but not essential to the main body of the thesis.
- Each appendix should be designated with a letter (Appendix A, Appendix B, etc.).
- The Table of Contents must include all appendices.

#### 6.6. Formatting and Layout Guidelines

- Font: Times New Roman, 12 pt.
- Line Spacing: 1.5-spaced for the main text.
- Margins: 1-inch margins on all sides.
- Page Numbering:
  - Lowercase Roman numerals (i, ii, iii, etc.) for preliminary pages.
  - Arabic numerals (1, 2, 3, etc.) for the main body.
- Figure and Table Numbering:
  - Figures should be labeled as Fig. X.X and cited in the text as (see Fig. 1.1).
  - Tables should be labeled as Table X.X and referenced accordingly.

The Master's Dissertation Template available as below mentioned link

([Link: Masters Dissertation Template 2019](#))

## **7. Academic and Administrative Procedures for the Approval of the Thesis**

The MSc Construction Project Management (MSc CPM) Program at the Department of Civil Engineering, College of Engineering, King Khalid University follows a structured academic and administrative process for the approval and defense of the thesis. These procedures ensure the quality, integrity, and academic rigor of MSc research before the awarding of the degree.

### **7.1. Submission of Thesis for Approval**

- Once the student completes the preparation of the thesis, the supervisor submits a formal report to the Head of the MSc CPM Program, along with a copy of the thesis, to initiate the discussion and defense process.
- The supervisor's report must include:
  1. The title of the thesis, number of chapters, and total page count.
  2. A statement on the extent of compliance with the approved research proposal.
  3. Confirmation of the thesis's validity for discussion and defense.
- Upon submission of the supervisor's report and confirmation of the thesis's completion and validity, the student's official period of registration and supervision concludes.

### **7.2. Formation of the Thesis Defense Committee**

- The Department Council proposes the members of the Thesis Defense Committee.
- It is highly recommended that the student publish a scientific paper derived from the thesis in a recognized scientific journal or present it at a local or international conference as part of their academic and professional development.
- The Department Council forwards the request to the College Council for formal approval of the formation of the Thesis Defense Committee.
- The thesis defense must be scheduled within a maximum of three months from the date of the committee formation.

- The Deanship of Research and Graduate Studies of must receive a formal notification regarding the formation of the Thesis Defense Committee.

### **7.3. Thesis Defense and Evaluation**

- The Thesis Defense Committee makes its final decision for thesis approval.
- Within one week from the date of the defense, the Thesis Defense Committee prepares a detailed report, signed by all committee members, and submits it to the Head of Department.
- The committee's final recommendation will fall into one of the following categories:
  - (a) Approval of the thesis and recommendation for the awarding of the degree.
  - (b) Approval with required amendments: The thesis is accepted with minor modifications that do not require another defense. One member of the Thesis Defense Committee is designated to confirm the required amendments. The student is given a maximum of three months to complete the corrections. In exceptional cases, the College Council may extend this period to six months.
  - (c) Major revisions required: If the committee identifies substantial deficiencies, the student must address them and defend the thesis again within a period set by the College Council (not exceeding one year from the date of the first defense).
  - (d) Rejection of the thesis: If the thesis does not meet academic standards, the committee disapproves it.

### **7.4. Submission of Final Reports and Appeals**

The Thesis Defense Committee's final report is submitted to the Dean of the College for final approval.

## 8. Thesis Defense/Examination:

The selection of the examination committee for a Master's thesis in CPM follows a structured process to ensure a balanced and qualified evaluation. The examination committee must consist of at least three members: the student's thesis supervisor, along with two other qualified faculty members from the Civil Engineering department or closely related fields. If the thesis covers multidisciplinary or industry-specific topics, the department may approve the inclusion of an external examiner, provided that the examiner has relevant academic or industry experience. All committee members are required to hold a Ph.D. and demonstrate expertise in construction project management or civil engineering. The committee's composition must be formally approved by the department head to confirm that the student's work will be evaluated by an appropriate and knowledgeable panel.

In order to proceed to the thesis defence, the student must first fulfil several requirements. They must have successfully completed all required coursework, totalling 30 credit hours (including 6 credit hrs for thesis). Additionally, the student is required to submit their final thesis, which must include all key components such as field studies, feasibility studies, construction project analysis, and an overall project evaluation. This thesis must be submitted by the department's established deadline during the fourth semester. Furthermore, the student's supervisor must formally approve the thesis, ensuring that it meets the academic and research standards necessary to proceed to the defence stage. Without the supervisor's approval, the student cannot move forward with the defence.

Once the requirements are met, the examination procedures can commence. The examination must be scheduled in consultation with the department to ensure adequate time for the committee to thoroughly review the submitted thesis. During the defence, the student will give a formal presentation of their research, explaining the problem, objectives, methodology, findings, and conclusions. The presentation should also emphasize the practical application of their research within real-world construction project scenarios. Following the presentation, the committee will conduct an oral examination, where the student will answer questions about the research methodology, project work, analysis, and conclusions. This segment assesses the student's depth of

understanding, technical accuracy, and ability to apply construction project management principles to practical problems.

The approval process for the thesis is based on a pass/fail system, with no fixed grade assigned. After the oral examination, the committee will deliberate privately to discuss the student's performance. A unanimous or majority decision is required to pass the thesis. The committee's decision will be communicated to the student immediately after deliberation. If the student passes, they may be required to make minor revisions to the thesis before submitting the final version. Should the student fail the defence, detailed feedback will be provided, and they may be granted one additional semester to revise the thesis and resubmit it for defence.

The evaluation of the thesis is based on several key criteria. The committee will assess the technical accuracy and depth of the research, ensuring that the thesis demonstrates a high level of competence in civil engineering project, construction planning, and evaluation. The quality of the research methodology and its practical application to real-world construction scenarios are also critical elements of the evaluation. Additionally, the student's presentation skills and ability to clearly articulate complex concepts will be scrutinized, as effective communication is essential in the field of construction project management. Finally, the student's ability to respond to questions from the committee, reflecting their critical thinking and depth of understanding, is an important factor in determining the outcome of the defence.

This structured process ensures that the thesis defence is conducted fairly and rigorously, with clear expectations for both the student and the committee. By focusing on the practical application of project management principles and maintaining high academic standards, the defence process validates the student's readiness to enter the field of construction project management with a Master's degree

## **9. Thesis Evaluation Forms**

The thesis is evaluated using the official template proposed by King Khalid University (Appendix A). This template has been modified by adding detailed sub-items to make it easier to link the evaluation to the Program Learning Outcomes (PLOs). The detailed items for evaluating the thesis are provided in Appendix B.

## 10. Evaluation Fairness, Objectivity, and Credibility

The MSc Construction Project Management (MSc CPM) Program at the Department of Civil Engineering, College of Engineering, King Khalid University follows a structured and transparent approach to ensure fairness, objectivity, and credibility in the evaluation and defense of MSc theses. The detailed procedures are as follows:

1. The time between the acceptance of the research proposal and the submission of the thesis should not exceed two semesters.
2. Based on the recommendations of the Department Council and the College Council, the Thesis Defense Committee is approved by the Deanship of Research and Graduate Studies.
3. The Master's Thesis Defense Committee must fulfill the following requirements:
  - The committee must comprise an odd number of members, with the thesis advisor serving as the chairperson.
  - The committee must include at least three members.
  - The advisor and co-advisor (if applicable) must not constitute a majority in the committee.
  - Committee members must meet the eligibility criteria for thesis supervision.
  - At least one member of the committee must hold the rank of professor or associate professor.
  - The committee's decisions must be based on a majority vote, with at least two-thirds approval of the total number of members.
4. If the thesis advisor is unable to participate in the defense committee due to circumstances such as resignation, prolonged absence, or passing away, the Department Council must propose a replacement, subject to approval by the College Council and the Deanship of Research and Graduate Studies.

5. A final evaluation report must be prepared and signed by all members of the Thesis Defense Committee. This report must be submitted to the Head of the Department (HoD) within one week from the date of the public defense.
6. The final evaluation report must include one of the following recommendations:
  - (a) Approval of the thesis and recommendation for the awarding of the degree.
  - (b) Approval with required amendments: The thesis is accepted with minor modifications that do not require another defense. One member of the Thesis Defense Committee is designated to confirm the required amendments. The student is given a maximum of three months to complete the corrections. In exceptional cases, the College Council may extend this period to six months.
  - (c) Major revisions required: If the committee identifies substantial deficiencies, the student must address them and defend the thesis again within a period set by the College Council (not exceeding one year from the date of the first defense).
  - (d) Rejection of the thesis: If the thesis does not meet academic standards, the committee disapproves it.
7. The HoD must submit the official Thesis Committee report to the College Council and the Deanship of Research and Graduate Studies no later than three weeks after the date of the defense.
8. The Deanship of Research and Graduate Studies must submit the final recommendations for awarding the degree to the University Council for formal approval.

## **11. Thesis Quality Control**

The MSc Construction Project Management (MSc CPM) Program at the Department of Civil Engineering, College of Engineering, King Khalid University implements a comprehensive quality control framework to ensure that MSc theses meet academic, scientific, and professional standards.

### **10.1 Quality Control Procedures**

The quality of MSc theses is maintained through the following measures:

a) Ensuring the Quality of the Research Proposal – The research proposal undergoes a rigorous review process at the initial stage to ensure clarity, feasibility, and academic relevance. The procedures followed during proposal preparation (see Section 1.3) ensure that students develop a well-structured and methodologically sound research plan.

b) Checking the Quality of Thesis Structure and Formatting – The thesis must adhere to the approved academic structure and formatting guidelines (see Section 1.4). This includes proper organization of chapters, citation compliance, and adherence to the official King Khalid University Thesis Template.

c) Scientific Rigor and Content Evaluation – The scientific quality of the thesis is thoroughly reviewed by an evaluation committee, ensuring that the research meets academic integrity and scholarly excellence.

- An investigation committee is established to ensure objective assessment, eliminating potential bias or courtesy in evaluation.
- The scientific quality of the thesis is further validated by requiring students to produce research publications derived from their thesis findings, contributing to the broader academic community.

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## **10.2 Improvement Actions**

Continuous improvements in thesis quality are ensured through structured feedback mechanisms. Feedback is collected from:

- Graduate Student Surveys – MSc students provide input on their thesis experience, challenges, and areas for enhancement (Survey form Link).
- Thesis Supervisors – Supervisors contribute feedback based on their experience in guiding students through the research process (Survey form Link).
- MSc Recent Alumni – Graduates provide insights into how the research and thesis process prepared them for professional and academic careers (Survey form Link).

## 12. MSc. Thesis CLO Linkage to the PLOs

Code	Course Learning Outcomes (CLO)	Code of CLOs aligned with program (PLO)	Assessment Methods
<b>1.0</b>	<b>Knowledge and understanding</b>		
1.1	Define the in-depth fundamental knowledge on the fundamental design of complex project management problems.	K1: Acquire a deep understanding of the principles, practices and recent development in construction project management, including project planning, scheduling, cost estimation, risk management, and sustainable construction, eco-friendly practices	Direct Assessment: Rubrics based assessment
1.2	Define and understand the research methodology and inquiry techniques related to project management problems.	K1: Acquire a deep understanding of the principles, practices and recent development in construction project management, including project planning, scheduling, cost estimation, risk management, and sustainable construction, eco-friendly practices	Direct Assessment: Rubrics based assessment
<b>2.0</b>	<b>Skills</b>		
2.1	To identify, formulate, and solve complex engineering problems by applying principles of project management.	S6: Demonstrate their ability to apply their knowledge by creating comprehensive project plans, monitoring progress, and implementing necessary adjustments to ensure projects are completed on time and within budget	Direct Assessment: Rubrics based assessment
2.2	To solve project management problems based on public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.	S4: Identify, assess, and mitigate risks associated with construction projects to minimize disruptions and cost overruns.	Direct Assessment: Rubrics based assessment
2.3	To communicate effectively (oral/written).	S5: Communicate effectively using oral and written skills for interacting with stakeholders, clients, contractors, and project teams.	Direct Assessment: Rubrics based assessment

Code	Course Learning Outcomes (CLO)	Code of CLOs aligned with program (PLO)	Assessment Methods
2.4	To develop and conduct appropriate experimentation, collect data, analyze, and interpret the unknown factors responsible for providing an optimal solution to construction project management problems.	S1: The ability to conduct research, analyze data, and apply critical thinking skills to solve complex construction project management problems.	Direct Assessment: Rubrics based assessment
2.5	An ability to function effectively on a team to meet objectives.	S2: Synthesize cutting-edge project management methodologies, economic analysis, and multidisciplinary team leadership to drive technological innovation and sustainability in construction practices.	Direct Assessment: Rubrics based assessment
2.6	An ability to conduct sound research in Construction Project Management by utilizing appropriate research methods	S1: The ability to conduct research, analyze data, and apply critical thinking skills to solve complex construction project management problems.	Direct Assessment: Rubrics based assessment
<b>3.0</b>	<b>Values, autonomy, and responsibility</b>		
3.1	Demonstrate a professional and ethical deal with all stakeholders in the construction activities and make responsible decisions.	<b>V1:</b> Recognize ethical and professional obligations in construction project management scenarios and adhere to the ethical standards and professional norms of the field to make informed decisions.	Direct Assessment: Rubrics based assessment
3.2	Engage in lifelong learning and professional development in the field of construction project management.	<b>V2:</b> Engage in lifelong learning and professional development in the field of construction project management.	Direct Assessment: Rubrics based assessment

## 13. Direct Assessment: Rubrics based assessment

- Measuring students' outcomes in master's thesis using rubrics (as a tool)

### A. Student outcomes

The key performance indicators (KPIs) have been developed for each learning outcomes (K1, K2, S1, S2, S3, S4, S5, S6, V1 and V2) to measure and assess the student outcomes. The KPIs for each learning outcomes are described as follows (below sub section).

#### **Key Performance Indicators (KPIs) For Student Outcomes**

**CLO1: Define the in-depth fundamental knowledge on the fundamental design of complex project management problems.**

*CLO1.1 Knowledge of processes, materials, techniques, practices, of Construction Management*

*CLO1.2: Memorized the conventions and/or terminology of Construction Management*

**CLO2: Define and understand the research methodology and inquiry techniques related to project management problems.**

*CLO2.1 Knowledge of research methodology and inquiry techniques*

*CLO2.2: Selection of Appropriate Methods*

**CLO3: To identify, formulate, and solve complex engineering problems by applying principles of project management.**

*CLO3.1. Solve practical problems using theoretical concepts and principles of engineering, science, and mathematics*

*CLO3.2. Use appropriate resources required to solve problems*

**CLO4: To solve project management problems based on public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.**

*CLO4.1 Aware of the societal, health, cultural issues, legal management, sustainability and safety and the consequent responsibility reverent to Construction Management*

*CLO4.2 Collected data to be documented*

*CLO4.3 Read technical periodicals and journals relevant to construction management*

*CLO4.4 Analyze and interpret data using as per theory*

**CLO5: To communicate effectively (oral/written)**

*CLO5.1 Effectively present the written work and use of data, graphs, and diagrams*

*CLO5.2. Plan presentation with appropriate technical content as per allocated time*

**CLO6: To develop and conduct appropriate experimentation, collect data, analyze, and interpret the unknown factors responsible for providing an optimal solution to construction project management problems.**

*CLO6.1: Develop the theoretical model/tasks of realistic management issues*

*CLO6.2. Analyze and interpret model data as per theory*

**CLO7: An ability to function effectively on a team to meet objectives.**

*CLO7.1 Develop team work plans and allocate resources, tasks and meet objectives*

*CLO7.2 Participate and function effectively in team work projects.*

**CLO8: An ability to conduct sound research in Construction Project Management by utilizing appropriate research methods**

*CLO8.1. Know adequate research skills in Construction Project Management*

*CLO8.2 Utilize periodicals/ journals and resources to stay current with research and development in Civil engineering*

*CLO8.3. Able to write a professional technical report.*

*CLO8.4 Conduct effective oral technical presentations to target audiences*

**CLO9: Demonstrate a professional and ethical deal with all stakeholders in the construction activities and make responsible decisions.**

*CLO9.1 Be disciplined, professional, and collegial and complete assignment as per the deadline*

*CLO9.2. Understand ASCE/SBC Code of Ethics*

*CLO9.3 Recognize the impact engineering solutions have on the global environment, economy and society*

**CLO10: Engage in lifelong learning and professional development in the field of construction project management**

*CLO10.1 Commitment to Lifelong Learning*

*CLO10.2 Application of New Knowledge*

*CLO10.3 Awareness of Industry Trends*

*CLO10.4 Contribution to Professional Growth*

## **A2. The Rubrics for MSc. CPM Student Outcomes**

Student performance was calculated using 10 rubrics (CLO1 to CLO10). It was agreed to use a 3 level scale, unsatisfactory, developing and Satisfactory. It was also decided to give description to each rubric in the 3 different scales to ensure all faculty use the same assessment criteria. The same rubric at different milestones in the program to measure the 10 student outcomes was used. The construction project management rubrics used to measure the student outcomes are listed below.

**CLO1: Define the in-depth fundamental knowledge on the fundamental design of complex project management problems.**

<b>KPIs</b>	<b>Satisfactory (85-100%)</b>	<b>Developing (70-84%)</b>	<b>Unsatisfactory (&lt;70%)</b>
<b><i>CLO1.1 Knowledge of processes, materials, techniques, practices, of Construction Management</i></b>	Use successfully Knowledge of processes, materials, techniques, practices of Construction Management	Does not think holistically while using knowledge of processes, materials, techniques, practices, of Construction Management	Does not understand the processes, materials, techniques, practices, of Construction Management
<b><i>CLO1.2: Memorized the conventions and/or terminology of Construction Management</i></b>	Memorized correctly the conventions and/or terminology of Construction Management	Memorized partially the conventions and/or terminology of Construction Management	Memorized the conventions and/or terminology of Construction Management terms incorrectly or not at all

**CLO2: Define and understand the research methodology and inquiry techniques related to project management problems.**

<b>PIs</b>	<b>Satisfactory (85-100%)</b>	<b>Developing (70-84%)</b>	<b>Unsatisfactory (&lt;70%)</b>
<b><i>CLO2.1 Knowledge of of research methodology and inquiry techniques</i></b>	Use successfully Knowledge of research methodology and inquiry techniques	Does not think holistically while using Knowledge of research methodology and inquiry techniques	Does not understand research methodology and inquiry techniques
<b><i>CLO2.2: Selection of Appropriate Methods</i></b>	Selects the most appropriate research methods for complex project management problems, providing strong justification.	Selects research methods but provides limited justification for their appropriateness.	Selects inappropriate or poorly suited research methods with little to no justification.

**CLO3: To identify, formulate, and solve complex engineering problems by applying principles of project management**

<b>KPIs</b>	<b>Satisfactory (85-100%)</b>	<b>Developing (70-84%)</b>	<b>Unsatisfactory (&lt;70%)</b>
<b><i>CLO3.1. Solve practical problems using theoretical concepts and principles of engineering, science, and mathematics</i></b>	Can relate theoretical concepts to practical problem solving	Connects theoretical concepts to practical problem-solving when provoked	Unable to connects theoretical concepts to practical problem-solving
<b><i>CLO3.2. Use appropriate resources required to solve problems</i></b>	Uses proper resources to locate information needed to solve problems	Uses limited resources to solve problems	Uses no resources to solve problems

**CLO4: To solve project management problems based on public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.**

<b>KPIs</b>	<b>Satisfactory (85-100%)</b>	<b>Developing (70-84%)</b>	<b>Unsatisfactory (&lt;70%)</b>
<b><i>CLO4.1 Aware of the societal, health, cultural issues, legal management, sustainability and safety and the consequent responsibility reverent to Construction Management</i></b>	Familiar with the current trends in societal, health, cultural issues, legal management, sustainability and safety and the consequent responsibility	Often familiar with the current trends in societal, health, cultural issues, legal management, sustainability and safety and the consequent responsibility	Unaware of current trends in societal, health, cultural issues, legal management, sustainability and safety and the consequent responsibility
<b><i>CLO4.2 Collected data to be documented</i></b>	Carefully documents data collected	Data collected are not all documented, units are missing, or some measurements are not recorded	Data are poorly documented
<b><i>CLO4.3 Read technical periodicals and journals relevant to construction management</i></b>	Reads and is familiar with the content of periodicals/journal that are relevant to construction management	Aware of the existence of technical periodicals – wouldn't know where to look to find them	Not familiar with any technical periodicals
<b><i>CLO4.4 Analyze and interpret data using as per theory</i></b>	Able to analyze and interpret data using as per theory	Misinterprets data using as per theory; makes errors	Cannot analyze and interpret data using as per theory

**CLO5: To communicate effectively (oral/written)**

<b>KPIs</b>	<b>Satisfactory (85-100%)</b>	<b>Developing (70-84%)</b>	<b>Unsatisfactory (&lt;70%)</b>
<b><i>CLO5.1 Effectively present the written work and use of data, graphs, and diagrams</i></b>	Organizes written materials in a proper sequence to enhance the reader's comprehension (paragraphs, subheading, etc.) and Uses graphs, tables, and diagrams	Material are generally organized well, but paragraphs combine multiple thoughts, and graphs, tables, and diagrams disorganized	Little or no structure or no organization; no subheadings or proper paragraph structure used and without graphs, tables, and diagrams
<b><i>CLO5.2 Plan presentation with appropriate technical content as per allocated time</i></b>	Presentation has enough detail and technical content for the time constraint and the audience	Presentation contains excessive or insufficient detail for time allowed or level of audience	Unorganized way of Presentation; omits key results during presentation

**CLO6: To develop and conduct appropriate experimentation, collect data, analyze, and interpret the unknown factors responsible for providing an optimal solution to construction project management problems.**

<b>KPIs</b>	<b>Satisfactory (85-100%)</b>	<b>Developing (70-84%)</b>	<b>Unsatisfactory (&lt;70%)</b>
<b><i>CLO6.1: Develop the theoretical model/tasks of realistic management issues</i></b>	Develops theoretical model/ tasks, decomposition of work into subtasks independently	Uses theoretical model/ tasks, with guidance	No theoretical model/ tasks; haphazard approach
<b><i>CLO6.2. Analyze and interpret model data as per theory</i></b>	Correct interpretation of physical significance of theory or variable involved	Partially correct interpretation of physical significance of theory or variable involved with guidance	Interpretation incorrectly or requires frequent supervision

**CLO7: An ability to function effectively on a team to meet objectives.**

<b>KPIs</b>	<b>Satisfactory (85-100%)</b>	<b>Developing (70-84%)</b>	<b>Unsatisfactory (&lt;70%)</b>
<b><i>V2.1 Develop team work plans and allocate resources, tasks and meet objectives</i></b>	Understands and applies proper and accurate team work plans and allocate resources and tasks	Shows limited and less than adequate ability to develop team work plans and allocate resources and tasks	Fails to develop team work plans and allocate resources and tasks
<b><i>V2.2 Participate and function effectively in team work projects.</i></b>	Understands and participates properly and function effectively in team work projects	Shows limited and less than adequate ability to participate and function effectively in team work projects	Fails to participate and function effectively in team work projects

**CLO8: An ability to conduct sound research in Construction Project Management by utilizing appropriate research methods**

<b>KPIs</b>	<b>Satisfactory (85-100%)</b>	<b>Developing (70-84%)</b>	<b>Unsatisfactory (&lt;70%)</b>
<b><i>CLO8.1. Know adequate research skills in Construction Project Management</i></b>	knowledgeable in research skills, issues and approaches useful to Construction Project Management	Insufficient knowledge in research skills, issues and approaches useful to Construction Project Management	Has no knowledge of research skills, issues and approaches useful to construction project management
<b><i>CLO8.2 Utilize periodicals/journals and resources to stay current with research and development in Civil engineering</i></b>	Understands and applies proper and accurate ability to utilize periodicals and resources to stay current with research and development in civil engineering	Shows limited and less than adequate ability to utilize periodicals and resources to stay current with research and development in civil engineering	Fails to utilize periodicals and resources to stay current with research and development in civil engineering
<b><i>CLO8.3. Able to write a professional technical report.</i></b>	Understands and writes an accurate and professional technical report	Shows limited and less than adequate ability to write a professional technical report	Fails to write a professional technical report

<b><i>CLO8.4 Conduct effective oral technical presentations to target audiences</i></b>	Understands and conducts proper and accurate effective oral technical presentations to target audiences	Shows limited and less than adequate ability to conduct effective oral technical presentations to target audiences	Fails to conduct effective oral technical presentations to target audiences
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**CLO9: Demonstrate a professional and ethical deal with all stakeholders in the construction activities and make responsible decisions.**

<b>KPIs</b>	<b>Satisfactory (85-100%)</b>	<b>Developing (70-84%)</b>	<b>Unsatisfactory (&lt;70%)</b>
<b><i>CLO9.1 Be disciplined, professional, and collegial and complete assignment as per the deadline</i></b>	Punctual, professional, and collegial; attends classes regularly and timely assignment submission	Sometimes exhibits unprofessional behavior; is sometimes absent from class without reason	Frequently absent from class and is generally not collegial to fellow students, staff, and faculty
<b><i>CLO9.2. Understand ASCE/SBC Code of Ethics</i></b>	Student understands and abides by the ASCE/SBC Code of Ethics	Student is aware of the existence of the ASCE/SBC Code of Ethics and other bases for ethical behavior	Student is not aware of any codes for ethical behavior
<b><i>CLO9.3 Recognize the impact engineering solutions have on the global environment, economy and society</i></b>	Understands and applies proper and accurate ability to recognize the impact engineering solutions have on the global environment, economy and society	Shows limited and less than adequate ability to recognize the impact engineering solutions have on the global environment, economy and society	Fails to recognize the impact engineering solutions have on the global environment, economy and society

**CLO10: Engage in lifelong learning and professional development in the field of construction project management**

*V2.1 Commitment to Lifelong Learning*

*V2.2 Application of New Knowledge*

*V2.3 Awareness of Industry Trends*

*V2.4 Contribution to Professional Growth*

<b>KPIs</b>	<b>Satisfactory (85-100%)</b>	<b>Developing (70-84%)</b>	<b>Unsatisfactory (&lt;70%)</b>
<b><i>CLO10.1 Commitment to Lifelong Learning</i></b>	Shows a strong commitment to seeking out learning opportunities, showing a clear plan for continuous improvement.	Participates in learning opportunities when required, but shows limited initiative in seeking additional growth.	Rarely engages in any learning opportunities and lacks an understanding of the need for continuous learning.
<b><i>CLO10.2 Application of New Knowledge</i></b>	Applies newly acquired knowledge to enhance work performance, though improvements	Occasionally applies new knowledge, but with minimal impact on professional practice.	Struggles to apply newly acquired knowledge, showing little change in professional performance.
<b><i>CLO10.3 Awareness of Industry Trends</i></b>	Aware of general industry trends and innovations in construction project management	Shows limited awareness of industry trends and rarely applies them to practice.	Displays little knowledge of current trends, with no effort to apply new industry developments.
<b><i>CLO10.4 Contribution to Professional Growth</i></b>	Actively contributes to the advancement of the construction project management field through publications, speaking engagements, or participation in professional bodies.	Limited involvement in advancing the field, with minimal contribution to professional communities.	No involvement in contributing to the professional community or advancing the construction project management field.

### **Assessment Cycle**

The assessment process cycle moves through the following phases shown in figure 3.1. At the beginning of the semester, any faculty who has an assessment assignment will receive a letter from the Program Coordinator of Quality, Dr. Mohd Ahmed describing the assessment work that needs to be done at his assigned course. This will include details the following:

- Students' outcome that need to be measured at the course.

- Rubrics that need to be used to measure the student outcome
- Suggested assessment method
- Directions in how to write a short assessment report detailing the five assessment phases (measure, results, analysis, recommendations and actions).
- Directions in how to use the rubric module in blackboard system to measure student outcomes.
- Keeping samples of student work at the three different levels.

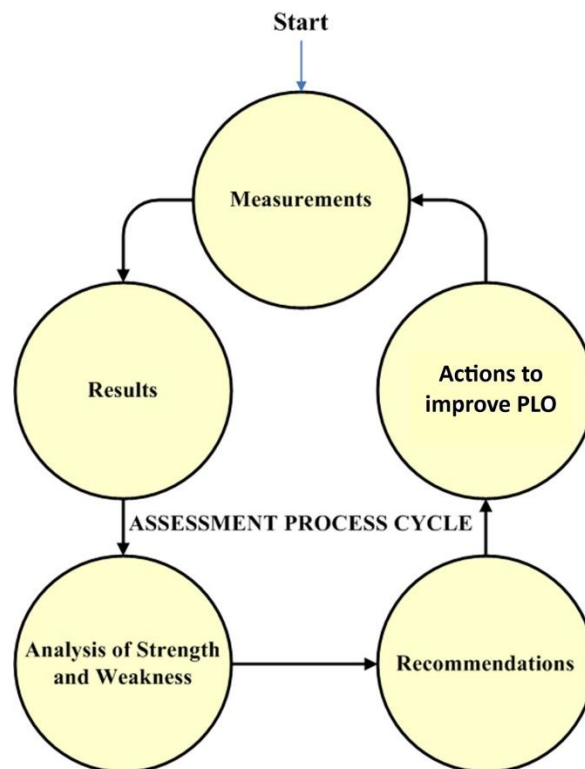


Figure1: Assessment process cycle for assessing PLO

## 14. Appendices

### Necessary forms for MSc Thesis

- [Template \(Link\)](#) تقرير صلاحية الرسالة للمناقشة
- [Template \(Link\)](#) تقرير لجنة المناقشة والحكم
- [Template \(Link\)](#) قرار لجنة المناقشة والحكم
- [Template \(Link\)](#) نموذج إعلان نتيجة مناقشة
- [Template \(Link\)](#) نموذج طلب صرف مكافأة مناقش