Prince Sultan Military College of Health Sciences
VICE DEANSHIP OF POSTGRADUATE STUDIES AND RESEARCH

Guidelines for Writing Graduation Research Project

Overview

The graduation research project guidelines aim to explain to students the nature of their theme, broader disciplinary perspectives, the relationship between published material, and students' main contribution to their current work. A student is expected to conduct rigorous and in-depth research of the discipline that will be reported in their graduation research project. Graduation research projects prepared by the students at Prince Sultan Military College of Health Sciences (PSMCHS) shall be subjected to a substantial review process in terms of scientific quality and ethical integrity. The ultimate goal of graduation research projects is to review and prioritize topics aimed at improving the health of the local and international communities and promoting knowledge that will help to improve the healthcare system in the Kingdom of Saudi Arabia. Students must obtain approval for their graduation projects (IRB and project coordinator) before embarking on the implementation of graduation research projects. The project should explain how the particular topic/subject arose, the methodology, and the process of implementation. This should be strong evidence that the project is feasible and commendable.

A. INSTRUCTIONS FOR THE STUDENTS AT PSMCHS

The following list is the proposed outline of the Graduation Research Project:

1. **Cover Page (Hardbound)**

   - College Logo
   - Title of Graduation Research Project
   - Academic Year (e.g. AY 2019-2020)

2. Title Page

- Title of Graduation Research Project
- Author name, department, affiliation
- Project Coordinator/Supervisor name, affiliation (Appendix 1)

3. Contents Page

- Including main chapters, references, and appendices

4. Abstract

- A succinct summary of the background and rationale, objectives, study design, study sample, methodology, phases of research, and results.
- The abstract should not exceed 300 words.

5. Background/Introduction (Chapter I)

- The scientific background (i.e., secondary data analysis) of the study with a clear definition and statement of the research problem.
- Why does the research question need to be addressed? (including critical evaluation of previous studies)
- This will emphasize the student's understanding of the previous studies and identification of any critical gaps in the current knowledge/literature.
- The background should be focused on the particular question or issue and critical analysis of existing literature/research.
- It should not exceed 1 ½ - 2 pages.

6. Rationale for Research

- What is the rationale, which led to this project?
- Formulate a specific statement of the problem.
- The problem should be simple and manageable do not promise more than can be achieved.
- One paragraph (15-20 lines) with a few elaborations should be sufficient.

7. Aim and Objectives of Research

- The aim and objectives should be clear, precise, and brief and reflect the purpose of the research.
- Aim - what the student expects to achieve upon completion of the project.
- Objective - action(s) the student will take in order to achieve the aim.
- When writing aim and objectives, the student is expected to consider the following factors:
  i. Specific: talk in precise and clear language about what the student is going to do.
  ii. Measurable: how will the student know when he/she has achieved the aim. iii. Achievable: make sure that the aim of the research is not overly ambitious.
  iii. Realistic: recognize the time and resource constraints that come with doing research and do not attempt to do too much.
- The aim answers the questions, 'what are you doing?' The objectives answer the question, 'how are you doing it?'

8. Hypothesis

Upon completion of the research project rationale, aim, and objectives, the students are required to outline the principal questions of the research that will address objectives and achieve the aim of the final project.

- Ask a specific question(s) and come right to the point.
- What specific issue(s) or questions will the research project address?
- The question should be written, short, and unambiguous.
- Questions should be composed of specific and straightforward language and demand one answer on one dimension.

9. Literature Review (Chapter II)

- A synthesized literature review, which clearly articulates a thorough understanding of the research area and previous studies undertaken:
    i. Demonstrate a familiarity with the topic and scholarly context.
    ii. The student is expected to position himself/herself with other researchers and theorists.
    iii. Show how the graduation research project addresses a gap or contributes to a debate.
    iv. A summary of the publication's main points.
    v. A discussion of gaps in research.
    vi. An evaluation of the publication's contribution to the topic.
    vii. Move from the more general to the more specific studies
- Plagiarism Policy:
    i. Researchers who adopt the work that has been investigated and reported by other researchers need to ensure that they acknowledge or reference the source of the work.
    ii. A match of 25% may be acceptable, as long as the work is presented and referenced correctly.
    iii. Conversely, a match of only 4% will indicate that the work is underpinned by insufficient sources (for details, please see Academic Dishonesty/Plagiarism Policy of PSMCH).

10. Methodology/Research Design (Chapter III)

- The methods section should describe the activities necessary for the completion of the project.

- Highlight the sequential stages, an approach adopted (with rationale), potential problem areas, and risk mitigation strategy (if things do not go to plan).

- The methodology should be presented in the same order as that of the objectives of the project.

- Details should be provided about the use of different measuring devices and techniques, as well as data collection and analysis procedures.

- Details of the planned statistical analysis should be provided. Details of the questionnaire, if any, should be provided at the end in the Appendices section.

- In case of involving animal experiments, the experience of the person(s) who is/are going to be involved in these studies should be mentioned, including his training and expertise in animal handling and care.

11. Data Analysis and Results (Chapter IV)

- The procedure for the collection of data (software that will be utilized).

- The projected plans for analysis of the data, including the tools that will be used to perform the analysis.

- Sample size calculation, where appropriate, should also be provided.

- Description of how this analysis will support or refute the hypothesis(es), and answer research question(s) should be included.

12. Discussion (Chapter V)

- In this section, the student needs to demonstrate his/her ability as a researcher to think critically about the study issue.

- Develop original explanations to objectives, based on the findings and methods through a profound understanding of the research problem.

- The student needs to present the importance of his/her study and how the findings can contribute to filling existing gaps in the field.

- If appropriate, the discussion is also a section where the student state how the findings from the study revealed new gaps in the literature that had not been previously exposed or adequately described.

13. Conclusions/Recommendations (Chapter VI)

- The importance and value of the proposed research project should be described in detail.

- How the results of the study will influence or contribute to the welfare of society.

- How this project can be implemented (i.e., the introduction of new technology to the Kingdom, benefits from the implementation).

14. References

- The list of references should be placed on a separate page(s) at the end of the research project manuscript. • List every citation that has been used in the project (i.e., academic works, cited throughout the project). • References should be cited in the standard style (Harvard Style) used in scientific/technical publications (see Bibliography):

Example: Dobson, H., (2006). Mister Sparkle meets the 'Yakuza': depictions of Japan in The Simpsons. Journal of Popular Culture [online]. 39(1), 44–68. [Viewed 5 October 2015]. Available from: doi: 10.1111/j.1540-5931.2006.00203.x

- To facilitate reference and citation procedures students are recommended to use special software (e.g. EndNote, Reference Manager, Mendeley, etc.)

15. Appendices

- A list of additional documents/materials attached to the project (e.g., IRB, copy of research tool/questionnaire, consent forms/letters).

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B. THE RESEARCH PROJECT DESIGN

In writing a graduation research project, the student should follow the instructions below:

1. Writing Style and Formatting

- The research projects should be consistent within the manuscript in relation to grammar, spelling, and syntax.

- Avoid the use of first-person pronouns. (e.g., 'I will'… or 'we will…' say something like 'The researcher will…' or "The research team will…").

- Write short, focused, and coherent paragraphs. Each paragraph should have a clearly stated topic sentence that describes the main issue covered in the paragraph. The rest of the sentences should provide discussions on the topic sentence, or answer the question raised in the topic sentence.

2. Title Page

- All text on the title page should be centered vertically and horizontally (see Appendix.

- The title page is not counted in any page numbering.

- The cover page should be standardized and students should use PSMCHS official logo colors.

- For department specifications, please consult with the head of the department.

3. Page Layout and Design

The number of pages is a minimum of **20 pages (including all the chapters I-IV) and a maximum of 80 pages (excluding appendices).**

- Organize all pages of the graduation research project with a margin of 1 inch from the top, bottom, and right of the page, and a margin of 1.5 inches from the left of the page.

- Pages should be numbered at the bottom right.

- Pagination begins on the first page of Chapter I (although the page number is not listed on page 1).

- The printed graduation research project must be one-sided.

- Text is double-spaced (except for long quotations and the bibliography, which are single-spaced.

- Leave one blank line between a section heading and the text that follows it. • Do not right-justify text. Use ragged-right.

4. Layout & Font

- Text font size is 12 pts. for the body and 14 pts. and bold for titles.

- Text font should be Times New Roman.

- The same font must be used throughout the body text, except tables and graphs may use a different font.

- Insert Chapter divider should be centered, Times New Roman, bold and 40 pts. • Figures and tables should have a referral caption number and a short description. Caption size is 10 pts., bold, and single line spacing.

- Figure captions are placed below the figure and centered, while table captions are placed above the table.

- Diagrams and figures must be plotted using any of the available software.

- If table, figure, or illustration is too wide for the page, Landscape orientation may be used. If the graduation research project includes equations, each equation must be written using a proper, standard scientific notation. Each equation must be centered on a separate line of text and numbered on the right, using Chapter number and equation number, separated by a dot, as in the following example: (3.1) (3 is the number of Chapter, 1 is the number of Equation)

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

- Tables, figures, illustrations, and equations should be referenced and discussed within the text; abbreviation can be used as Figure 2; Table 2; Eq. 2.

5. Appendices

Supporting documents for the graduation research project (e.g., questionnaire, consent form, etc.).

C. CHECKLIST: WHAT TO INCLUDE

The final graduation research project should include:

1. **Cover Page**
2. **Title Page**
3. **Table of Contents**
4. **List of Abbreviations**
5. **List of Tables**
6. **List of Figures**
7. **List of Equations**
8. **List of Appendices**
9. **Acknowledgments (optional)**
10. **Dedication (optional)**
11. **Abstract**
12. **Background/Introduction**
13. **Literature Review**
14. **Rationale**
15. **Aim and Objectives**
16. **Research Questions/Hypothesis**
17. **Methodology/Research Design**
18. **Data analysis and Results**
19. **Discussion**
20. **Conclusions/Recommendation**
21. **References**
22. **Appendices**

D. BIBLIOGRAPHY

1. Azzam Y.A. 2014. Graduation Project Guide. Majmaah University. Available from: http://mu.edu.sa

2. McGranaghan, M., 2011. Guidelines on writing a research proposal. Retrieved May, 13, p.2011.

3. Polit, D.F. and Beck, C.T., 2004. Nursing research: Principles and methods. Lippincott Williams & Wilkins.

4. 4. Reason, P., and Marshall, J., 2001. On working with graduate research students. 2006). Handbook of action research: The concise paperback edition, pp.315-321.

5. Tang, B.L. and Gan, Y.H., 2005. Preparing the senior or graduating student for graduate research. Biochemistry and Molecular Biology Education, 33(4), pp.277-280.

6. The University of Sheffield. 2020. Harvard Referencing. Available from: https://www.librarydevelopment.group.shef.ac.uk/referencing/harvard.html

7. Torrance, M., Thomas, G.V. and Robinson, E.J., 1994. The writing strategies of graduate research students in the social sciences. Higher education, 27(3), pp.379-392.

Message for the Faculty Members and Students of PSMCHS

These guidelines are standards that should be considered and followed by the students at PSMCHS and project coordinators/supervisors. However, they do not guarantee the successful completion of a graduation research project submitted by students. By the time of graduation research project submission, students should have completed research aims/objectives/hypotheses/questions and methodology; mature and completed literature review; the main body of the research should be complete; data (if applicable) collection or practice-based work should be complete; the students are expected to clearly articulate and defend the uniqueness of his/her research and expected contribution; there is a plan for completion of the graduation research project within the expected timeline.

Closing Remarks

- Students and Faculty members at PSMCHS are aware that writing a graduation research project is not an easy task. However, it is feasible and rewarding. Since scientific research is a continuous process being conducted by several scholars, no study is expected to answer all of the questions in a particular field. In all cases, the graduation research project should demonstrate an understanding of specific issues, the nature of evidence and argument, and the relationships between practice, theory, and criticism.

- Students may be required to obtain approval for the graduation research project from the project coordinator/supervisor before the start of graduation projects. In this case, research funding institutions (if applicable) typically request detailed reports from those applying for funding.

- A good relationship between students and the project coordinator/supervisor is very important.

- For a successful graduation research project, clarity at all points of the study is imperative. Therefore, students must follow the directions of the project coordinator/supervisor and ask for clarification of particular points.
- Due dates/deadlines associated with the graduation research project submission should be respected and followed.
- For departmental specifications, students should contact their respected departments.
- At the completion of the graduation project, students are required to return all PSMCHS properties back to the college through their supervisors. Students must also submit all deliverables and outputs of the graduation projects so that others can easily reproduce their work or reuse all or part of their work in the future.
- The PSMCHS is the rightful owner of the copyright and all intellectual property rights of all student's work. Any tangible and intangible benefits (including publications, financial proceeds) from students' projects should be shared among students, faculty, and the PSMCHS based on the VDPSR Intellectual Property Policy –MC-PG-SR-08).

GRADUATION RESEARCH PROJECT TITLE

Student's Full Name

Submitted for a Bachelor's Degree at Prince Sultan Military College of Health Sciences

Supervisor:

Department:

Year

Appendix 2: Student Graduation Project Work Plan for Monitoring

BASIC GRADUATION PROJECT INFORMATION	
Name of Student(s)	
Name of Faculty Member Supervising the Graduation Project	
Name of Academic Program	
Academic Year	
Semester	

Objectives *(What do you want to achieve in your graduation project?)*	Actions *(How are you going to achieve the objectives?)*	Responsible *(Who is responsible for the actions?)*	Start Date *(When does work start, week and date?)*	Estimated Completion Date *(When will the project be completed, week and date?)*	Outcomes *(What are the expected results?)*	Remarks

Objectives (What do you want to achieve in your graduation project?)	Actions (How are you going to achieve the objectives?)	Responsible (Who is responsible for the actions?)	Start Date (When does work start, week and date?)	Estimated Completion Date (When will the project be completed, week and date?)	Outcomes (What are the expected results?)	Remarks

Submitted by:	Signed	Date
[Name of Faculty Member Supervising the Student Graduation Project]		
Reviewed by Name of Chair of Department		
Received by: Vice Deanship of Postgraduate Studies and Research		