**Systems Engineering Dissertation Proposal**

**Cover Page**

Title

*(Adequately descriptive, but short and to the point)*

Student’s Name

Names of Proposed Dissertation Committee - Supervisor

- Member

- Member

- Member

- External Member

*(include qualifications if not NPS faculty)*

**Introduction**

Background of the Problem

*(What developments are relevant to the problem? What created the problem? What is the context of the problem? What will happen if this topic is not addressed?)*

Statement of the Problem

*(What is the problem you want to address?)*

Objectives or Purpose of the Study

*(What do you hope to achieve?)*

Theoretical Framework

*(What is the scientific or technical context in which this problem will be addressed?)*

Research Hypotheses to be Tested or Questions to be Answered.

*(What specific hypotheses regarding the problem solution does the research propose to address or what specific questions do you want to answer with the research?)*

Importance of the Study

*(Why is this project worth doing? Who will benefit from its solution?)*

Scope of the Study

*(What will you do and what will you not do? What will not be investigated? What level of solution completeness is anticipated?)*

Definition of Terms

*(Explain any technical or specialist terms used in this proposal.*

*The review committee is unlikely to be expert in your topic.)*

**Prior Work**

Review of the Literature

*(What work has been done by others on your selected problem?)*

Assessment of Previous Work

*(What did this previous work accomplish and what did it fail to accomplish?)*

Novelty of Proposed Research

*(Exactly how does your proposed work differ from previous work? Why does it constitute an original contribution?)*

**Research Methods**

Research Design

*(In general how do you proposed to conduct your research project?)*

Research Procedures

*(What techniques do you plan to use? Why are they appropriate to your project? Why are other techniques being excluded?*

The Researcher’s Role

*(What is your role in this project? This is especially important if your project is part of a larger program of research.)*

Participants

*(Who else will participate in the research? Will the research involve human subjects? How will they be selected?)*

Data Sources

*(If existing sources of data such as databases will be used rather than collecting experimental data, what are those sources? How will they be obtained? How will they utilized?)*

Data Collection

*(If new data will be collected, how will this be done? What sort of data will be collected? By what methods?)*

Data Analysis

*(How will the data from the data sources and/or data collection be analyzed to extract the desired results?)*

Assumptions of the Study

*(What assumptions have you made in structuring your research or selecting the plan of research or methodologies?)*

Limitations of the Study

*(What a priori limitations will be placed on your study?)*

Human Experimentation Considerations

*(Will human experimentation be involved? If not, justify why the research is not human experimentation. If yes, discuss all aspects needed to obtain Institutional Review Board approval of your research project.)*

Potential Outcomes of the Research

*(What types of outcome do you expect to generate? What is the suggested target audience for your research results? DO NOT second guess the ultimate result of your research.)*

**Research Plan**

Plan for Conducting the Research

*(Provide a top-level step-by-step plan of your research project from conception to completion and documentation.)*

Proposed Schedule with Milestones

*(Provide a schedule for accomplishing the steps in your research plan.)*

Analysis of Resource Requirements and Availability

*(Demonstrate that you understand the resources needed to accomplish your project and that you have assured the availability of those resources.)*

**Tentative Outline of the Dissertation**

*(Adapt a generic dissertation outline to include section titles appropriate to your specific research.)*

**Outline for a Generic Systems Engineering Dissertation**

**Front Matter**

**Abstract**

**Chapter 1. Introduction**

Background of the Problem

Statement of the Problem

Objectives or Purpose of the Study

Theoretical Framework

Research Hypotheses to be Tested or Questions to be Answered.

Importance of the Study

Scope of the Study

Definition of Terms

**Chapter 2. Prior Work**

Review of the Literature

Assessment of Previous Work

Novelty of Proposed Research

**Chapter 3. Research Methods**

Research Design

Research Procedures

The Researcher’s Role

Participants

Data Sources

Data Collection

Data Analysis

Assumptions of the Study

Limitations of the Study

Human Experimentation Considerations

Potential Outcomes of the Research

Summary

**Chapter 4. Research Findings**

**Chapter 5. Conclusions, Discussion, and Suggestions for Future Research**

Summary

Conclusions

Discussion

Suggestions for Future Research

**Appendices (raw data, supporting analyses, etc.)**

**References**