

PROPOSAL GUIDELINE

GENERAL INSTRUCTION

- The proposal should address the Research Proposal Guidelines as outlined below. Incomplete proposals will be returned.
- Proposals should be restricted to 20 pages, excluding references.
- All documents should be emailed to research@mnu.edu.my.
- Proposal and all parts of it (such as questionnaire, consent form, information sheet etc.) should be in MS word and other necessary documents should be pdf format.
- Research proposal should be clear, concise, comprehensive and well organized. please proofread the proposal before submission.
- Proposal text must be divided into numbered sections, pages should be numbered, font should be Times New Roman or Arial and font size must be 11 or 12 with 1.5-spaced text.
- If figures are included, you must ensure that each illustration has a caption attached to the figure. A caption should comprise a brief title and a description of the illustration. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations that are used.
- If tables are provided, place them next to the relevant text in the proposal. Number the tables consecutively in accordance with their appearance in the text and place any table notes below the table body. Ensure the data presented in the tables do not duplicate results described elsewhere in the proposal.
- Please take note that proposal format may slightly vary depending on the field of the research. However, all main parts included in the guideline would be similar. Few examples are provided below. The examples provided below are not an exhaustive list, they are provided just as examples.

Social Sciences and Humanities: Title /Research aims and objectives/purpose of the study/significance/background information/methodology and methods/time line/budget/ reference

Chemical engineering: Title/Introduction/ problem statement/objectives/scope of study/literature review/methodology and methods/timeline/budget/references

Biological science: Title/Introduction/specific aims/current results or findings /materials and methods/expected results/timeline/budget /References

Law: Title/ Introduction or context/research questions/significance/literature review/methodology/timeline/budget/reference list

Health: Title/ introduction/aims and objectives/ questions and hypothesis/significance/literature review/methodology/ethics/timeline/budget/references

A. PROJECT TITLE AND SUMMARY

Title should be brief and informative, maximum 25 words.

Summary of the proposal should be provided with the proposal. It should not be more than 250 words. In this section you should provide a summary of your proposed research that is concise, factual and clear. It should briefly state the purpose of the research, significance, methodology, and expected outcome. A reader who is not a specialist in this field should be able to grasp the information provided.

Summary should not exceed 250 words; all acronyms and abbreviations defined; no references cited. State how research is going to be conducted and expected outcomes.

B. BACKGROUND/INTRODUCTION

Provide a brief introduction of the topic area. It should be an introduction of the project issue; not an exhaustive literature review. It must be in two pages or less, review pertinent work, cite key references, explain importance of the subject matter, and state objectives of your work.

In this section, provide a context for your project by describing issues, problems, history and background of the problem. Describe how it can contribute to academic work and the body of research and knowledge in the area. Explain why/how your research is essential to the field by explaining what has been written about your topic, what theories have been developed and what gap that your research will fill.

Also, it is a good idea to describe any underpinning theoretical perspectives informing your ideas and those perspectives that are combined to direct your unique piece of research; the theoretical perspective (if any) that would guide your research project.

C. RESEARCH AIMS, OBJECTIVES, HYPOTHESIS AND QUESTIONS

Aims

The aim of the research project should be based on what you want to know, prove, demonstrate, analyses, test, investigate or examine. If you are including a problem statement (not all research projects provide a problem statement, but explain the significance of the issue under 'significance') it should describe problem(s) it hopes to solve or particular question(s) it will answer.

Objectives

This section should suggest the underlying research area and it should be a means to achieve your aim. Be as precise as possible and avoid a vague statement of objectives. If you have more than one objective, list your objectives in a logical sequence. For example: The aim of this project is to:

- Provide an outline of a research proposal
- Enable a prospective researcher to prepare a research proposal

or in a sequential order of what analysis you will be doing first. For instance:

- To screen chemical profile of plant A
- To identify toxin B in plant A using spectroscopy
- To develop a predictive model of toxin B

Research questions and Hypothesis

If your research is based on research questions and hypothesis testing, usually research questions comes first followed by hypothesis. The research question or hypothesis should define your research, set parameters, and act as a frame of reference for assessing your work.

Research Questions: This section should explain the research question(s) based on your objectives. Do not include too many, 2-3 should suffice.

Research Hypotheses: If a substantial theoretical basis is considered to underlie the research problem, hypotheses may be generated. Otherwise, the researcher is encouraged to develop a set of logically related propositions that may ultimately formulate a theory, or test an existing theory.

Hypotheses should be clear, concise, and declarative. The statement should describe hypotheses that the work was intended to confirm or refute. Describe why it is important to prove the hypothesis correct (significance). For example, Hypothesis: Toxin B is present in the plant A to more than 5 ppm.

D. SIGNIFICANCE

Your research project should make an original contribution to knowledge and this section is about showing how important your research area is. Emphasize the importance of your contribution in the context of existing knowledge or common practice and what is the novelty of your research.

Describe how the project is significant, how it addresses an important problem, and/or how it will contribute to your area of research. You should justify the project from a review of literature on the topic: discuss the texts which you believe are most important to the project, demonstrate your understanding of the research issues, and identify existing gaps in the literature that the research is intended to address.

This section is intended to explain the importance of solving the issue on hand rather than providing a detailed analysis of existing debates. In addition, you can link your project to **National Research Priorities** in this section. Also, you should describe how the anticipated outcomes of the project will advance the discipline. In short, your research should contribute a new knowledge to the scientific community.

E. LITERATURE REVIEW

This section is a brief overview of the literature that identifies current state of knowledge of the area of study. It should lead the reader through to what is known and what is not known about the area and lead to the specific aims of the project.

The literature review should include a review about your topic, the methodology you are going to use in your research and whatever you will be doing in the research. Thorough literature review must be in place before proceeding to other steps of your research. At the end of the literature review, the knowledge gap must have been identified, the method you are going to use must be well reviewed and justified.

The outcome of your literature review is that you are well versed with the up to date knowledge about your area of research and the skeleton of your research is drawn and you are ready to conduct the research.

F. METHODOLOGY

Under this section, you should describe the research methodologies underpinning your research and what methods or strategies you will use and why. Keep in mind that there should be clear links with your objectives/questions and the methodology. For example, if you are examining the relationship between two or more phenomena, a correlational methodology would be appropriate. Alternatively, a case study methodology would be appropriate for researching complex phenomena in their natural setting. If you are interested in observing the perspectives and experiences of a group of individuals, a qualitative descriptive study would be appropriate.

The methodology section is one of the most important sections of your proposal. It demonstrates your understanding of the steps and skills necessary to undertake your intended research. It should be as explicit as possible, detailing how you will collect, analyse and present your data or research. They might change as you conduct your research, but you must still demonstrate that you have given a lot of thought into the practicalities of your research at this early stage.

Below are some (not limited to) of the areas you need to think about:

- If you are gathering a sample of people or documents, you should outline your procedures for choosing this sample.
- Definition of terms (operational definitions for quantitative)
- Location of data collection
- Sample, sampling methods/ sample size calculation
- Data collection (Who and how will the data be collected)
- If you intend on giving out questionnaires, you should provide questionnaire
- If you intend on conducting interviews, you should provide interview guides for unstructured and semi structured interviews and questionnaire for structured interviews.
- If you intend on using experimental designs to collect data, you should describe as many of its elements as possible. For example, chosen subject type, materials to be used, dependent and

independent variables and data collection method ((self-reporting, observation, clinical diagnosis etc))

G. ETHICS

If your project involves the collection of confidential or sensitive information, describe how this information will be managed.

If your project involves intellectual property issues or is related to any arrangements or agreements that may affect the intellectual property arising from the research, describe how this will be managed.

All university research is expected to conform to acceptable ethical standards. Researches involving human participants must be approved by the University Research Ethics Committee before the research commences.

Some examples of areas of ethics include:

- The securing of informed consent
- Confidentiality
- Preservation of anonymity
- Avoidance of deception or adverse effects

To read the University Ethics Guidelines and to submit an application, visit the Research Centre website (<http://rc.mnu.edu.mv>.)

H. TIMELINE

Indicate an anticipated deadline for each phase of your research project. If it is a project that would require more than a year, it is a good idea to provide monthly schedule in the form of a Gantt chart.

I. BUDGET

This section should provide the proposed budget for the project. The budget should include a breakdown of costs, including administrative, equipment and materials, training, travel costs etc. Justify the major items listed in the budget including a brief description of the item and how it relates to the project.

J. RESEARCH DISAMINATION

Provide a brief overview for communication of the research project and its outcomes. Some of the information you could include in this section are anticipated publication of journal articles, papers or book chapters, conferences, workshops or seminar presentations etc.

J. OTHER APPROVALS REQUIRED

Sometimes, it is possible that you might require other approvals from other entities before you can start your project. Therefore, you need to list all the approvals required for the project. For example, as an MNU staff, you would require University Ethics approval before start of your project. Another example would be all health related researches must be approved by the National Health Research Committee in Ministry of Health.

K. REFERENCES

You should provide publication details of the literature cited. Proper in-text referencing should be done for all the literature used in the proposal using APA system. In addition, a full reference list should be provided at the end of the proposal before appendixes.

L. APENDIXES

Provide the questionnaires, guides, tables, figures, frameworks etc. that would help a reader to understand your proposal better.

References used for the development of this guide

The above guideline is adapted from the proposal development guidelines of Curtin University, University of Western Australia, University of Queensland, University of Auckland, University of Birmingham and University of York. The websites of those guidelines are provided below.

- Curtin University - https://life.curtin.edu.au/local/docs/CL_D-writing-a-research-proposal-o8-2015.pdf.
- University of Western Australia - http://www.postgraduate.uwa.edu.au/_data/assets/pdf_file/0016/22453/RP-Guidelines_110313-1.pdf.

http://www.web.uwa.edu.au/_data/assets/pdf_file/0009/989433/Format_and_Contents_of_Research_Proposals_-_corrected.pdf

- University of Queensland - <https://www.adelaide.edu.au/graduatecentre/forms/admission/docs/admission-research-proposal-template-guide.pdf>
- University of Auckland- <https://www.auckland.ac.nz/en/education/study-with-us/study-options/doctoral-programmes/research-proposal-structure.html>
- University of Birmingham - <https://www.birmingham.ac.uk/schools/law/courses/research/research-proposal.aspx>
- University of York - <https://www.york.ac.uk/media/cahr/phd/Research%20Proposal.pdf>