# KU NEW LOGO

# RESEARCH PROJECT GUIDELINES FOR IT AND ARCHITECTURE

## 1.1 Introduction

All Students **mus**t carry out an independent research project in a topic related to their area of study specialization. A proposal should be submitted immediately after the Research Methods course work Unit and the Research Project work completed within one year after attaining 420 credits cumulative thereafter

The University of Kigali Research Project, demonstrates the student’s readiness to join scholars and practitioners in advancing knowledge and practice in the real world of business. Consequently, students are expected to produce quality research project that:

* Makes contribution to the knowledge in their respective discipline/specialty- i.e. specified management issue in area of specialization.
* Addresses current problems of interests to the management practitioners
* Demonstrate a mastery of a specialization area within the degree program.
* Reflects the integration of practice
* Demonstrates writing skills and publishing ability

The research strategy, scope and academic rigour are expected to be consistent with the highest level of research project that is expected in the discipline.

## 1.2 General Regulations

* The student shall work under the guidance of a research supervisor appointed by the School or faculty
* The Research Project Exercise should take a maximum of one year, which *is 12* *months after attaining 420 cumulative credits.*  Failure to which, the student will be automatically deregistered.
* If, the above-stipulated *time exceeds*, the student will register afresh for the unit at a *fee* and work within *6 months to finish the project*
* The student shall be deemed successful in the Research Project exercise after presenting the finding before a panel of examiners (Project Defense at proposal and final report).
* The Research Project Panel of examiners has a right to accept or reject the findings. If the findings are rejected, the student will be given another one chance to resubmit findings in line with panelists and supervisors recommendations.
* The completed project is expected to be of 20,000 to 30,000 words.

## 1.3 Choosing a Topic

* The topic of investigation should be clear, researchable, specific, and objective
* Similar topic between students done on different organizations should be avoided.
* The subject of investigation should be new, original and not a replica of another person’s work.
* If the investigation/research intends to cover a specific area previously addressed from a different angle, the previous supervisor must be consulted for approval.
* At the proposal level, the appointed supervisor MUST approve the topic of study.
* All the topics must be ratified by the research committee in the faculty.

## 1.4 Formatting Guidelines

**Font Size**-12 in the body text, except the topics and titles, which should be font size 14

**Font Type-** Times New Roman

**Spacing-** The project should be 1.5 lines spacing

**Highlighting-** It is preferred that topics are bolded. When a topic is bolded, it should not be underlined

**Print Quality-** Final document should be of laser print quality

**Margins**- Margins of the report should be 1 inches on the top, bottom and right hand side. The left hand-side margin should be 2 inches to allow for binding.

**Tables**- Larger tables may be typed in smaller font size (10-11) in order to maintain standard margins

**Numbers and Percentages-**must not begin a sentence.

**Tables and Charts-** When presenting the table or chart, there must be a finding section and an analysis section. Avoid using ‘table above, or table below.’ Instead indicate as ‘Table 4.1 shows that ….’

**Final Binding-** Presented as Hard Copy, preferably Xerox Hard Binding. The binding should be ascertained by the Librarian.

## 1.5 Content Guidelines

PRELIMINARY PAGES

1. TITLE PAGE OUTLINE (not paginated)

The title should be in upper case and Centered

The topic - A case study of

* A survey of

By

Students full names }

(REG.NO.) } upper case

Research project submitted in partial fulfillment of the requirement for the award in Bachelor of Science with honours in Accounting (BSCA) submitted to school/Faculty of Business Management and Economics, University of Kigali.

MONTH (MAY) YEAR (2012) (no coma)

2. DECLARATION PAGE-copyright page (Roman number- ii )

The following format should be used:

Headed as: ‘Declaration’ and beginning with the following statement:

This research study is my original work and has not been presented to any other Institution. No part of this research should be reproduced without the authors’ consent or that of University of Kigali.

Students Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Sign \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_

Declaration by the supervisor(s)

This research has been submitted with our approval as The University of Kigali Supervisor(s).

Name:

Sign \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_

For and on behalf of University of Kigali

Head of Department

Name:

Sign \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_

For and on behalf of University of Kigali

Dean, School/Faculty

3. Dedication (Roman number- iii )

This is optional, however, dedication may be to a person or persons whom they have special attachments. A simply a statement such as “to my father……. and my mother ……” and a reason for the dedication may be given.

4. Acknowledgement (Roman number- iv )

An acknowledgement is an extension of appreciation for the contribution of others and assistance given during the entire research process. It recognizes the person to whom the writer is indebted for guidance and assistance during the study.

5. The Abstract page (Roman v)

The abstract should be one page well paragraphed and should contain

* The purpose and objectives of the study
* Significance of the study
* Methodology used
* Findings
* Recommendations

The spacing should be 1

6. TABLE OF CONTENTS page (Roman vi) – (refer to attached document format)

7. List of tables page (Roman vii)

8. List of figures page (Roman viii)

(All tables and figures must have a number and heading)

9. Operational definition of terms page (Roman ix)

Definition of terms must not be the dictionary meanings of the terms. Give the meaning as used in that study

Presentation

Term (Bolded) Meaning

10. MAIN DOCUMENT

**CHAPTER ONE – CENTRED**

Pagination of 1, 2, 3, 4, etc should begin in Chapter One

1.0 INTRODUCTION TO THE STUDY (Chapter Title)

1.1 Background of the project

Give specifics of the problem and not the history of the case. Give citations. Build a case for the study. Let there be authoritative sources/citations.

* 1. Statement of the Problem

Should be a paragraph and should clearly show what the problem is? What the research seeks to solve. Give authoritative sources/citation what has been done and what is missing.

* 1. Objectives of project
     1. General objectives

An introductory statement is expected should focus on the purpose/goals of the study

* + 1. Specific objectives
* The objectives are then given in bullets (i) (ii) (iii) (a) (b) (c)
* They should be SMART.
* The variables must be clear and the relationship should be clear.
* They should be within the scope
* There should be no objective as to make recommendations – its assumed to exist.
  1. Research Questions

The research questions are based on the objectives.

* An introductory statement should be there.
* The number of research questions doesn’t have to be same number as the objectives.
* The framing of questions should not attract a yes/No answers.

1.5 Scope of the project

Should include the concept, content scope, the geographical scope and the time scope.

* 1. Interest of the project
     1. personal interest
     2. Institutional interest
     3. Public interest

Should explain who benefits from the study and how. This section must be in future tense

1.7 Limitations of the project

Should show the extent to which the results of the study can be generalized. The reasons given must be beyond the researcher’s control. The stereotype limitations are not acceptable and should not be anticipated e.g. time and money are not limitations

1.8 Organization of the project

**CHAPTER TWO**

**2.0 LITERATURE REVIEW (Chapter Title)**

2.1 Introduction – Introduce the concepts, Theories and models/content of study

2.2 Review of past studies which should be done from a global point down to the local situation- Mainly secondary information.

2.2.1 }

2.2.1 } should cover the objectives

2.2.3 } etc

NB: Acknowledge the sources

* + 1. Theoretical/Conceptional framework

It’s either a theoretical or conceptual framework. The conceptual framework is deeper and the models created must be shown. Theories/principles/concepts must have those who postulated them and when and where the researcher has gotten them from. Explain how the variables of the study relate to each other. The sketches must have numbers, title, source and the application of the model to the study.

2.4.2 Critical Review

Should identify the gap by citing those who have worked on the concept

* + 1. Summary

Highlight of the key issues raised, facts- Reviewed issues that have been raised

**CHAPTER THREE**

**3.0 RESEARCH DESIGN AND METHODOLOGY (Chapter Title)**

3.1 Introduction – content of the chapter

3.2 Data collection Techniques

3.2.1 Documentation

3.2.2 Internet research

3.2.3 Interview

3.2.4 Observation

3.3. Software engineering methods

3.4 System Specification

3.4.1 Hardware specifications

3.4.2 Software Specifications

3.5. Functional Requirements

3.5.1. GIVE EXAMPLES OF FUNCTIONAL REQUIREMENT FOR YOUR PROJECT

3.6 Context (Level 0) Diagram

3.6.1. GIVE EXAMPLES OF CONTEXT DIAGRAM FOR YOUR PROJECT

3.7 DATA FLOW Diagram LEVEL 1 AND LEVEL 2 (WHERE APPLICABLE)

3.7.1. GIVE EXAMPLES OF DATA FLOW Diagram FOR YOUR PROJECT

3.8 Entity relationship diagram

3.8.1. GIVE EXAMPLES OF Entity relationship diagram FOR YOUR PROJECT

3.9 Physical Data Model (PDM)

3.10 Data dictionary

3.11 Tools and languages to be used in software development

**CHAPTER FOUR**

1. **SYSTEM ANALYSIS, DESIGN AND IMPLEMENTATION (Chapter Title)**

[4.0 System Study](#_Toc404609773)

[4.1 Introduction to the study](#_Toc404609774)

[4.2 The System Study](#_Toc404609775)

[4.2.1 Weakness observed in the current system](#_Toc404609776)

[4.3 System Analysis](#_Toc404609777)

[4.3.1 User Requirement of the proposed system](#_Toc404609778)

[4.3.2 Functional Requirement of the proposed system](#_Toc404609779)

[4.3.3 Non functional requirements](#_Toc404609780)

[4.3.4 System Requirement](#_Toc404609781)

[4.3.5 Requirement specification](#_Toc404609782)

[4.4 Systems Design](#_Toc404609783)

[4.4.1 Overview](#_Toc404609784)

[4.4.2 Architectural Design](#_Toc404609785)

* + 1. Context Diagram and [Data Flow Diagram](#_Toc404609786)

[Database Design](#_Toc404609787) (Entity relationship diagram, Physical Data Model (PDM), Data dictionary)

4.5 [System implementation](#_Toc404609788)

4.5.1 Screen shots of a running program

[4.6 System testing](#_Toc404609790)

[4.7 validations](#_Toc404609791)

**CHAPTER FIVE**

**5.0 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS (Chapter Title)**

[5.1 Discussion](#_Toc404609794)

[5.2 Conclusion](#_Toc404609796)

[5.3 Recommendation](#_Toc404609795)

**REFERENCES**

Use Reference. Do not use Bibliography it creates room for omissions and lack of acknowledgement of works referred to or citations. Harvard reference style should be used.

**APPENDICES**

1. Sample Codes used
2. Budget
3. Work plan