Central University of Technology, Free State

Fakulteit Bestuurswetenskappe / Faculty of Management Sciences

Learning Guide 2016

Subject:

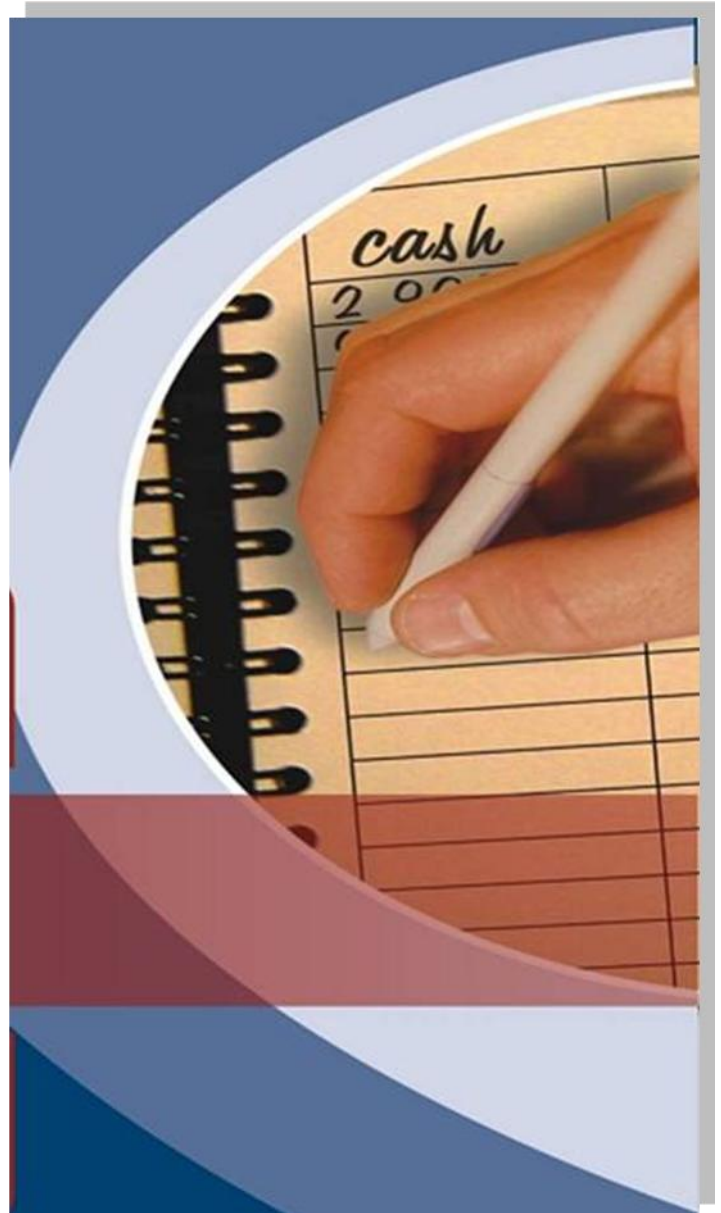**Research Methodology I**

Subject Code:

NMT11BB

Programme:

B Tech Business Administration/FIS/Cost & Mgt. Acct.

Programme Code:

BBBTAS

NQF level: **7**

Credits: **10**

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Contents

1. Welcome

Research is an indispensable tool in understanding and solving various forms of management problems. Thus, it is crucial that students enrolled in the Accounting, Auditing, Business Administration, Cost and Management Accounting, and FIS programmes understand the fundamentals of research in preparing for careers in their respective fields. For this reason, this course provides learners with introduction to **methods and techniques typically employed in social research**. Specifically, the purpose of this course is to equip learners with knowledge of basic research methods and strategies used in management/business research. It covers the scientific process including problem identification, problem statement, research question and hypothesis formulation, measurement and instrument construction, data collection, research design and in particular, survey research methods, statistical analysis, qualitative research and ethical considerations. It is also intended to develop learners in exemplary academic writing skills and critical analysis. You will also be introduced to the philosophical issue of research paradigms.

2. CUT Graduate attributes

There are ten attributes that define a CUT graduate but relevant to this programme we have only chosen four attributes which are:

Sustainable Development
Graduates should be environmentally sensitive and should recognise their roles as socially responsible citizens who care for the common good of others, their country and environment.

Entrepreneurship
Graduates should be entrepreneurial, industrious and be able to recognise opportunities and turn them into ideas for enterprises. They should have business acumen and display basic business skills.

Innovation and problem solving
Graduates should be innovative, think creatively and critically and apply a range of strategies to solve/ find solutions for real world problems. They should demonstrate ability to apply theoretical knowledge that will lead to development of new ideas, methods, techniques, practices, products and services of contexts (technology, commerce, social systems, economic development and policy development).

Team Work

Graduates should be able to work independently and in teams, to manage their own learning, work and take responsibility for self while contributing to teams such as learning communities.

These attributes inform the above-mentioned programmes in general and the Research Methodology II course in particular. As a result, the content of this course aims to help students enhance these attributes.

3. COURSE DETAILS

COURSE NAME	Research Methodology I
COURSE CODE	NMT11BB
NQF LEVEL	7
PROGRAMME	Accounting, Auditing, Bus. Admin., Cost & Mgt Acct and FIS
CREDITS	10
NOTIONAL HOURS	160
CONTACT HOURS	2.67 hours per week

4. Aim of the course

The overall outcome of the course is to introduce students to the methodological principles of doing research so that they acquire the knowledge and develop the skills needed to conduct research in future.

Specifically, after the course, students should be able to:

- Have developed an understanding of the research process and associated terminology;
- Read, search through, and summarize other research;

- Judge the quality of any research;
- Identify a researchable problem that requires empirical investigation;
- Design research (proposal) that answers a researchable problem;
- Practically carry out an empirical investigation

5. How to use the Learning guide

Each unit consists of subdivisions called learning elements. Each learning element consists of activities indicated by the following **ICONS**:

Materials which you have to study beforehand. These materials are available in the LIC. Complete references are shown on the last page of a unit.	
A case study or project, which you or your group have to complete as, prescribed by your course facilitator.	
Self-Assessment – questions you should be able to answer after completion of the learning element.	
Test	
Continuous Evaluation	
DVD Movie	
Internet	
Holiday	

6. Course Norms and Rules

Every orderly human undertaking has ground rules. The following are some of the most important but not all of the ground rules for the course.

Late submission
Be warned that there is absolutely no room for late submission. As a rule, late submission= no submission = ZERO (0). Due dates are provided in advance sometimes a year in advance so no excuse will be justifiable. Make sure you familiarize yourself with due dates.

Special exam
Except for the mid-year (June) exam where a student may with the permission of the exams department write a sick exam (when you were really sick) or special exam (e.g. work commitment or some mishap), there is no end of year special exam.

Language medium
The official language of communication at CUT is English and in compliance, the language medium for this course is English. Therefore, classes, tests, and exams will be conducted only in English.

Group work
Successful learning requires team work and in preparing you for that, a lot of your work will be group based. Every learner is expected to belong to a group. Groups must consist of not less than three and not more than five members. In rare cases and only with the permission of your lecturer will any deviation from this norm be allowed? Each group member's participation must be indicated on the cover page of assignments as a percentage. Failure to do so gives the lecturer liberty to award marks as (s) he deems fit and NO appeals will be tolerated

Class attendance and Lectures
The programme is a contact learning program. Therefore, class attendance is compulsory and there will be penalties for non-attendance. All students sign the attendance register.

Lectures will not refer exclusively to textbooks materials since knowledge acquisition in research is not confined to text books. Rather, lecturers will cover similar concepts and approaches to research from the broader research literature. Beyond merely attending class, students are expected to contribute to class discussions as a result of careful preparation of course materials. Overall participation will involve individual as, well as group based participation. It is assumed that students have read the assigned readings before class. Some exam questions will be drawn from books that will not be discussed in lecture. Some students are expected to attend each lecture and will be responsible for the material.

Other expectations from the learners
The lecturer expects every learner to:

- **Search** for and get other sources that relate to the course in addition to what is provided. The facilitator will only provide guidelines and assistance in this regard.

- **Maintain** academic integrity (not to engage in any academic dishonesty). Some examples of academic dishonesty are: signing attendance register on behalf of someone else; cheating in exams, assignments, and tests, plagiarism in any form; fabricating information or citations.

- **Accept responsibility** and take ownership of own learning

- **Get exposed** to and become competent in the use of the black board. This requirement is very important because it is the main medium of communication between the lecturer and you, other than in class communication.

7. Learning Assumed to be in place
(A) A formal qualification on NQF level 6 (old) or 7 (New);

(B) Computer literacy – ability to: use Microsoft word, PowerPoint, excel and search for information on the internet; and

(C) Basic numeric literacy – ability to: construct frequency tables and calculate mean, mode, and median.

8. Learning Outcomes

After completion of this module, learners must be able to do the following:

- To demonstrate a clear understanding of how to conduct basic research in order to address relevant needs in the fields of Business Administration, Finance, and Accounting.
- To acquire a relatively in-depth perspective of the quantitative research methodology and how to apply the different designs of quantitative research in conducting basic research in the management sciences.
- To gain insight into the fundamental elements of the qualitative research methodology and how to apply the different designs of qualitative research in conducting basic research in the management sciences.
- To comply with the technical requirements for compiling a research proposal for quantitative and qualitative research topics related to Accounting, Business Administration and Finance.
- To have an in-depth understanding of issues pertaining to research approaches in the management sciences.

9. Assessment

Assessment will be conducted according to any assessment method as approved by the department and the obtained marks may form part of the final mark. Assessment results will be made up of tests, assignments and practical. Evaluation criteria for assignments will be given to the learner in class

The learner is required to study all the work as set out in the learning guide as well as additional material.

i. Tests

Preliminary test dates and venues have been stated in the learning guide, but they are subject to change. Please pay attention in class to all the information that will be provided with regard to changes.

Should the learner miss a test it is his/her responsibility to inform the facilitator and bring a valid reason in writing within one week of writing the test.

The learner should ensure that the facilitator receives the valid reason on time. The facilitator will then advise the learner on what course of action to take.

<u>No excuse will be accepted for a class evaluation that was missed due to poor class attendance unless the learner can present a valid written reason within one week.</u>

ii. Assignments

Assignments must be submitted on time, on the due date, at the arranged venue, unless the facilitator makes other arrangements.

The facilitator accepts no responsibility for lost assignments. The learner must always keep a copy of every assignment that is submitted.

iii. Class activities and homework

Class activities will be done during class times and the facilitator may take in the activity or part of the activity at the end of the session, for marking.

Homework will be given to students and the facilitator may take in the homework at the beginning of the class session.

The above is done to monitor the learner's progress.

iv. Assessment Guidelines

Evaluation tests and assignments will be set on a regular basis. Most assignments are done in **Group Context**: it is vital that you also focus on the assignments. Past experience has shown that well functioning groups achieve all round success, as they encourage and support the individual.

v. Assessment Terminology

Assessment will take two forms (a) Formative and (b) Summative.

Formative assessment
Formative assessment will be achieved as follows:

- Regular <u>graded</u> group assignments
- Class discussion and feedback on particular relevant topics
- Case studies

Summative assessment

- Quarterly <u>tests,</u> covering the work done to date – see the work schedule for test dates and requirements
- Semester evaluation covering all the work for the semester.

A diagram of how to calculate your mark is as follows:

Semester 1			
Tests	**Group Assignments**	**Practical/Individual Assignments**	**Examinations**
Approx 50%	**Approx 20%**	**Approx 30%**	
40%			**60%**

Note 1: The percentage division between Tests and Assignments and Practical, may differ somewhat from the above, taking into cognisance some input/feedback from the learners, and interaction with the facilitator. A course of this nature should also be dynamic in its outcomes, presentation and business relevance

Note 2: A learner must achieve a minimum of 50% in order to successfully complete the course.

10. Statement of Academic Integrity

Academic dishonesty is a serious offence at CUT. The following examples are not exhaustive but describe CUTs policies for what constitutes academic dishonesty and penalties thereof (It is your responsibility to know what constitutes a violation of academic integrity). Academic dishonesty includes, but is not limited to: signing an attendance sheet using somebody else's name, cheating, on exams, plagiarizing, handing in papers that were downloaded from the web, fabricating information or citations, facilitating acts of academic dishonesty by others, etc. The usual punishment for academic dishonesty ranges from deduction of marks to total expulsion from CUT.

11. Text books

Main / Prescribed Textbooks **-**

1. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 4th Edition by John W. Creswell – ISBN: 9781452226101, Sage Publications.

Supplementary / Additional Text Books –

1. Research Methodology: A Step-by-Step Guide for Beginners, 4th Edition by Ranjit Kumar – ISBN: 9781446269978, Sage Publications.

2. Business Statistics Using Excel, 2nd Edition by Glyn Davis & Branko Pecar – ISBN: 9780199659517

12. Important Dates and Activities
To be amended by different programs as it may suit their schedules.

Due dates	Assessment type	Form of assessment	Mark allocation	
			course mark	**final mark**
01/03/2016	Test 1	Class Test	50%	20%
12/04/2016	Test 2	Class Test	50%	20%
24/04/2016	Sick test	Any form	50%	20%
EXAMINATIONS			**exam mark**	**final mark**
23/5 – 18/6 2016	1st semester exam	A formal 3 hour examination	50%	30%
FOR BLOEMFONTEIN CAMPUS ONLY!! Lecture venue………………………..B116 Lecture times…………………..19h15-20h45 on Mondays AND………………………..20h00 – 21h25 on Tuesdays				

13. Learning Units

UNIT 1: Introduction- What is Research?
Introducing the student to the bottom line of what research is all about, highlighting what specifically it is and what it is not, then focusing on the distinctive characteristics and concepts for understanding research.

1.1 Introduction

    1.1.1 Is Research Always Problem Solving?

1.2 What Makes Good Research?

    1.2.1 Introduction/Background

    1.2.2 Problem Statement

    1.2.3 Research Questions and Hypotheses

    1.2.4 Purpose/Aim

    1.2.5 Objectives

    1.2.6 Justification/Rationale

    1.2.7 Literature Review

    1.2.8 Methodology

    1.2.9 Findings/Results

    1.2.10 Conclusions and Recommendations

    1.2.11 Ethical Issues

1.3 Types of Research

1.4 Research Paradigms/Philosophies/Ontology/Epistemology

1.5 Research Concepts and Definitions (Theory in Research)

Activity

UNIT 2: Research Philosophies
2.1 Introduction

2.2 Positivism

2.3 Interpretivism

2.4 Activity

UNIT 3: Literature Review
Understanding what literature review is, explaining its purpose, identification of key sources and issues in scientific writing.

3.1 What is Literature Review?

3.2 Purpose and Benefits of Literature Review

3.3 Approaches to Conducting the Literature Review

      3.3.1 Integrating what others have done and said

      3.3.2 Criticizing Previous Scholarly Works

      3.3.3 Building Bridges between Related Topics

      3.3.4 Identifying the Central Issues in a Field

3.4 Types of Information Sources

3.5 Plagiarism

3.6 Referencing

3.7 Activity

UNIT 4: The Research Design- An overview
Understanding of the different research designs in research, explaining how the research design is linked to the research paradigm, purposes and techniques within which research is done.

4.1 The Definition of Research Design

4.2 The Functions of a Research Design

4.3 Making Research Design Decisions

4.4 Activity

UNIT 5: Research Design: Quantitative Research Design
Explaining quantitative research design and its associated threats in terms of validity, as well as differentiating between experimental and non-experimental research designs

5.1 Definition of Quantitative Research

5.2 Experimental Research Design

5.3 Non-Experimental Research Design

5.4 Reliability and Validity in Quantitative Research

5.5 Activity

UNIT 6: Research Design: Qualitative Research
Explaining qualitative research design and its associated threats in terms of validity and reliability, as well as differentiating between different qualitative research designs.

6.1 Definition of Qualitative Research

6.2 The Nature of Qualitative Research

6.3 Types of Qualitative Research Designs

      6.3.1 Narrative Research

      6.3.2 Phenomenology

      6.3.3 Grounded Theory

      6.3.4 Ethnography

      6.3.5 Case Study

6.4 Triangulation in Research

6.5 Reliability and Validity in Qualitative Research

6.6 Activity

UNIT 7: Research Design: Data Collection Methods
Distinguishing between different data collection sources (primary *vs* secondary) methods (interactive *vs* non-interactive; communication *and* observational) as well as knowing advantages and disadvantages of each.

7.1 Introduction

7.2 Data Sources

    7.2.1 Primary Data Sources

        7.2.1.1 Censuses

        7.2.1.2 Samples

    7.2.2 Secondary Data Sources

        7.2.2.1 Official publications

            7.2.2.1.1 Internal secondary data sources

            7.2.2.1.2 External secondary data sources

7.3 Advantages and Disadvantages in Types of Sources

    7.3.1 Advantages and Disadvantages in Use of Primary Sources

    7.3.2 Advantages and Disadvantages in Use of Secondary Sources

7.4 Quantitative: Data Collection in Experimental Design

7.5 Quantitative: Data Collection in Non-Experimental Design

    7.5.1 Questionnaire-Based Methods

        7.5.1.1 Individual (personal) interview

        7.5.1.2 Postal questionnaire

UNIT 8: Research Design: Sampling
Discussion of various ways of selecting participants for your research and the importance of the selection process to the research outcomes.

8.6.1 Random Sampling Numbers

8.7 Sampling Techniques

8.7.1 Random Sampling

8.7.1.1 Simple random sampling

8.7.1.2 Stratified random sampling

8.7.2 Quasi Random Sampling

8.7.2.1 Systematic random sampling

8.7.2.2 Multi-stage sampling

8.7.3 Non-Random Sampling

8.7.3.1 Cluster sampling

8.7.3.2 Quota sampling

8.8 Determination of Sample Size

8.8.1 Money and Time Available

8.8.2 Aim and Objectives of the Study

8.8.3. Degree of Precision Required

8.8.4 Number of Sub-Samples Required

8.9 Sampling in Quantitative versus Qualitative Research

8.9 Activity

UNIT 9: Measurement in Research
Understanding the different levels of measurement and distinguish between reliability and validity and the different types thereof.

9.1 Introduction

9.2 Principles of Measurement

9.3 Error Sources in Measurement

9.3.1 Selection Bias

9.3.2 Structure and Wording Bias

9.3.3 Interviewer Bias

9.3.4 Recording Bias

9.4 Characteristics of Good Measurement

9.4.1 Reliability

9.4.2 Validity

9.5 Activity

UNIT 10: Data Analysis – Qualitative Research
Identification of the different methods of qualitative data analysis.

10.1 Introduction

10.2 Coding Qualitative Data

10.3 Methods of Analysing Qualitative Data

10.4 Activity

UNIT 11: Data Analysis: Quantitative Research
Understanding quantitative data analysis tools for describing characteristics of a sample and population as well as how to infer from a sample to a population.

11.1 Introduction

11.2 Basic Concepts in Statistical Analysis

11.2.1 Sample Statistics

11.12.2.1 Chi-square test of association

11.12.2.2 Chi-square test for independent samples

11.12.2.3 Chi-square test of goodness-of-fit

11.13 Activity

NB: The lecturer reserves the right to leave or add some contents in the learning guide

SEMESTER 1 – 2016

Work plan for the semester			
PLANNING - 2016			

WEEK	MONTH	DATE	DAYS	REMARKS		
1	Feb	01-05	5 days	Introduction/Learning unit 1		
2	Feb	08- 12	5 days	Learning unit 1		
3	FEB	15 - 19	5 days	Learning unit 2		
4	FEB	22 - 26	5 days	Learning unit 2		
5	FEB/MAR	29 - 04	5 days	CLASS TEST 1		
6	MAR	07 - 11	5 days	Learning unit 3		
7	MARCH	14 - 18	5 days	Learning unit 3		
8	MARCH	21 - 27	5 days	Learning Unit 4		
30 March - 06 April: Holidays						
9	APRIL	04 - 08	4 days	Learning unit 4		
10	APRIL	11 - 15	5 days	CLASS TEST 2		
11	APRIL	18 - 22	5 days	Learning unit 5		
12	APR/MAY	25 - 29	4 days	Learning unit 5		
13	MAY	04 - 08	5 days	Learning unit 6		
14	MAY	11 - 15	5 days	Learning Unit 6		
15	May	15 - 20	5 days	REVISION		
16	MAY/JUNE	22/05 – 04/06	3 weeks	Main Exam		
17	JUNE	05 - 17	2 weeks	Sick/Special/Supplementary Exam		
26 June - 17 July: Holidays						
18	JULY	18- 22	5 days	Second Semester Begins		