

MBEYA UNIVERSITY OF SCIENCE AND TECHNOLOGY



GUIDELINES FOR PREPARING RESEARCH PROPOSALS, THESIS DISSERTATIONS AND PROJECTS

AUGUST, 2020

FOREWORD

I am glad to introduce the first edition of the Mbeya University of Science and Technology (MUST) guidelines for research proposal, research report and thesis/dissertation writing. This is a step-by-step guide intended for all those who are in any way involved in preparing research proposals, research reports, theses or dissertations, which are crucial components of master's, doctoral and postgraduate diploma programmes, and which contribute substantially to the research accomplishments of MUST. Undertaking research is an adventure, usually involving unforeseen challenges. This guide is designed to help candidates overcome these challenges.

Proposal writing is important in your pursuit of a graduate degree or a research project. The proposal is, in effect, an intellectual scholastic contract which specifies what you will do, how you will do it and interpret the results. In specifying what will be done it also gives criteria for determining whether it is done. A research proposal should show a reasonably informed reader why a particular issue needs to be addressed. To that end, a proposal needs to show how your work fits into what is already known about the topic and what new contribution your work will make. The proposal should situate the work in the literature, showing why this is an important question to answer in the field, and convince the committee that your approach will in fact result in an answer to the question.

A good dissertation/thesis/report hinges on a good proposal. This requires a long preparatory period of reading, observation, discussion and incubation. Read everything that you can in your area of interest. Figure out what are the important and missing parts of your understanding. Continuously consult your mentors and share your ideas widely. Focus your study, use simple terminologies and be precise in your writing. This guide details the fundamentals of writing acceptable for MUST, take time to read it and internalize its contents with the help of your supervisor/mentor.

I am grateful to all who provided assistance in producing this booklet.

Prof. Aloys N. Mvuma

Vice Chancellor

LIST OF ABBREVIATIONS AND ACRONYMS

APA American Psychological Association

AU	African Union
COSTECH	Commission for Science and Technology
DVC ARC	Deputy Vice Chancellor Academic, Research and Consultancy
FAO	Food and Agriculture Organization
MUST	Mbeya University of Science and Technology
NIMR	National Institute of Medical Research
SDGs	Sustainable Development Goals
USA	United States of America
UK	United Kingdom

DEFINITION OF KEY TERMS AND CONCEPTS

Proposal

This is a written presentation of an intended research specifying the problem, the purpose, scope/objectives, methodology, references and the financial plan/budget. A synopsis/concept note is an outline of the research proposal of 3-7 pages length (including references) which is currently required for provisional admission to Master and Doctoral degree studies by Thesis at Mbeya University of Science and Technology (MUST) in which the provisional title will be registered (see Appendix 1).

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1.0 BACKGROUND INFORMATION

1.1 Introduction

The history of Mbeya University of Science and Technology (MUST) dates back from 1986 when Mbeya Technical College (MTC) was established by the Government of Tanzania for the purpose of training Full Technicians at Certificate Level (FTC) under the Russia - Tanzania Training Support. The College existed up to mid-2005 offering programmes in the fields of Architecture Technology, Electrical Engineering, Civil Engineering and Mechanical Engineering. In July 2005, MTC was transformed into a comprehensive multi-disciplinary Mbeya Institute of Science and Technology (MIST) by the National Council for Technical Education (Mbeya Institute of Science and Technology) Establishment Order, 2004.

The transformation was a Government move towards strengthening the College to become a fully-fledged University. Mbeya Institute of Science and Technology registered a number of achievements including restructuring of FTC programmes to Ordinary Diploma programmes and introduction of Undergraduate Degree programmes which eventually lead to expansion of student enrolment. Following these achievements, on 29th March 2012 after being issued with a University Provisional License by Tanzania Commission for Universities (TCU), the Institute was transformed to a fully-fledged University namely Mbeya University of Science and Technology (MUST). The University was granted Mbeya University of Science and Technology Charter, 2013 on 20th August 2013.

1.2 MUST Vision

The Vision of Mbeya University of Science and Technology is to become the leading center of excellence for knowledge, skills and applied education in science and technology.

1.3 MUST Mission

The Mission of Mbeya University of Science and Technology is to develop academically, technologically and socially competent students, staff and other stakeholders who will be responsive to the broader needs and challenges of the society specified by:

- (a) Facilitating appropriate tuition, practical training and support according to the needs of students and other customers;
- (b) Encouraging staff commitment to quality education and services including research, consultancy and innovation;
- (c) Fostering lifelong learning, honesty and responsibility;
- (d) Promoting an environment conducive to human development;
- (e) Promoting effective entrepreneurship and usage of appropriate technology that meet national and international needs and standards through skills and practical oriented training, research and consultancy.

1.4 Situation Analysis

Research plays a crucial role in science, technology and socio-economic development of any society. Major developments in various sectors are likely to present both opportunities and challenges in the overall development. The contribution of research in development through integration of academic programmes with University and National Research Agenda is inevitable. Research can lead to the improvement of the quality of people's lives such as increasing life expectancy, enhancing agricultural productivity in critical productive sectors of the economy for improved livelihoods and food security. Moreover, it can also lead to developing technologies that would improve people's livelihoods. At the institutional level, research can bring about product innovations and improvement, improved performance in product marketing and increased service efficiency and effectiveness.

Currently, there are no guidelines in place for preparing research proposal/reports, Theses and Dissertation while the University is offering postgraduate programmes that could take care of research activities. This Guideline intends to fill the research document gap that existed before so as to equip postgraduate students with the University directions. It is for this reason that the formulation of these guidelines took into consideration the University postgraduate programmes through in-depth consultations and participation of Academic Staff as central research stakeholders.

1.5 Rationale of Formulating Guidelines

Guidelines for preparing research proposal/report, Theses and Dissertation writing for any institution with postgraduate students provide directions based on its retrospective and prospective matters on research activities. These Guidelines intend to guide the planning for research proposal and research report activities at MUST. It focuses on giving direction to postgraduate students and the academia as well as development partners as they plan and fund their related research activities. These guidelines provide evidence necessary for decision-making of postgraduate students and their supervisors in line with University interest. Research and development institutions and other stakeholders are therefore expected to plan, undertake and promote research that is in line with the Guidelines with the intention of delivering quality research proposal, Theses and Dissertations report.

1.6 Justification

The ninth (9th) United Nations Sustainable Development Goals (SDGs) aims to build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation by enhancing scientific research and technological capabilities of industrial sectors in developing countries in particular. Accordingly, Tanzania Development Vision 2025 put forward that science and technology education and awareness of its applications for promoting and enhancing productivity should permeate the whole society through continuous learning and publicity campaigns. As a result, research priorities for Tanzania (2015-2020) and MUST Research Agenda articulate that

Research and Development (R&D) activities are necessary in order to inform, lead and guide all that needs to be done to achieve the desired transformation of the socio-economic status of a Nation. Moreover, institutional research activities contribute in transformation of Tanzania from being an agrarian society to become an industrial and manufacturing society (COSTECH, 2016). Thus, these Guidelines aim to facilitate both basic and applied research proposals, Theses and Dissertations reports to generate new knowledge and solutions to the challenges encountered by various sectors in the country.

2.0 BACKGROUND INFORMATION OF THE GUIDELINES

2.1 Introduction

This part presents the vision, mission, goal, objectives, philosophy and scope of the guidelines.

2.2 Vision

To be a University with a strong, dynamic, resilient and competitive research outputs both knowledge based and innovation driven.

2.3 Mission

To develop a research roadmap that will increase the outcome and efficiency of research and development (R&D) by integrating postgraduate programmes with societal challenges so as to address them.

2.4 Goal

The goal of these guidelines is to enhance quality of research, consistence of processes and coherence with vision and mission of the institution.

2.5 Objectives

2.5.1 The main Objective of the Guidelines

The main objective of the Guidelines is to provide directives on basic and applied research to generate new knowledge and solutions to the challenges encountered by the society.

2.5.2 Specific objectives of the Guidelines

Specifically, the guidelines seek to:

- (a) Guide students on research proposal preparation;
- (b) Guide students on how to conduct research;
- (c) Strengthen supervision of students' Research work; and
- (d) Guide students on Dissertation/Thesis/Project preparation.

2.6 Philosophy of the Guidelines

The pragmatism philosophy is the research philosophy since it accepts concepts to be relevant only if they support action.

2.7 Scope of the Guidelines

The Guidelines focus on the preparation of students' research proposals, implementation of the students' research projects, preparation of dissertations, theses and project reports for examination in areas of interest and relevance.

3.0 PROCEDURES FOR FORMULATING THE GUIDELINES

In formulating the Guidelines, benchmarking with other higher learning institutions which offer postgraduate studies was carried out. The Guidelines of preparing Theses/Dissertations and project proposals and reports of Sokoine University of Agriculture, University of Dar es Salam, The Nelson Mandela Institute of Science and Technology, East Africa Statistics Training Centre and Makerere University were reviewed.

However, Guidelines for The Nelson Mandela Institute of Science and Technology and East Africa Statistical Training Centre had included: Assigning supervisors; Training for supervisors; Duties and responsibilities of a supervisor; students responsibilities; conflict resolutions during supervision; supervision load and remuneration contrary to the rest institutions.

As a result, these guidelines did not include them because they are articulated in the Revised Postgraduate Students Guidelines and Regulations. Moreover, these guidelines have appended Citation and referencing format contrary to the reviewed guidelines. Finally, the proposed guideline was circulated to the Principals and some Heads of Departments for further comments which were incorporated to enhance its relevance across the University for easy implementation.

4.0 COMPONENTS OF A RESEARCH PROPOSAL

4.1 Title / Topic of a Research Proposal

The title should accurately reflect the scope and content of the study. In addition, it should be concise, simple and catchy in not more than 20 words. The title should be informative/descriptive yet discrete and contain the key words of the proposal.

4.2 Background/Introduction

This section provides evidence and conditions of the existing situations highlighting the gap(s) to make the reader feel the urgency of the problem, the need to study it in order to solve the problem or contribute to its solution (about 600 words, Font type: Times New Roman, Font size 12; 1.5 line spacing).

4.3 Research Problem/Statement of the Problem

It is an important component with the following attributes:

- (a) Presents the reason behind the proposal i.e. what will change when this research is done or what would happen if the research is not done;
- (b) Problem is an existing negative state not absence of a solution;
- (c) Refers to what has been detected and needs a solution in the practical or theoretical world;
- (d) Should clearly state the nature of the problem and its known or estimated magnitude/extent;
- (e) Link the problem to the University Research Agenda and priority areas/ national development priorities/framework, the regional (e.g. AU) and the Sustainable Development Goals (SDGs); and
- (f) Should be concise and brief (not more than 1 page).

4.4 General Objective/Aim/Purpose

Refers to the general intention of the research. Should spell out what the research is supposed to accomplish.

4.5 Specific Objectives

These are specific aims/objectives arising directly from the general objective/purpose/aim of the study. For each specific objective there should be a method and sometimes materials and equipment used in order to achieve it.

4.6 Significance/Importance/Contribution

This refers to the relevance of study in terms of academic contributions and practical use that might be made of the findings. It should reflect on knowledge creation, technological innovation or socio-economic value to the community.

4.7 Justification/Rationale

(Answers the question-why?) Would the world collapse, if this research is not done?

4.8 Theoretical/Conceptual Framework (where applicable)

(a) Theoretical Framework

This is an examination of existing or self-formulated theories in relation to the researchers' objectives.

Or

(b) Conceptual Framework

This is a scheme of concepts (variables) which a researcher will operationalise in the study in order to achieve the set objectives. The framework is normally presented graphically (diagrammatically).

4.9 Scope (where applicable)

The scope provides for the boundary of the research in terms of depth and extent of investigation, content, sample size, geographical, timeframe and theoretical coverage.

4.10 Literature Review

- (a) This section deals with the analysis of existing literature (previous studies) on the subject with the objective of revealing contributions, weaknesses, challenges, opportunities and gaps.
- (b) The Literature Review should be according to the themes of the study and should reflect the objectives, hypotheses/research questions and methods.
- (c) Citation should be in accordance with APA style format, Section 4.17.

4.11 Hypotheses/Postulates/Research Questions (where applicable)

These are investigative assumptions, which guide the study. In case of hypotheses, they should be testable. (Hypothesis is usually null or alternate, whichever poses the investigative question).

N.B.: *Hypotheses can come immediately after Literature Review or Specific Objectives.*

4.12 Methodology

This is a detailed description of selected methodology and should be presented in unambiguous terms. The section comprises:

- (a) Research design which describes the nature and pattern the research intends to follow e.g. whether it is historical, descriptive survey, experimental or quasi experimental and location (optional), etc.;
- (b) Research approaches – qualitative/quantitative;
- (c) Description of the geographical area and where population/material of the study exists;
- (d) Description of the population/material from which samples will be selected;

- (e) Sampling strategies, by which the researcher will select representative elements / subjects from the population;
- (f) Data collection methods; including instruments and procedures to be used in the research described;
- (g) Data quality control, which refers to reliability and validity of instruments;
- (h) Measurements, which refer to the formulae or scales in the study; and
- (i) Data analysis, which involves organization and interpretation of the data generated.

Note: Both raw and the analysed data should be kept both electronically and hardcopy for further reference.

The following steps should be followed in preparing data for analysis:

- (i) Receive the raw data sources;
- (ii) Create electronic database from the raw data sources;
- (iii) Clean/Edit the database;
- (iv) Correct and clarify the raw data sources;
- (v) Finalize database; and
- (vi) Create data files from the databases.

4.13 Ethical Consideration

Ethics of the research refers to the morals of the investigation or intervention as regards the minimal abuse, disregard, and safety, social and psychological well-being of the person, community and/or animals i.e. how the principles of consent, beneficence and justice are handled in the study. Include a statement of where ethical clearance has been or will be obtained such as COSTECH, NIMR, etc.

4.14 Environmental Considerations

Where applicable, include a statement on environmental concerns.

4.15 Gender Consideration

The section presents the gender issues addressed by the study and how they will be handled in the analysis.

4.16 Limitations/Anticipated Problems (Optional)

This refers to anticipated constraints imposed by methods/location/situation of research. Potential sources of bias in the proposed study are presented here. Show how the limitations/bias will be addressed. However, these should not be seen to prevent the study from being carried out. The limitations are major considerations before embarking on a study to ascertain the feasibility of accomplishment.

4.17 Citation and Referencing Format

For the purpose of uniformity and standardization, Project research proposals and Dissertations/Theses should follow the latest version of American Psychological Association (APA)'s citation and referencing styles. The rules of APA styles are detailed in the Publication Manual of APA (www.apastyle.org).

4.18 Appendices

Comprises of the budget, work plan/time framework, explanatory notes and instruments.

(a) Budget

This is the financial plan for implementation of the research. It should be clear, realistic and reasonable (affordable). The budget should be itemized according to the following components:

- (i) Equipment;
- (ii) Stationery;
- (iii) Materials e.g. nails, wood, chemicals, etc;
- (iv) Travel;
- (v) Subsistence;
- (vi) Research assistance;
- (vii) Services (secretarial, photocopying, printing, binding);
- (viii) Dissemination (publishing, conferences, etc.); and

(ix) Others (specify).

(b) Time Framework/Work Plan

This is the schedule/time-table of activities covering the period over which the research is to be implemented with due regard to budgetary consideration as well. It could be presented in tabular form or in a Gantt chart. It is a valuable guide for evaluation of a research progress.

(c) Explanatory Notes

These include research approval letters, maps and lists of areas to be visited.

(d) Instruments/Tools

These are details of tools used in the research e.g. equipment, questionnaire, interview schedule, scales and tests, etc.

Name:Signature: Date:

(Candidates)

Comments by Supervisor:

.....
.....

NameSignature..... Date

(Supervisor)

4.19 Length of Proposals and Submission

A proposal for Postgraduate Diploma Research Project should be up to 10 pages including appendices; Masters' research proposal should be up to 15 pages excluding appendices while the PhD research proposal should not exceed 25 pages excluding appendices.

The proposal should be submitted to the Departmental Postgraduate Studies, Research and Publications Committee for evaluation and endorsed by filling Appendix 2 before it is forwarded to the College Postgraduate Studies, Research and Publications Committee for final approval and recording.

A PhD degree research proposal should be vetted by the candidates' doctoral committee and their views along with College Postgraduate Studies, Research and Publications Committee minutes should be forwarded to the Directorate of Postgraduate Studies, Research and Publications. A letter from the designated/approved supervisor certifying that:

'..All recommended amendments in the proposal have been addressed'

Should accompany the College Postgraduate Studies, Research and Publications Committee approved minutes.

4.20 Text format

Text should be in the following format:

- (a) Typewritten/word-processed;
- (b) In a font of 12 points (Times New Roman);
- (c) Double spaced and evenly distributed with full justification;
- (d) Clear where a new paragraph is starting;
- (e) The left-hand margin should be 4.0 cm from the left edge of the paper;
- (f) The right-hand margin should be 2.5 cm from the right edge;
- (g) The top margin should be 4.0 cm from the top of the page;
- (h) The bottom margin should be 2.5 cm from the bottom of the paper;
and
- (i) Printed on single-sided right hand pages only.

4.21 The Role of the Senate PSRP

Where the examiners are not in agreement in their overall recommendation; the SPSRPC shall examine the case and recommend one of the following actions:

- (a) The recommendation of the External Examiner(s) be adopted;
- (b) An additional independent examiner be appointed; or
- (c) The relevant College/Department must be requested to establish a panel from amongst the experts available to examine the candidate orally.

The viva voce examinations shall take place only after the Senate SPSRPC and Senate have been satisfied that the Thesis/Dissertation submitted by the candidate is considered by the examiners to be satisfactory (Section 2.31 of Postgraduate Guidelines and Regulations).

5.0 FORMAT OF THESES/DISSERTATIONS/PROJECT REPORT

Theses and Dissertations can be developed in three formats: monograph, published papers or publishable manuscripts.

5.1 The Monograph format

This is the traditional format. The whole thesis/dissertation is written as a single text usually in five to six chapters: Introduction, Literature Review, Methods (Materials and Methods), Results, Discussion (Results and Discussion) and Conclusion (Conclusion and Recommendations).

5.1.1 Typescripts and layout

- (a) Sequence of chapters/sections should be in the following order; Title Page, Abstract, Declaration (see details on respective section), Signature of the supervisor(s), Copyright (see details on respective section), Acknowledgement, Dedication (if any), Table of Contents, List of Tables, List of Figures, List of Appendices, List of Abbreviations and Symbols, Introduction, Literature Review, Materials and Methods, Results and Discussion, Conclusions, Recommendations, References and Appendices;
- (b) The title of the dissertation/thesis should not exceed 20 words;
- (c) Type text in 1.5 spacing on one side of A-4 size (80 g/m²) paper;
- (d) Paginate the preliminaries (portions preceding the introduction) in lower case Roman numerals (i.e. i, ii, iii, etc.) beginning with the title page. Number pages of the body of the thesis in Arabic numbers (1, 2, 3, etc.) consecutively throughout. The page numbers should appear at the center of the top margin;
- (e) Page margins should be as follows: The left hand margin should be 4.0 cm from the left edge of the paper, the right hand margin 2.5 cm from the right edge, the top margin 4.0 cm from the top of the page, and the bottom margin 2.5 from the bottom of the paper;
- (f) For dissertations/theses the title page should be arranged as follows:

Title of the dissertation/thesis in capital letters (well-centered); indicate your full name; under your name the following declaration statement should follow and be centered:

“A THESIS/DISSERTATION/PROJECT* (*whichever is applicable) SUBMITTED IN FULFILLMENT/PARTIAL FULFILLMENT* OF THE REQUIREMENTS FOR THE DEGREE/POSTGRADUATE DIPLOMA OF (*insert name of degree*) OF MBEYA UNIVERSITY OF SCIENCE AND TECHNOLOGY.”

- (g) Indicate the month and year in which the degree is to be awarded at the bottom of the title page;
- (h) The abstract should follow the title page and begin on new page. It should be concise but comprehensive (not more than 200 words for Postgraduate Diploma, not more than 300 words for Master’s Degree dissertation/thesis and not more than 350 words for PhD dissertation/thesis);
- (i) Every project/dissertation/thesis submitted for the Diploma/Degree should be accompanied by a declaration by the candidate to the satisfaction of Senate, i.e.,

I (Name of the candidate) declare to Senate that this dissertation/thesis is my own original work and that it has neither been submitted nor being concurrently submitted in any other institution.

- (j) The project/dissertation/thesis shall contain a statement of copyright by the author as follows:

No part of this Dissertation/Thesis may be reproduced, stored in any retrieval system, or transmitted in any form or by any means without prior written permission of the author or Mbeya University of Science and Technology in that behalf.

Table of contents should be sufficiently informative with specific page numbers of all chapters and sections indicated. List of Tables should be on a page by itself and arranged in the general format as the Table of contents. List of illustrations (Figures and Plates) should also be placed on separate page by itself and arranged in the same general format as the Table of Contents. The levels of section should not exceed four (e.g.; 1.0, 1.1, 1.1.1, 1.1.1.1) and the levels should be indented accordingly;

- (k) Ensure that typescripts are legible, and that the fonts as well as the format are consistent throughout. The font should be Times New Roman size 12;
- (l) To itemize within paragraph, use the forms (a), (b), (c), etc. Consecutive short sentences can also be itemized by starting them with a dash aligned to the left and ending them with a semi-colon; and
- (m) Spelling should follow that of the U. K. English Dictionary.

5.1.2 Footnotes

- (a) Include footnotes in the text only if their use is unavoidable.
- (b) Number them consecutively with a superscript number at the relevant author's name or point in the text.

5.1.3 Tables

- (a) Type each table on a separate sheet in case it covers more than half a page;
- (b) Number them consecutively using Arabic numbers (e.g. 1, 2, 3, etc.) in the same order they are referred to in the text;
- (c) Type adequate and self-explanatory captions above tables. For tables that are presented in a landscape format (horizontal), the caption and page number should be typed at the centre, in this case, it will appear on the left margin and not on the top margin as for portrait format;
- (d) Capitalise only the first letter of the first word of captions and of column headings in table except where otherwise necessary;
- (e) Use the fewest possible lines and avoid use of vertical lines to separate columns;

- (f) Place acknowledgements of source cited below tables, using the format; Source: Sospeter and Tweve (2020), etc;
- (g) Give references for tables in full only in the references list at the end of the Dissertation/Thesis and not as footnotes to the text;
- (h) The words - table, figure, appendix or map which refer to specific table, figure, map in the text should start with capital letter; and
- (i) Authors should take notice of limitations set by the size and layout of the document. For instance:
 - (i) Large tables should be avoided;
 - (ii) A table should not exceed the printed area of the page;
 - (iii) Fold-outs are not accepted in the main text; and
 - (iv) For long list of data, an attempt should be made to divide these over two or more tables or reduce the size using smaller fonts and/or photocopying machines to the extent that is readable.

5.1.4 Illustrations

- (a) Provide these on separate pages in case they cover more than half a page;
- (b) Number figures sequentially in Arabic numbers (e.g. Figure 1, 2, 3, etc.) and refer to them in the text in order of their appearance;
- (c) Type captions below figures;
- (d) Capitalize only the first letter of captions, except where otherwise necessary;
- (e) When referring to figures in the text, use the form Fig. 3: (Fig.4), etc;
- (f) Photographs are only acceptable if they are relevant and should help the reader to understand the subject matter. Photographs should have good contrast and intensity; and
- (g) Figures should not have borders/grids.

5.1.5 Units of Measure

- (a) Use SI (System International) units (see Appendix 3);
- (b) Spell out units unless they are preceded by numbers;

- (c) Note that abbreviations for units are the same in singular and plural, e.g. write “kg” not “kgs”; and
- (d) Express rates or amount per units in the form 50 kg/ha or 50 kg N/ha or 50 kg ha⁻¹. Do not write 50 kg/ha N. Leave space between the value and the unit of measure (e.g. 50 kg/ha).

5.1.6 Numbers

- (a) In numbers with four digits on either side of the decimal point, run digits together, e.g. 1000; 8285; 0.3284;
- (b) In numbers with more than four digits, leave a space (not a comma) between each group of three digits on either side of the decimal point e.g. 1 262 843; 256 421; 10 000; 0.032;
- (c) In columns of numbers (e.g. in tables) containing four or more than four digits, group the digits into hundreds, thousands, etc;
- (d) For the decimal point, use a stop, not a comma, e.g. write 0.2 not 0,2;
- (e) For numbers below unit, precede the decimal point with a zero, e.g. 0.62 not .62;
- (f) Spell out numbers from zero to nine, but use figures for higher numbers, e.g. six blocks; but 10, 15 blocks;
- (g) In a series of three or more numbers, use figures irrespective of magnitude, e.g. “In trials with 6 cultivars in Zambia, 4 in Malawi and 8 in Mozambique;”
- (h) Use figures whenever a number is followed by a unit of measure and for days, years, dates, page numbers, classes, etc., e.g. 5 kg, 2 g, 3 days, 1 year, 6 January, page 13, type 7, etc;
- (i) Spell out numbers that occur at the beginning of sentences. Ten students attempted.....;
- (j) Express fractions as decimals, though percentages and simple fractions can still be used;
- (k) For simple fractions, use the form one-quarter, two-thirds, not ½, 2/3, etc; and

- (l) Where possible, avoid large figures ending in several zeros. Either spell them out or use an exponential for part of the number; e.g. for 1600000 write 1.6 million or 1.6×10^6 .

5.1.7 Percentage

Use the % symbol only with figure, e.g. 92%, but spell out the words percent or percentage when they occur without figures.

5.1.8 Formulae and Equations

- (a) For formulae, use the internationally accepted format (see Appendix 4) – for a format from Elsevier Scientific Publishers); and
- (b) Equations should be numbered using roman numbers in their order of their appearance.

5.1.9 Time

Use the 24-hour clock, e.g. 0730 h, 2345 h, etc.

5.1.10 Date

Use the form 22 January, 2020; not 22nd January, 2020; January 22, 2020 or January 22nd, 2020.

5.1.11 Year

- (a) Write in the 2020s not in the 2020's;
- (b) For two calendar years write 2020-02, not 2020 02, 2020-2 or 2020-2021;
- (c) For single non-calendar years, i.e. parts of two years or seasons that extend over two years, write 2020/21 not 2020 21, 2020-21 or 2020-2021; and
- (d) For two non-calendar years, write 2020/21- 2021/22.

5.1.12 Local Terms

If local or unfamiliar terms are used, e.g. for plant or technical word, etc. give the scientific names in italics or underlined or a description when the terms are first used.

5.1.13 Abbreviations

- (a) A selected list of symbols and prefixes which, in addition to those for SI units, can ordinarily be used is given in Appendix 5. However, spell them out in full if they are used in an unfamiliar context;
- (b) Where it is wished to use abbreviations of organizations, technical terms etc., spell them out in full the first time they occur, followed by the abbreviation in brackets, e.g. Mbeya University of Science and Technology (MUST); Corona Virus Disease -19 (COVID-19), etc. Thereafter use the abbreviation only; and
- (c) In acronyms, degree designations, etc. it is usual to omit full stops, e.g. USA, not U.S.A., PhD not Ph.D.; FAO not F.A.O.

5.1.14 References or Literature Cited

- (a) List all references cited in full at the end of the text, and not as footnotes to the text pages, tables of figures,
- (b) The references should be arranged alphabetically by authors and all authors, surnames and initials should be included (i.e. never use et al.), followed by the year of publication in parentheses; a full stop, the title of the paper; report; book; etc. (as used in the original document and should not be abbreviated; the journal volume number; the issue number (only if the pagination starts afresh in each issue concerned). If the reference is to a book, the town of publication, the publisher, the edition number (if not the first) should be added. Journal and book titles should be underlined or italicized.

5.1.15 Citations in the Text

- (a) Cite references by author followed by year of publication with separating comma (e.g. Ahmed, 2020);
- (b) For two multiple authorship references cite both (e.g. Juma and John, 2013). For more than two cite the first mentioned, followed by et al. (meaning “and others”) (e.g. Mtui et al., 2015) but cite them in full lists of references;
- (c) Citations in the text should take the following forms:

- (i) have been reported by Silla *et al.* (2019);
 - (ii) and Emmanuel and Bakari (2018) found that
 - (iii) other results (Ruambo and Mrindoko, 2020; Namayala, 2019; Tito, 2019, John, 2020) have indicated that
 - (iv) Katambara (2018, 2019) found that (Papers published by the same author in two different years; and
 - (v) John (2020a, b).... (two papers published by the same author in the same year); and
 - (vi) Personal communication, (J. Smith, personal communication, May 17, 2020).
- (d) Secondary citations can take the form..... Arthur *et al.* (2019), cited by Mwakalapa *et al.* (2020);
 - (e) Secondary citation should be kept minimum possible or where possible avoided all together. Citations presented as “personal communications” shall not be allowed;
 - (f) In order for a Project/Thesis/Dissertation to be recommended for examination at least 45% of all references cited should be journal articles and published not older than 5 years. Journal articles may include ones accessed through electronic databases.

5.1.16 Citations in List of References

- (a) Cite references in alphabetical order of author(s) and in order of year of publication;
- (b) For references with same author(s) and year of publication, start with papers by the same author being arranged in the order (1) single author, (2) two authors alphabetically according to the name of the second author, and (3) several authors chronologically with 1981a, 1981b, etc. for papers published in the same year;
- (c) References by one author take precedence over references by the same plus additional authors irrespective of the year of publication;

- (d) Avoid using Anon. or Anonymous where possible. Where no name of an author is given, use the name of the sponsoring or issuing organization, ministry and department etc. if it can be identified; and
- (e) Separate authors by semi-colons.

5.1.17 Order of Citation Details

The following guidelines and examples are designed to show the main elements that should be cited and the order in which they should appear in references for the three main classes of publication most likely to need inclusion in list of references.

(a) Journals

- (i) Author's name(s) and initials for forenames;
- (ii) Year of publication in brackets; followed by a period/full stop
- (iii) Title of published paper;
- (iv) Name of journal or publication; spelt in full, omitting any definite article (i.e. The) at the beginning, and underlined; or in italics throughout.
- (v) Volume and/or issue number; and
- (vi) First and last page numbers (in full) for journal papers; total number of pages for publications referred to as a whole.

(b) Books

- (i) Author's or editor's name(s) and initials, name of sponsoring or issuing organization or corporate body in the absence of a named personal author or editor;
- (ii) Year of publication in brackets, followed by a period/full stop;
- (iii) Title of book to be underlined or in italics;
- (iv) Name of publisher and town, in that order; and
- (v) Total number of pages in the form: 250pp.

(c) Individual chapters in multi-authored books

- (i) Author's name(s) and initials;
- (ii) Year of publication in brackets; followed by a period/full-stop;
- (iii) Title of chapter or article, followed by the word In;

- (iv) Title of book underlined or in italics;
 - (v) The words “Edited by”, followed by the name(s) and initials of the editor(s) of the publication, underlined and enclosed in brackets;
 - (vi) Name of publisher and town, in that order;
 - (vii) First and last page numbers of chapter, article, part, or section: pp. 18 – 24.
- (d) Proceedings of conferences/workshop/monographs**
- (i) Author(s) name(s) and initials;
 - (ii) Year in bracket; followed by a period or full-stop;
 - (iii) Title of article; followed by: In:
 - (iv) Title of proceeding or workshop underlined/italics;
 - (v) Name of Editor(s) in brackets;
 - (vi) Date of the conference; town; country; Vol. (if any) page numbers
(see examples for slight variations: section 18); and
 - (vii) First and last pages of the article: pp. 180 – 194.
- (e) Dissertation and Theses**
- (i) Author(s) name(s) and initials;
 - (ii) Year in bracket; followed by a period or full-stop;
 - (iii) Title of the dissertation;
 - (iv) Name of the host institution;
 - (v) First and last pages of the section referred to.
- (f) Citing from electronic sources**
- (i) Author’s name;
 - (ii) Publication date (in brackets);
 - (iii) Internet address [in square brackets]; and
 - (iv) Date of visit to the website.
- (g) Personal communication**
- Name and date (e.g. Smith), personal communication, (date e.g. May 17, 2020).

5.1.18 Proof-reading and editing

- (a) Candidates shall ensure that the written research proposal report/dissertation/thesis demonstrates a high standard of proof-reading and copy editing (including attention to layout, spelling, grammar, sentence structure) before submission. The dissertation/thesis shall be checked for accuracy, including references, cross- references and sequences of numbers. Figures, diagrams and tables should be numbered sequentially in the manuscript;
- (b) Candidates shall note that, as a general rule, supervisors are not expected to edit a dissertation/thesis. If a dissertation/thesis requires editing, the supervisor(s) may advise the candidate of the need and, if appropriate, give advice on where to obtain help with typographical proof-reading and editing;
- (c) Costs accrued from editorial works are responsibility of the candidates; and
- (d) Candidates are responsible for ensuring that no changes are introduced to the intellectual content in the process of typographical editing.

5.1.19 Submission of Project/Dissertation/Thesis

Respective Colleges/departments should ensure enough time is provided for project/dissertation/thesis preparation, submission and examination before the graduation. The supervisor has the mandate to decide whether the student is ready to submit or not.

5.1.20 Submission for examination

The candidate should submit at least four (4) spiral copies to the respective Department for examination. However, candidates should not submit their dissertations for examination until their main supervisors have read them and certified in writing that the dissertation is ready for examination. Regulations regarding submission and examination of Projects/Dissertations/Theses are presented in the Postgraduate Students Regulations 2019.

5.1.21 Final submission

- (a) It is advisable to have Department/College Postgraduate Studies Committee check the unbound dissertation/thesis before sending it for hard-binding;
- (b) After certification by the supervisor that the candidate has satisfactorily incorporated all the recommended corrections, the candidate shall submit five hard bound copies of the dissertation/thesis to the Secretariat, Senate Postgraduate Studies Committee. Each copy shall be bound black;
- (c) Candidates will also be required to submit in a separate cover, one hard copy and one electronic copy of an extract giving short account of the project/ dissertation/thesis. The extract shall include a running title, an introduction, summary of innovative findings, their perceived usefulness in outreach/industrial/commercial applications and an indication of areas where the results may find immediate application opportunities. The extract shall not exceed 1000 words. Any submission without the extract shall be deemed to be incomplete and therefore not ready for error free certificate;
- (d) The spine shall be embossed in gold, bearing:
 - (i) Surname and initials of the candidate;
 - (ii) Acronym for the degree for which the dissertation/thesis is being submitted; and
 - (iii) Year of degree award.
- (e) The writing on the spine shall read from the bottom to the top;
- (f) The title of the work shall be printed in gold letters on the front cover of the bound volume;
- (g) Before hard binding the dissertations/theses, candidates are advised to refer to already bound and approved copies in the library; and
- (h) Final copies of the Projects/Dissertations/Theses should be submitted one month prior to official date of graduation ceremony.

The final submission of projects/dissertations/theses shall comprise the following:

(a) For PhD:

- (i) PhD dissertation/thesis shall have the minimum of 200 pages and maximum of 300 pages with a tolerance of 10% above this limit, i.e. up to 30 extra pages, including appendices and footnotes;
- (ii) Error-free certification written by supervisor to the DVC-ARC through the Head of Department and Principal of College;
- (iii) Soft copy of the dissertation/thesis in PDF and word formats and supporting research materials (e.g. computer codes and data);
- (iv) At least four (4) hard bound copies as prescribed SHOULD standards; and
- (v) Evidence of payment of all University fees from the Bursar's office and certification that there are no outstanding dues by the candidate.

(b) For Masters:

- (i) A master's dissertation/thesis shall have the minimum of 70 pages and maximum of 100 pages with a tolerance of 10% above this limit, i.e. up to 10 extra pages, including appendices and footnotes;
- (ii) Error-free certification written by supervisor to the DVC-ARC through Head of Department and Principal of College;
- (iii) Soft copy of the dissertation/thesis in PDF and word formats and supporting research materials (e.g. computer codes and data);
- (iv) At least four (4) hard bound copies as prescribed SHOULD standards; and
- (v) Evidence of payment of all University fees from the Bursar's office and certification that there are no outstanding dues by the candidate.

(c) For Postgraduate Diploma

- (i) Research project report shall have a minimum of 50 pages and a maximum of 70 pages with a tolerance of 10% above this limit, i.e. up to 7 extra pages, including appendices and footnote;
- (ii) Error-free certification written by supervisor to the DVC-ARC through the Head of Department and Principal of College;
- (iii) Soft copy of the dissertation/thesis in PDF and word formats and supporting research materials (e.g. computer codes and data);
- (iv) At least four (4) hard bound copies as prescribed MUST standards; and
- (v) Evidence of payment of all University fees from the Bursar's office and certification that there are no outstanding dues by the candidate.

5.1.22 Dissertation/Thesis developed in a published papers format

- (a) Number of published/Accepted/ submitted papers for PhD Candidates
 - (i) The candidate should have at least two/three full-length papers emanating solely from his/her PhD studies.
 - (ii) Two of the said papers should be either “published”, “in press” or “accepted” in peer reviewed scientific journal(s).
 - (iii) One of the said papers should be either “published”, “in press” or “accepted” in peer reviewed scientific journal(s). The second paper may have the status “submitted”.
- (b) Number of published/accepted/submitted papers for Master Candidates
 - (i) The candidate should have at least two full-length papers emanating solely from his/her Master studies.
 - (ii) One of the said papers should be either “published”, “in press” or “accepted” in peer reviewed scientific journal(s). The second paper may have the status “submitted”.

5.1.23 Format and authorship for published/submitted papers

- (a) The format and writing style of the individual manuscript shall be determined by the targeted journal;

- (b) In case of multiple authorship in the published paper, the candidate should appear as first or second author;
- (c) In case part of the work was performed in collaboration with another investigator and/or student(s); the candidate should submit a separate letter explaining the kind of collaboration involved that is; which parts of the dissertation/thesis describe results from collaboration, and what was the role of the candidate in the collaboration; and
- (d) For such a work, a letter from the student's main supervisor should accompany the submitted dissertation/thesis. The letter should indicate the particular contribution of the student to each paper (in the case of multi-author papers). It should also indicate that the submitted articles were not and will not be part of other dissertations/theses in the "Published Papers" format.

5.1.24 Typescript and layout

The Dissertation/Thesis shall have common sections consisted of extended abstract, introduction, conclusions, references, list of published papers followed candidate's declaration to Senate. These sections should follow the MUST monograph format.

5.1.25 Extended abstract

Extended abstracts should be written to include the following headings: Introduction, Methods, Findings, Conclusion and Recommendations. Extended abstracts should not exceed 4 pages including the references.

(a) Introduction

One to two paragraphs at the most. The introduction section should present the scope and objective of the study and state the problem in a condensed manner.

(b) Methods

The methodology should be clearly stated and described in sufficient detail or with sufficient references.

(c) Findings

The findings and discussion of the work should be explicitly described and illustrated. Supporting figures, tables and images of the results (not more than two figures and two tables) may be included in the extended abstract.

(d) Conclusions

Conclusions should include the principles and generalizations inferred from the results and key recommendations.

(e) References (Refer sections 5.1.16 and 5.1.17).

5.1.26 Copyright (Refer section 5.1.1 (l))

5.1.27 List of publications

The candidate should list all papers that are included in the dissertation/thesis. The list should include the authors, year, title, journal/expected journal, volume, page (if published).

5.1.28 Declaration

Refer to section (5.1.1 (j)) in the monograph format.

5.1.29 Dissertation/Thesis developed in a publishable manuscripts format

Dissertation/Thesis in publishable manuscript (manuscript-within-thesis) format shall consist of chapters in form of publishable papers. Writing of dissertation/thesis under this category shall follow MUST Guidelines.

(a) Typescript and layout

The dissertation/thesis shall have common sections consisting of extended abstract (refer section 5.1.25), copyright (refer section 5.1.1 (k)), and list of paper chapters followed by candidate's declaration to Senate (refer section 5.1.1(j)).

(b) Chapters of the Manuscript

Each chapter/paper forming the manuscript shall consist of a title, abstract, Introduction, Material and Methods, Results, or Results and Discussion, Conclusions and References of the chapter.

5.1.30 Attachments

Appendices should contain detailed data or information that explains the summaries provided in the main text. All lists of attachments should be referred to in the text.

6.0 BIBLIOGRAPHY

Eastern Africa Statistical Training Centre (2018).Guidelines for Preparation and Submission of Research Proposals and Dissertations/ Theses. 46pp.

The Nelson Mandela African Institution of Science and Technology (2019).Guidelines for Preparation and Submission of Students Research Proposals and Dissertations/Theses/Project report, and Conduct of Students' Research. 28pp.

Makerere University (2011).Guidelines for the Format of Research Proposals, Research Reports, Thesis and Dissertations. 29pp.

Sokoine University of Agriculture (2008).Revised Guidelines forPreparing Thesis/Dissertation and Other Scientific Publications, 4th ed. 55pp.

7.0 LIST OF ATTACHMENTS

Appendix 1: Registration of Topic for Project /Dissertation /Thesis

Appendix 2: Registration of Topic for Project /Dissertation /Thesis

Appendix 3: Selected Symbols for Units and Prefixes

Appendix 4: Formulae

Appendix 5: Selected Abbreviations and Acronyms

Appendix 6: Citation and Referencing Format

APPENDIX 1: REGISTRATION OF TOPIC FOR PROJECT /DISSERTATION /THESIS

Student's surname		Student Registration No.	
First names			
Postal address:			
Phone:	E-mail:		
Cell phone:			
Gender:	M/F		
Nationality:			
Prior qualifications:			
Provisional title of dissertation			
College			
Department			
Degree			
Principal supervisor			
Position		Qualifications	
Co-supervisor(s)			
Position		Qualifications	
Supervisor comments			

Signed
Principal Supervisor _____ **Date:** _____

Signed
Student _____ **Date:** _____

College approval _____ Date of recorded Minutes _____

Signed _____ **Date:** _____
(HoD)

Signed _____ **Date:** _____
(Principal)

APPENDIX 2: REGISTRATION OF TOPIC FOR PROJECT /DISSERTATION /THESIS

Student's surname		Student Registration No.	
First names			
Postal address:			
Phone:	E-mail:		
Cell phone:			
Gender: M/F			
Nationality:			
Prior qualifications:			
Provisional title of dissertation			
College			
Department			
Degree			
Principal supervisor			
Position		Qualifications	
Co-supervisor's			
Position		Qualifications	
Supervisor comments			

Summary (Insert a summary of approximately 250words)

Key terms (Max. 10 words or phrases)	
--------------------------------------	--

APPENDIX 3: SELECTED SYMBOLS FOR UNITS AND PREFIXES

Symbol	Description	Symbol	Description
A	ampere	K	Kelvin
Å	Angstrom	lm	lumen
atm	atmosphere	lx	lux
Bar	Bar	m	metre
c	centi ($\times 10^2$)	m-	milli- ($\times 10^{-3}$)
$^{\circ}\text{C}$	degree Celsius	mbar	millibar
cal	calorie	M	mega- ($\times 10^3$)
d	day	μ	micro- $\times 10^{-6}$
d-	Deci- ($\times 10^{-1}$)	min	minute
F	Farad	L	litre
$^{\circ}\text{F}$	degree Fahrenheit	n-	nano- ($\times 10^{-9}$)
ft	foot (feet)	N	Newton
g	gram	O	Ohm
h	hour	Pa	Pascal
ha	hectare	s	second
hp	horsepower	t	tonne
Hz	hertz	V	volt
J	joule	W	Watt
k	Kilo ($\times 10^3$)		

APPENDIX 4: FORMULAE

1. Formulae should be typewritten, if possible leave ample space around the formulae;
2. Subscripts and superscripts should be clear
Greek letters and other non-Latin symbols should be explained in the footnote where they are first used. Take special care to show clearly the differences between zero (0) and the letter O, and between one (1) and the letter l.
4. Give an interpretation of all symbols immediately after the equation in which they are first used.
5. For simple fractions use the solidus (/) instead of a horizontal line, e.g. $\frac{1p}{2m}$ rather than $\frac{1p}{2m}$.
6. Equations should be numbered serially at the right-hand side in parentheses. In general, only equations explicitly referred to in the text need to be numbered.
7. The use of fractional powers instead of root signs are recommended. Also, powers of log e are often more conveniently denoted by exponent.
8. Levels of statistical significance which can be mentioned without further explanations are *P < 0.05, **P < 0.01, ***P < 0.001.
9. Levels of significance for comparable means should be written in superscript in a table and be defined as footnote below the table.
10. In chemical formulae, valence of ions should be given as, e.g. Ca²⁺ and CO₃²⁻, not as Ca⁺⁺ or CO₃⁻⁻.
11. Isotopes numbers should precede the symbols, e.g. ¹³O.
12. The repeated writing of chemical formulae in the text is to be avoided where reasonably possible; instead, the name of the compound should be given in full. Exceptions may be made in the case of a very long name occurring very frequently or in the case of a compound being described as the end product of a gravimetric determination (e.g. phosphate P₂O₅).

APPENDIX 5: SELECTED ABBREVIATIONS AND ACRONYMS

Symbol	Description	Symbol	Description
a.e.	acid equivalent	NFE	nitrogen-free extract
a.i.	active ingredient	n.s	no significant difference
approx.	Approximately	OM	Organic Matter
CEC	cation exchange capacity	pH	Hydrogen ion concentration
CF	crude fibre	post-em	post-emergence
cm	centimeter	p.p.m.	parts per million
CP	crude protein	pre-em.	pre-emergence
CV	coefficient of variation	r	correlation coefficient
cv	cultivar	RH	Relative Humidity
DE	digestible energy	r.p.m.	revolutions per minute
DM	dry matter	s.d.	standard deviation
e.g.	That is	s.e	standard error
F1	first filial generation	SNF	solids not fat
i.e.	for example	sp.	species (singular)
IU	international unit	spp.	species (plural)
NW	northwest	TDN	total digestible nutrients
M	molar	UV	ultraviolet
Max.	maximum	var. vars	variety(ies)
Min.	minimum	wt.	weight
NAR	net assimilation rate	vol.	volume

APPENDIX 6: CITATION AND REFERENCING FORMAT

1. CITATION AND REFERENCING

For an academician or scholar to produce a sound and rigorous written work, it is important to acknowledge and cite references honestly and professionally. Every time you make a statement, a claim, an assertion, an opinion, you **MUST** show your audience the **EVIDENCE** on which it is based. Degree study, especially at the Postgraduate level, is built on establishing the validity, reliability, integrity, and relevance of the evidence that underpins one's opinions.

When you refer to someone else's words or ideas in your text, the source should be acknowledged by stating the author and year. You must always acknowledge your sources otherwise you will be guilty of **PLAGIARISM** which could lead to a disciplinary procedure.

Importance of citation and referencing

In general, referencing helps in the following:

- a) Showing the breadth of the research;
- b) Strengthening academic argument(s);
- c) Showing the reader the source of information;
- d) Allowing the reader to consult sources used independently; and
- e) Allowing the reader to verify data presented.

Citation and reference is used whenever you use someone else's opinions, theories, data or organisation of material. The kinds of information you use from others will vary and may include:

- a) Theories;
- b) Points of views;
- c) Opinions;
- d) Research findings;
- e) Diagrams; and
- f) Statistics.

Citing

When you are writing an assignment or any other academic work such as a dissertation, an article, a chapter or a book and you use someone else's ideas you are required to acknowledge the source where you got that information. This is what is known as citing (or referencing).

Citing means acknowledging the source you have read by adding the name of the author and the year of publication in the text of written work.

References

In writing an essay, an article or any academic work one is required to:

- a) Provide a detailed description of sources that have been consulted.
- b) This list should be presented using a specific referencing system.
- c) References should be provided within the text, immediately following information taken from another source.

Full details of all references are normally listed alphabetically by authors' name at the end of the document in the form of a *Reference List*.

A reference list is a list of **ALL** the sources that has been referred to in the writing or text. It is therefore wrong to omit in the reference list any source that has been mentioned in the text.

Referencing systems

There are two main parts to citing references:

- a) How the author acknowledge the sources in the text.
- b) How the author list sources at the end of the work in the reference list

Also, there are two main systems of linking references in the text to the full bibliographical details at the end the work:

- Numeric system - sometimes called Vancouver or Footnote; and
- Harvard system/APA System - sometimes called The Author-Date System.

However, these Guidelines will use The Author -Date System, called American Psychological Association style of referencing in writing Projects, Dissertations and Thesis.

2. IN-TEXT CITATIONS

APA is known as an author- date style of referencing because only the author's surname and the year of publication are necessary to refer to in the body of the essay itself. The rest of the information can be found in the reference list, at the end of your essay. Source material must be documented in the body of the paper by citing the author(s) and date(s) of the sources. The underlying principle is that ideas and words of others must be formally acknowledged. The reader can obtain the full source citation from the list of references that follows the body of the paper.

3. BOOKS AND JOURNALS

Most of your citations should come from **books** (in the library) and **journals** (also known as periodicals). There are different ways that you can structure your sentences, you might want to include the author's surname into the sentence itself. When the names of the authors of a source are part of the formal structure of the sentence, the year of publication appears in

parentheses following the identification of the authors. Consider the following example:

Veish and Langer (2015, p. 39) found that

4. MULTIPLE AUTHORS

When a source include authors, include the author name(s) every time the source is cited. In parenthetical citations, an ampersand (&) between names for a work with two authors or before the last author when all names must be included to avoid ambiguity. In narrative citations, spell out the word “and”.

Consider the following examples:

..... (Luna, 2020).

Luna (2020) states

(Salas & Agostino, 2020).....

Salas and Agonostino (2020) argue that...

When a source that has authors is cited, include the name of only the first author plus “et al.” (an abbreviation **three or more “ et alia”** which means “and others”) in every citation, including the first citation, unless doing so would create ambiguity.

Consider the following example:

Reviews of research on religion and health have concluded that at least some types of religious behaviours are related to higher levels of physical and mental health(Salsman et al., 2015, p. 3761).

Salsman et al. (2015, p. 3761) showed that

In the reference list a source which has three or more authors, ALL the authors (up to 20) are spelt out in the reference list. If there are more than 21 authors....”...” is used between the 19th author and last author with “.....”

For example:

Kalnay, E., Kanamitsu, M., Kistler, R., Collins, W., Deaven, D., Gandin, L., Iredell, M., Saha, S., White, G., Woolen, J., Zhu, Y., Chelliah, M., Ebisuzaki, W., Higgins, W., Janowiak, J., Mo, K.C., Ropelewski, C., Wang, J., Leetmaa, A., ... Joseph, D. (1996). The NCEP/NCAR 40-year reanalysis project.

5. AVOIDING AMBIGUITY – WHICH ONE IS WHICH?

Sometimes multiple works with three or more authors and the same publication year shorten to the same in-text citation, which creates ambiguity (more than one interpretation). To avoid this, when the in-text citations of multiple works with three or more authors shorten to the same form, write out as many names as needed to distinguish the references and abbreviate the rest of the names to “et al.” in every citation.

For example, two works have the following authors:

Maxwell, Scourfield, Holland, Featherstone, and Lee (2012).....

Maxwell, Scourfield, Featherstone, Holland, and Tolman (2012).....

Both these citations shortened to Maxwell et al. (2012). To avoid ambiguity when citing them both in your work, cite them as follows:

Maxwell, Scourfield, Holland, et al. (2012).....

Maxwell, Scourfield, Featherstone, et al. (2012).....

Because “et al.” is plural (meaning “and others”), it cannot stand for only one name. When only the final author is different, spell out all names in every citation.

Hasan, Liang, Kahn, and Jones-Miller (2015).....

Hasan, Liang, Kahn, and Weintraub (2015).....

6. WORKS WITH THE SAME AUTHOR AND SAME YEAR

When multiple references have an identical author (or authors) and publication year, include a lowercase letter (a, b, c, etc.) after the year. The year-letter combination is used in both the in-text citation and the reference list entry. Use only the year with a letter in the in-text citation, even if the reference list entry contains a more specific date.

For example:

..... (Judge & Kammeyer-Mueller, 2012a)

Judge and Kammeyer-Mueller (2012b).....

Assign the letters a, b, etc. in the order the works appear in your reference list. Your reference list is arranged alphabetically by author, then year, then title. In the titles, J comes before O, so these two references will be ordered like this in the reference list:

Judge, T. A., & Kammeyer-Mueller, J. D. (2012a). Job attitudes. *Annual Review of Psychology*, 63, 341- 67. <https://doi.org/10.1146/annurev-psych-120710-100511>

Judge, T. A., & Kammeyer-Mueller, J. D. (2012b). On the value of aiming high: The causes and consequences of ambition. *Journal of Applied Psychology*, 97(4), 758-775. <https://doi.org/10.1037.a0028084>

7. AUTHORS WITH SAME SURNAME

If the first authors of multiple references share the same surname but have different initials, include the first authors' initials in all in-text citations, even if the year of publication differs. Initials help avoid confusion within the text and help readers locate the correct entry in the reference list.

For example:

..... (J. Taylor & Neimeyer, 2015; G. Taylor, 2015)

If the authors have the same surname and the same initials, then you write out their given names in full.

For example:

..... (James Taylor, 2015) and (John Taylor, 2015)

8. CITING A SOURCE MULTIPLE TIMES IN ONE PARAGRAPH

Sometimes you might want to use one particular source several times during one paragraph. Putting an in-text citation after every sentence that comes from that source would look awful and break the flow of your writing... but leaving the in-text citations out risks plagiarism. Introduce the source early in the paragraph, with the author as part of the sentence rather than in brackets. For example: Bryman (2016, p. 100) describes several aspects of the data gathering process. For the rest of the paragraph, you can refer back to the author by name or pronoun when elaborating on their ideas. For example: He notes that the relevance and number of questions can affect participation rates. Bryman also found that... As long as it is clear to the reader that all of the ideas come from that same source, there is no risk of plagiarism and the paragraph flows well.

It is **NOT ACCEPTABLE** to use several statements or ideas from one source throughout a paragraph and use one citation at the end of the paragraph to "cover" all the information within. If only one citation is used at the end it appears that only the final sentence is from that particular source, and the rest of the information is the writer's own ideas. **THIS IS STILL PLAGIARISM.** A citation only covers the sentence (or in the case of blocked quotations that are longer than 40 words, the quotation) that it is part of. One citation at the end of a paragraph **DOES NOT** cover the entire paragraph.

9. WHICH SOURCES SHOULD I USE?

The best sources to use in academic writing are those that have been through some kind of review process. When an article gets submitted to a journal it is read and critiqued by other academics. This is known as peer review. Books go through a similar process in the publishing world. Sources such as WIKIPEDIA, or RANDOM PAGES on the internet have not been through a peer review process, and so are not generally favoured by your tutors as valid and appropriate sources to use in your essays.

Think about the sources you are choosing when you write your assignments.

Ask yourself:

- i. Is there a date of publication?
- ii. Is there a name or names?
- iii. Is there evidence of some kind of review process before it has gone on the internet?

10. SOURCES THAT YOU HAVEN'T READ YOURSELF

Every effort should be made to cite only sources that you have actually read. When it is necessary to cite a source that you have not read, use the following format for the text citation and list only the source you have read in the Reference list:

In-text citation:

Hayes (as cited in Bell & Waters, 2014, p. 183) stated that research focus groups... OR

Research focus groups..... (Hayes, 2000, as cited in Bell & Waters, 2014).

Reference list:

Bell, J., & Waters, S. (2014). *Doing your research project: A guide for first-time researchers* (6th ed.). McGraw-Hill Education.

11. PERSONAL COMMUNICATIONS

These may be letters, memos, email, personal interviews, telephone conversations, and the like. However, in order to use a quotation from someone you must get that person's permission and you must make notes of the interview or phone call.

You cannot quote someone without his or her knowledge and permission. This is simply not ethical. When a person is interviewed for this type of information, they may request that you give them a copy of your notes of the conversation to be approved by them, prior to you using it in your assignment. Because personal communications are non-recoverable data, they are not included in the reference list. Cite them in the text only. Give the initials as well as the surname of the communicator and provide as exact a date as possible.

E. M. Paradis (personal communication, August 8, 2019).....

or

..... (T. Nguyen, personal communication, February 24, 2020)

12. DOIs AND URLs

A digital object identifier (DOI) is a unique alphanumeric string that identifies content and provides a persistent link to its location on the internet. DOIs can be found in database records and the reference lists of published works. A uniform resource locator (URL) specifies a location of digital information on the internet and can be found in the address bar of your internet browser. URLs in references should link directly to the cited work when possible. Include a DOI for all works that have a DOI, regardless of whether you used the online version or the print version. If a print work does not have a DOI, do not include a DOI or URL in the reference. If an online work has both a DOI and a URL, include only the DOI.

If an online work has a URL but no DOI, include the URL in the reference as follows:

For works without DOIs from websites (not including academic research databases), provide a URL in the reference (as long as the URL will work for readers).

For example:

- i.** For works without DOIs from most academic research databases, do not include a URL or database information in the reference because these works are widely available. The reference should be the same as the reference for a print version of the work. Examples of academic research databases and platforms that are widely available include CINAHL, Ebook Central, EBSCOhost, Google Scholar, JSTOR, MEDLINE, and Science Direct.
- ii.** For works from databases that publish works of limited circulation or original, propriety material available only in that database (e.g. intranet material for an organization), include the name of the database and the URL of the work. If the URL requires a login, provide the URL of the database or archive home page or login page instead of the URL for the work.

13. FORMAT OF DOIS AND URLS

Present both DOIs and URLs as hyperlinks (i.e. beginning with “*http:*” or “*https:*”). Because a hyperlink leads readers directly to the content, it is not necessary to include the words “Retrieved from” or “Accessed from” before a DOI or URL.

It is acceptable to use either the default settings for hyperlinks in your word processing program (e.g. usually blue font, underlined) or plain text that is not underlined. Links should be live of the work is to be published or read online.

The format for the DOI in the reference list is:

<https://doi.org/xxxxx>

The string “https://doi.org/” is a way of presenting a DOI as a link, and “xxxxx” refers to the DOI number.

This DOI format is a direct link to the work. It simplifies and standardizes retrieval. Copy and paste the DOI or URL from your web browser directly onto your reference list to avoid transcription errors. DO not change the capitalization or punctuation of the DOI or URL. Do not add a period (full stop) after the DOI or URL because it may interfere with the link functionality.

14. ONLINE SOURCES

You will also need to use sources from the internet when you write essays. Some of these have authors, some have titles only and no author, and some have no date. There are rules to follow in all of these scenarios.

If there is an author use the author-date format, just like you would for a book or article, for example (Smith, 1990). To cite a specific part of a source, indicate the page, chapter, figure, table, or equation at the appropriate point in text. Always give page numbers for quotations. Note that the words page and chapter are abbreviated in such text citations:

Example:

..... (Cheek & Buss, 1981, p. 332).
..... (Shimamura, 1989, chap. 3).

15. SOCIAL MEDIA

If you paraphrase or quote information from social media, provide a reference list entry and in-text citation (author and year). Author. (Year, month, day). Title [format]. Website name. https://...

- i. Include either the author’s last name and initials or the corporate author name.
- ii. Provide any social medial identity information in square brackets after the name.
- iii. Provide as specific a date as is available on the webpage. This might be a year only; a year and month; or a year, month and day.

16. CHAPTER FROM AN EDITED BOOK WITHOUT A DOI

Format:

Author, A. A. (year). Title of chapter. In B. Editor & C. Editor (Eds.), Title of book (2nd ed., pp. pages of chapter). Publisher.

Reference:

Casida, J.E. (2010). Pest toxicology: The primary mechanisms of pesticide action. In R. Krieger (Ed.), Hayes' handbook of pesticide toxicology (3rd ed., pp. 103-117). Academic Press.

Citation:

Casida (2010, p. 105) states ... OR ... (Casida, 2010, p. 105)

17. CHAPTER FROM AN EDITED BOOK WITH A DOI

Format:

Author, A. A. (year). Title of chapter. In B. Editor & C. Editor (Eds.), Title of book (2nd ed., pp. pages of chapter). Publisher.
<https://doi.org/10.xxxx/xxxxxx>

Reference:

Wall, R., & Rafferty, A. M. (2017). Trouble with “status”: Competing models of British and North American public health nursing education and practice in British Malaya. In H. Pols., C.M. Thompson., & J. H. Warner (Eds.), Translating the body: Medical education in Southeast Asia (pp. 67-94). Nuss Press. <https://doi.org/10.2307/j.ctv1xxzqp>.

Citation:

Wall and Rafferty (2017, p. 82) state ... OR ... (Wall & Rafferty, 2017, p.82)

18. PERIODICALS

Periodicals include journals, magazines, newspapers, newsletters and even blogs and other online platforms that publish articles. Specifically, journals and periodicals might have volume/issue numerals and are more preferred in academic writing. For example, they might be volume 6, number 2. In this case the volume numeral is in italics followed by the number in brackets but not italics. Example; 34(2).

a. Journal Article With a DOI

Use sentence capitalisation in the article title. Capitalise the first letter of each main word in the journal title. Italicise the journal title and volume number. Add the issue number if available, include the DOI number; it usually appears on the first page of the article.

Format:

Author, A. A., Author, B. B., & Author, C. C. (year). Title of article. Title of Periodical, xx, pp-pp. <https://doi.org/xxxx>

Reference:

Montayre, J., Dimalapang, E., Sparks, T., & Neville, S. (2019). New Zealand nursing students' perceptions of biosciences: A cross-sectional survey of relevance to practice, teaching delivery, self-competence and challenges. *Nurse Education Today*, 79, 48-53. <https://doi.org/10.1016/j.nedt.2019.05.013>

Citation:

Montayre et al. (2019, p. 52) states ... OR ... (Montayre et al., 2019, p. 52)

b. Journal Article With No DOI, With A Non-database URL

Only include the URL if the article is accessible online to all readers. Do not include a URL from a library database; in these cases, the reference ends after the page range.

Format:

Author, A. A., Author, B. B., & Author, C. C. (year). Title of article. Title of Periodical, xx, pp-pp. <https://xxxxx>

Reference:

Akin, D., & Huang, L. M. (2019). Perceptions of college students with disabilities. *Journal of Postsecondary Education and Disability*, 32(1), 21-33. <https://www.ahead.org/professionalresources/publications/jped/archived-jped/jped-volume-32>

Citation:

According to Akin and Huang (2019, p.21) ... OR ... (Akin & Huang, 2019, p.21)

c. Journal Article Without A DOI, from an Academic Research Database

This is for a journal article found on an academic institution database. A URL for the database is provided instead of a DOI, e.g. <http://ezproxy.sit.ac.nz:xxxxx>

Do not include the database name or URL.

Reference:

Whitehead, A., & Gould Fogerite, S. (2017). Yoga treatment for chronic non-specific low back pain. *Explore: The Journal of Science & Healing*, 13(4), 281-284.

Citation:

Whitehead & Gould Fogerite (2017, p. 282) states ... OR ...
(Whitehead & Gould Fogerite, 2017, p. 282)