

**SCHOOL OF TECHNOLOGY, COMPUTING AND ENGINEERING****COURSES THAT MUST BE COMPLETED BY POSTGRADUATE STUDENTS TO PREPARE FOR RESEARCH**

TM 501: Project
Contact Hours 100
Credit Units 5
Level Year 1
Recess Term

(a) Course Description

This course gives the student a platform to make an industrial standard application of ICT. The candidate, together with the supervisor, work on a novel problem from conceptualization to testing. It is then presented to the panel for examination and grading.

(b) Course Objectives

The objective of the course is

- To equip the student with skills of holistically applying ICT in a real-life environment
- To enable students, apply the content of what he/has studied in a real life set up
- To strengthen the skills of the student in using ICTs to solve problems

(c) Learning Outcomes

By the end of the course, student will be able to conceptualize, plan, implement, document and defend a complete ICT solution to a real-life problem

(d) Detailed Course Outline

The content will depend on the problem addressed. The supervisor is responsible to ensure that it is complete.

(e) Mode of Delivery

The candidate works hand in hand with the supervisor to develop the concept, proposal, report and the developed system. The supervisor guides as and when he/she feels some improvements need to be made. He/she also manages the schedule of the project to ensure timeliness.

(f) Assessment

Assessment is done by a panel of experts who evaluate the process, novelty and proficiency of the student.

(g) References

References depend on what is being developed

Masters

TM 600: Research Methodology Seminars

Credit Units: 3

Contact Hours: 45

Course Description

These research seminars are designed to expose the participants to analyze and apply the knowledge, skills and values acquired in the Advanced Research Methodology and other modules in practical academic setting and research. It is intended to get the participants fully grounded in designing, conducting and disseminating findings of research studies. The Module thus prepares the participants for developing their dissertations and term papers. The seminar is designed to expose the participants to a range of research ideas and skills central to carrying out sound socioenvironmental inquiry. Besides receiving lectures from Guest-speakers on different research issues, each student will be expected to present a critique of a research output in monitoring and evaluation. Participants are also required to work closely with their supervisors and present their research proposals to their peers. It is expected that by the end of these seminars, each participant should be able produce an acceptable dissertation and proposal as well as a term paper for those who take that option.

Course Objectives:

This Course is designed to develop the research competencies of participants in planning research studies, critiquing scholarly works, writing proposals, developing study instruments, making presentations and defending proposals and dissertations.

Learning Outcomes:

At the end of the Module, participants will have the ability to:

1. Effectively critique scholarly work;

2. Ably write acceptable research proposals in education;
3. Effectively engage in scientific debates; and
4. Effectively present and defend academic work.

Mode of Delivery:

The seminars will be taught through the use of adult learning methods that will include lectures, group presentations, Case studies and practical sessions. Individual participants will practically work through their research cases and make choices on different aspects of their research agenda. Presentations will be made in class and feedback given to specific participants. These will be conducted within the context of the third, fourth and fifth workshops.

Assessment:

- Assessment will be based on deliverables and continuous assessments.
- The first year of study will have two semesters of course work and the second year will have two semesters of coursework and dissertation undertaken.
- To qualify for the award of the degree of Master of Information Technology a candidate is required to obtain a minimum of 54 credit units for courses passed including all the compulsory courses; and the Master's Dissertation within a period stipulated by the University, usually not exceeding five (5) years from the date of registration.

Dissertation

Students are required to demonstrate their ability to independently formulate a detailed dissertation proposal, as well as develop and demonstrate their dissertation thoroughly.

When the Dissertation is Done

- A candidate shall be allowed to formally start on the dissertation after the second semester of first year
- A candidate shall submit a dissertation proposal as the main output of the module Research Methods.
- The candidate shall execute the dissertation during second year (the third and fourth semesters) as they continue doing their other modules.
- The candidate shall submit a dissertation report by the end of the second semester of the second year.

Passing of a Dissertation

To pass the Dissertation, the candidate shall satisfy the Internal Examiner, External Examiner, and Viva Voce Committee independently.

External Examination of the dissertation

The dissertation shall be subjected to a rigorous review process that shall involve at least one external reviewer. After a positive review, the student shall have to publicly defend the dissertation as part of partial fulfilment for the award of the degree.

Revised Dissertation

A candidate, who fails to satisfy the examiners, shall re-submit a Revised Dissertation in accordance with the standing University guidelines for the dissertation.

TM 601: Dissertation

Credit Units: 5 Contact

Hours: 75

Course Description:

This course helps the student to undertake independent research, with the guidance of an experienced researcher like a supervisor. The student and supervisor identify a researchable topic, its scope, methodology and implementation. The student conducts the research and writes a dissertation.

Aim:

The aims of the course are to:

- Build research skills.
- Generate a new understanding or solution to an existing situation.
- Develop a solution for identified existing situation / challenge.

Learning Outcomes:

On completion of course, the student will be able to

- Conduct independent research.
- Propose a solution to an existing situation / challenge.
- Demonstrate the solution for an existing situation / challenge

Detailed Course Outline:

- Practicals in topic of specialization 100 hours
- Practical report writing 50 hours

Mode of Delivery:

Practicals

Course Assessment:

The Dissertation report is assessed at the end of the Second year, second semester. Panel presentation (40%) Dissertation examination (60%)

References

1. Miles T. Bryant, *The Portable Dissertation Advisor*: Corwin Press, 2003.
2. C. M. Roberts, *The Dissertation Journey: A Practical and Comprehensive Guide to Planning, Writing, and Defending Your Dissertation*, Corwin Press, 2010.
3. J. D. Cone, *Dissertations and Theses from Start to Finish: Psychology and Related Fields*, American Psychological Association, 2006.