

**REGULATIONS AND SYLLABUS FOR THE  
MASTER OF SCIENCE DEGREE IN COMPUTER  
SYSTEMS**

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AND TECHNOLOGY**

**INSTITUTE OF COMPUTER SCIENCE AND  
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**DEPARTMENT OF COMPUTING**

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## **1.0 INTRODUCTION**

Computer systems have become a way of life in modern day activities. Professionals in diverse fields are increasingly adopting the use of ICT to enhance productivity and effectiveness in their organizations to meet the challenges of digital age.

M.Sc. in Computer Systems is designed to meet this special need in the society. The course equips professionals with current and relevant technological skills in design, implementation and management of information systems.

## **2.0 TARGET GROUPS**

The course targets graduates and professionals from the education sector, civil service, business enterprises, private organizations etc

## **3.0 PROGRAMME OBJECTIVES**

The objectives of the programme are:

- a) To bridge the gap in adoption and use of computer systems in the society
- b) To enable professionals embrace current and emerging technologies in information systems
- c) Promote use of information system tools towards realization of a knowledge based society

## **4.0 PROGRAMME LEARNING OUTCOMES**

The learning outcomes of the programme are:

- a) Model and implement information systems solutions to real world problems
- b) Apply the acquired computer knowledge and skills to improve productivity and effectiveness in organizations
- c) To effectively perform as information systems analysts, system auditors, network and database administrators, information systems project managers and general IT practitioners

## **5.0 ENTRY REQUIREMENTS**

5.1 The common regulations for the Masters degree in the University shall apply.

5.2 The common regulations for the Masters degree at the Institute of Computer Science and Information technology (ICSIT) shall apply.

5.3 The minimum requirements for eligibility into the Master of Science in computer Systems are:

- a) Holders of a Bachelor degree of at least Upper Second Class Honours from a recognized University cognized University.

- b) Holders of a Bachelor degree of at least Lower Second Class Honours from a recognized University with at least three years experience
- c) Holders of a Bachelor a degree with a Pass and working experience of at least five years.
- d) Any other qualification from an institution recognized by senate and equivalent to (a) and (b) above.

## **6.0 PROGRAMME STRUCTURE AND DURATION**

6.1 The programme shall run for a minimum of two academic years for full time students and three academic years for part-time students

6.2 For full time students the first academic year shall have two semesters. Each semester shall have six units. The second year shall be devoted to project leading to a thesis.

6.3 For part-time students the first and the second academic years shall be divided into three semesters, each semester shall have two units. The third year shall be devoted to project leading to a thesis.

6.4 A course unit shall be defined as 45 contact hours

6.5 A candidate shall take all the 12 course units and carry out a project to qualify for Masters in Computer Systems

6.5.1 A candidate may take the 12 units (without the project) and exit with a Postgraduate Diploma in Computer Systems

6.5.2 A candidate may take only the first 6 units and exit with a Postgraduate Certificate in Computer Systems

6.6 The first 6 units shall cover fundamentals of computer systems. The last six course units shall cover applications in computer systems.

6.7 Students must complete the fundamentals of Computer Systems before undertaking the applications of Computer Systems

6.8 The research project shall be equivalent to ten course units.

## **7.0 COURSE OUTLINE**

### **7.1 Course Units**

#### **7.1.1 Semester 1**

ICS 3201	Research Methodology in Information Systems
ICS 3202	Information Systems
ICS 3203	Web Engineering
ICS 3204	Database Systems
ICS 3205	Computer Networks and Distributed Systems
ICS 3206	Object Oriented Programming

### **7.1.2 Semester 2**

ICS 3207	Software Project Management
ICS 3208	Management Information Systems
ICS 3209	Web Applications and Development
ICS 3210	Information Systems Security and Audit
ICS 3211	Artificial Intelligence
ICS 3212	Distributed and Internet Databases

### **7.2 Thesis**

ICS 3213	Computer Systems Project
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## **8.0 EXAMINATION REGULATIONS**

8.1 All taught course units shall be examined at the end of the respective semesters of the Master of Science in Computer Systems programme.

8.2 A candidate for the degree shall satisfactorily complete such coursework and practical assignments as may be required by the scheme of study. Satisfactory completion of any such requirements shall be a condition of admission to the examination at the end of that semester of study.

8.3 A written examination for a course unit shall have a duration of three hours.

8.4 Each course unit or its equivalent shall be graded independently out of a maximum of 100 marks and the pass mark shall be 50%.

8.5 The complete assessment of a taught unit shall consist of course work (assignments, practicals and continuous assessment tests) and a compulsory written examination. The contribution towards the unit aggregate shall be 40% for course work and 60% for written examination.

8.6 During the first academic year, a full-time candidate who fails to satisfy the ICSIT Board of Examiners in not more than two (2) course units will be required to take a supplementary examination in each of the failed units.

8.6.1 During the second academic year, a part-time candidate who fails to satisfy the ICSIT Board of Examiners in not more than two (2) course units will be required to take a supplementary examination in each of the failed units.

8.7 A candidate shall be required to pass in all the taught course units before being allowed to undertake the research project leading to a Thesis.

8.8 The Thesis shall be graded independently out of a maximum of 100 marks and the pass mark shall be 50%.

8.9 The grading system of individual courses will be as follows:

A - 80% - 100%

B - 65% - <80%

C - 50% - <65%

Fail - <50%

8.10 A candidate who fails to satisfy the examiners in the Thesis may, on the recommendation of the ICSIT Board of Examiners and approval by Senate, be allowed to resubmit the Thesis, not more than twice, within a period of not more than two consecutive semesters.

8.11 A candidate who;

- i) Has failed any course or its equivalent after two attempts or
- ii) Has failed to take any prescribed examination without good cause or
- iii) Has failed more than two (2) course units in the first academic year for full-time candidates or two course units (2) in the second academic year for part-time candidates or
- iv) Fails to complete the programme within four academic years for full-time students, or within six academic years for part-time students or
- v) Fails on second re-submission of the Thesis,

Shall, on the recommendation of the ICSIT Board of Examiners and approval by Senate, be discontinued from the programme.

8.12 A pass obtained in a supplementary examination or its equivalent shall be recorded as 50%.

## **9.0 DEGREE AWARD**

The final degree awarded shall be Master of Science in Computer Systems.

