

Kabale University

Master of Science in Computer Science

Programme Name: Master of Science in Computer Science

Programme Code: MCS

Duration: The Master of Computer Science (MCS) program is for a minimum of two (2) academic years

and a maximum of four (4) academic years. Whereby each academic year will comprise of two (2) semesters.

Study Time: Fulltime/Weekend

The programme shall be available for both day, evening and weekend sessions. After completing the first year of study, students shall be allowed to choose options for plan A or plan B.

Plan A Option: A student doing plan A shall study only two semesters of the first year and spend the entire second year doing research. The output of this research shall be at least one paper submitted for publication in a peer-reviewed journal and a dissertation.

Plan B Option: A student doing plan B shall study for the first three semesters of the programme and spend the entire fourth semester doing a project. The output of this project shall be a project report. Like a dissertation, a project report shall conform to the standard guidelines and regulations of the University's postgraduate Committee

Intake: August

Faculty: Faculty of Computing, Library and Information Science

Programme Description

Computing science is a rapidly changing and increasingly diverse academic discipline. Relevant issues for research concerning the teaching and learning of different programs of this discipline are even more diverse. This also applies to the methodologies needed to tackle questions within the computing discipline and such is the pillar to counteract the current increasing trend of graduate unemployment. This program is designed to train Computer Scientists, managers, students, teachers and professionals with relevant knowledge, skills and competencies that can encourage and support critical thinking among learners to help in this fourth industrial revolution since Technology is part of our future. The courses therein like research, outreach programs, management and development education programs are all intended to support this cause and also position the products in the competitive global economy and have skills needed to answer questions brought by the digital age. The Kabale University strategic plan 2020 – 2024 theme focuses on building on the Successes and addressing the weaknesses to grow a robust Public

University in Uganda. In this regard, the FoCLIS seeks to respond to the various calls of its alumnae and the community in the Western Kigezi region.

Entry Requirements:

The following are the minimum entry requirements to the MCS program:

- a) Holder of a minimum of second class honors undergraduate degree that has content rich in computer science or software engineering or mathematics;
- b) A Postgraduate Diploma in Computer Science with a relevant Bachelor's degree in computing or related field.

Tuition/ Sem East African

UGX 1,500,000

Tuition/Sem Non East African

USD 730

Programme Structure:

	YEAR 1 : SEMESTRE 1				
Course Code	Name of Course	LH	PH	CH	CU
MCS7101	Big Data Analytics	30	60	60	4
MCS7102	Advanced Object Oriented Programming	30	60	60	4
MCS7103	Advanced Database Design and Management	30	60	60	4
MCS7104	Information Technology Project Management	45	30	60	4
MCS7105	Research Methods in Computing	30	60	60	4
	Semester Credit Unit				20
	YEAR 1 : SEMESTRE 2				
MCS7201	Computer Application in Research	30	60	60	4
MCS7202	Scholarly Writing and Publishing Skills	45	30	60	4
MCS7203	Advanced Data Structures and Algorithms	30	60	60	4
Elective course(Choose any Two)					
MCS7204	Simulation And Modelling	30	60	60	4
MCS7205	Integrative Programming And Technologies	30	60	60	4
MCS7206	Cloud computing and Web Security	30	30	60	4

	Semester Credit Unit				20
	YEAR TWO: Plan A Option				
MCS8201	Dissertation	0	180	90	6
Total Credit Units					46
	YEAR TWO: Plan B Option				
	YEAR 2 : SEMESTRE 1				
MCS8101	Mobile Software And Content Development	30	60	60	4
MCS8102	Advanced Artificial Intelligence	45	30	60	4
MCS8103	Software Engineering	30	60	60	4
Elective course(Choose any Two)					
MCS8104	Information Security Management	45	30	60	4
MCS8105	Mobile And Wireless Networks	45	30	60	4
MCS8106	Advanced Systems Analysis and Modelling	45	30	60	4
	Semester Credit Unit				20
	YEAR 2 : SEMESTRE 2				
MCS8202	Project Report	0	180	90	6
Total Credit Unit					66

Note: CH=Contact Hours; CU=Credit Unit; PH=Practical Hours; LH=Lecturer Hours

Career opportunities/ Destinations:

The MCS seeks to prepare students for careers as postsecondary instructors, corporate researchers, technology specialists, chief information officers, information technology strategists, chief technology officers, higher education faculty member or administrators, information technology consultants, entrepreneurs and technical managers or directors. This implies that once this program is started will not only impart knowledge and skills to its candidates but also help to boost the human capacity development of the IT sector in the region.

Target Audience:

The MCS program targets computing professionals, mid-career and senior personnel are working in Information Technology Sector both in government and in Civil Society Organizations. This curriculum provides an opportunity for both full time and part-time staff members in the department to upgrade their qualifications.

The filled template should be sent to communications@kab.ac.ug.