

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

The Bachelor of Science in Information Technology is a three-year full-time program and one of the four programs offered in the Department of Computer Science and Information Systems (CS & IS). The program is organized on a semester basis, with two semesters in any one academic year. At the end of the second year, during the long break, students are expected to take an industrial/internship training exercise, a time when they are supposed to be exposed to real-life experience and hands-on practice. The maximum period for the completion of the program is 4 years; thereafter, the student is requested to leave the University. The curriculum has emphasized content delivery through student-centered learning methods. Even though they require limited numbers of students, these methods have been proven to promote student learning and academic achievement, as well as enhance students' satisfaction with their learning experience.

Program Objectives

The program will enable learners to:

1. Demonstrate skills of systems, application management, and maintenance, and perform procedures on the computer system.
2. Demonstrate knowledge in configuring computer networks and remote access to network resources.
3. Develop and deploy software applications supporting multiple technologies and architectures
4. Identify and prevent various hazards and timing problems in a digital design
5. General understanding of major concepts and approaches in knowledge representation, planning, learning, robotics and other AI areas.

Admission Requirements

The general Admission requirements shall be decided and revised periodically by the Senate and made available by the office of the Deputy Vice Chancellor (DVC). The admission criteria of the BSc. IT shall consist of the following:

- i) **Admission by Direct Entry:** Admission to the first year of the program will require a student to have sat the Uganda Certificate of Education (UCE) and passed with at least a credit in mathematics or English. Uganda Advanced Level Certificate of Education (UACE) with at least two principal passes, obtained in the same sitting.
- ii) **Mature Entry:** A person who holds a diploma in Computer Science or its equivalent in STEM-related programs from a higher institution of learning recognized by Uganda Martyrs University (UMU).

Program Structure

Year 1: Semester 1				
Code	Course Name	Type	CH	CU
BSIT 61101	Fundamentals of Information Technology	Core	60	4
BSIT 61102	Web Development Technologies	Core	60	4
BSIT 61103	Computer Systems Architecture & Logic	Core	60	4
BSIT 61104	Principals of Programming	Core	45	3
BSIT 61105	Fundamentals of Networking	Core	45	3
MTC 1102	Computational Mathematics	Core	45	3

ENG 1101	English Language Grammar	Core	45	3
	Total CUs			24
Year 1: Semester 2				
Code	Course Name	Type	CH	CU
BSIT 61201	Systems Analysis and Design	Core	60	4
BSIT 61202	Object Oriented Programming	Core	60	4
BSIT 61203	Database Management Systems	Core	60	4
BSIT 61204	Computational Statistics	Core	45	3
BSIT 61205	Introduction to Operating Systems	Core	45	3
PIE 1202	Introduction to Ethics	Core	45	3
	Total CUs			21
	Recess Term 1			
BSIT61209	CISCO: Audited Course	Audited		3
BSIT61210	Introduction to Graphics design	Audited		3
BSIT61211	Geoinformatics	Audited		3
Year 2: Semester 1				
Code	Course Name	Type	CH	CU
BSIT 62101	Programming Data Structures and Algorithms	Core	60	4
BSIT 62103	Data Communications and Networks	Core	60	4
BSIT 62102	Information and Cyber Security	Core	60	4
BSIT 62104	Marketing in the IT sector	Core	45	3
LIT 2101	Literature and Composition	Core	45	3
COS 2101	Communication Skills	Core	45	3
	Total CUs			29
Year 2: Semester 2				
BSIT 62201	User Interface Design and Development	Core	60	4
BSIT 62202	Web-Based Systems Programming	Core	60	4
BSIT 62203	Database Programming	Core	60	4
BSIT 62204	Research Methods in IT	Core	45	3
BSIT 62205	Mobile Computing and Networks	Core	60	4
PEF 2201	Ethics in Focus	Core	45	3

BSIT 62206	Systems Administration	Core	45	3
	Total CUs			25
	Recess Term 2			
BSIT 62207	Industrial Training	Core	60	5
Year 3: Semester 1				
Code	Course Name	Type	CH	CU
BSIT 63101	Data Mining and Business Intelligence	Core	60	4
BSIT 63102	Electronic Commerce	Core	60	4
BSIT 63103	Information Systems Project Management	Core	60	4
BEN 3101	Business English	Core	45	3
	Elective (Select one)	Core		
BSIT 63104	Financial Management in IT	Elective	60	4
BSIT 63105	Emerging Trends in IT	Elective	60	4
	Total CU			23
Year 3: Semester 2				
Code	Course Name	Type	CH	CU
BSIT 63201	Computer Graphics and Animation	Core	60	4
BSIT 63202	Software Engineering	Core	60	4
BSIT 63203	Entrepreneurship	Core	45	3
BSIT 63204	Science, Technology and Ethics	Core	60	4
BSIT 63205	Research Project	Core	60	4
	Total CUs			19
	Programme Total CU			147