



# Bachelor of Science in **Information Systems & Technology**

USIU-Africa is accredited in Kenya by the Commission for University Education (CUE) & the United States of America by WASC Senior College and University Commission respectively.

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**United States  
International  
University-Africa**

Education to take you places

## PROGRAM DESCRIPTION

The Bachelor of Science in Information Systems & Technology program delivers a blend of technical specialties alongside core business concepts, which are increasingly useful in the global interconnected knowledge-based economy.

## LEARNING OUTCOMES

Upon successful completion of the program, students will be able to:

1. Design and develop IT solutions to address business and organizational challenges.
2. Apply cybersecurity and data management practices to ensure secure data storage, retrieval, and protection.
3. Utilize emerging technologies such as AI, cloud computing, and data analytics to enhance business efficiency.
4. Demonstrate IT project management skills by planning, executing, and managing IT projects effectively.
5. Analyze and optimize IT infrastructure, including networks, databases, and enterprise systems.

# DEGREE REQUIREMENTS

150 UNITS

## GENERAL EDUCATION

39 UNITS

### SIGNATURE COURSES

15 UNITS

#### STRATEGIES FOR UNIVERSITY SUCCESS

3 UNITS

SUS 1010 Strategies for University Success

#### RESEARCH METHODS

3 UNITS

GRM 2000 Introduction to Research Methods

#### COMMUNITY SERVICE OR COMMUNITY PROJECT

3 UNITS

CMS 3700 Community Service

#### THE SENIOR EXPERIENCE

3 UNITS

SEN 4800 Integrated Senior Seminar

#### FUNDAMENTALS OF INFORMATION LITERACY

3 UNITS

FIL 1010 Fundamentals of Information Literacy

## LANGUAGE STUDIES

12 UNITS

### ENGLISH LANGUAGE

6 UNITS

ENG 1106 Composition I (WI)

ENG 2206 Composition II (WI)

### FOREIGN LANGUAGE

6 UNITS

Students must have credit for a foreign language or must take a two-course foreign language sequence of one language.

USIU-Africa offers courses in Arabic (ARB1000), French (FRN1000), Japanese (JPN1000), Spanish (SPN1000), Swahili (SWA1000), Chinese (CHI1000) and Kenya Sign Language (KSL1000).

## DISCIPLINARY GENERAL EDUCATION ELECTIVES

6 UNITS

IST 1020 Introduction to Information Systems

MTH 1109 College Algebra

## SCHOOL-BASED GENERAL EDUCATION ELECTIVES

9 UNITS

Students are required to pick 1 upper-level elective from either Chandaria School of Business or School of Humanities and Social Sciences.

## CHANDARIA SCHOOL OF BUSINESS

### LOWER LEVEL ELECTIVES

BUS 1010 Introduction to Business Organizations (Mandatory)

## UPPER LEVEL ELECTIVES

MGT 4030	Cross Cultural Management
BUS 4090	Strategic Management

## SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

### UPPER LEVEL ELECTIVES

GEO 3000	Geography and the Environment
PSY 3135	Psychology of Communication
SOC 3301	Social Problems
PHL 3310	Ethics and Value Theory
SOC 3500	Social Conflict & Resolution
LIT 4815	Oral Literature

## CORE COURSES

**111 UNITS**

### LOWER LEVEL CORE COURSES

**24 UNITS**

APT 1040	Introduction to Web Applications & Design	3 Units
APT 2055	Hardware and Software Practicum	3 Units
IST 2010	Computer Organization & Assembly Programming	3 Units
APT 1030	Fundamentals of Programming Languages	3 Units
IST 1025	Introduction to Programming	3 Units
IST 2045	Introduction to Computer Networks	3 Units
IST 2060	Data Structures and Algorithms	3 Units
MTH 2010	Probability & Statistics	3 Units

### UPPER LEVEL CORE COURSES

**72 UNITS**

APT 3050	Introduction to Project Management	3 Units
APT 3065	Mid-Term Project	3 Units
APT 3080	Management Information Systems	3 Units
BUS 3010	Business Law	3 Units
BUS 3020	Production and Operations Management	3 Units
BUS 4070	Business Values and Ethics	3 Units
MGT 3010	Overview of Management Practice	3 Units
IST 3005	Application of Social Media for Business	3 Units
IST 3015	Business Data Analytics	3 Units
IST 3020	Principles of Operating Systems	3 Units
IST 3040	Digital Lab	3 Units
IST 3050	Introduction to Security Systems	3 Units
IST 4020	Systems Analysis and Design	3 Units
IST 4030	Database Management Systems	3 Units
IST 4035	Advanced Web Design and Application	3 Units
IST 4040	Decision Analysis	3 Units
IST 4060	Telecommunications and Networks	3 Units
IST 4070	Object-Oriented Programming	3 Units
IST 4072	Object-Oriented Analysis and Design	3 Units
IST 4075	Mobile Applications Development	3 Units
IST 4078	IT Innovation and Entrepreneurship	3 Units



IST	4900	Information Technology Project	3 Units
IST	4910	Information Systems Internship	3 Units
MKT	3010	Principles of Marketing	3 Units

**CONCENTRATION COURSES**

**15 UNITS**

Information Systems and Technology majors should take either Applications, Networking or Forensic Information Technology and Cybercrime as their concentration or area of specialization.

**APPLICATIONS**

**15 UNITS**

APP	4015	Software Engineering	3 Units
APP	4025	Design and Development of Cloud Applications	3 Units
APP	4035	Web Application Development Frameworks	3 Units
APP	4070	System Programming	3 Units
APP	4080	Collaborative (Team Work in) Software Development	3 Units

**NETWORKING**

**15 UNITS**

DST	4010	Distributed Systems	3 Units
NET	4020	Network Management and Security	3 Units
NET	4030	Internet Architecture and Protocols	3 Units
APP	4035	Web Application Development Frameworks	3 Units
NET	4050	Sensor Networks and Internet of Things	3 Units

**FORENSIC INFORMATION AND CYBERCRIME**

**15 UNITS**

FIC	4010	Information System Security	3 Units
FIC	4020	Forensic Accounting and Fraud Investigation	3 Units
FIC	4030	Information Systems Audit	3 Units
FIC	4040	Information Technology and Cybercrime	3 Units
FIC	4050	Computer Forensics and Investigation	3 Units

# CAREER OPPORTUNITIES

A Bachelor of Science in Information Systems & Technology opens up a wide range of career opportunities:

1. Network Administrator
2. Information Systems Manager
3. Information Systems Developer
4. Mobile Applications Developer
5. Systems Analyst
6. Information Systems Project Manager
7. IT Consultant
8. Systems Administrator
9. Web Applications Developer
10. Information Systems Auditor

# ADMISSION REQUIREMENT

Kenya Certificate of Secondary Education (KCSE) or its equivalent with a minimum aggregate of C+ (Plus).

# CONTACTS

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