



American
Open University
Nigeria

UNDERGRADUATE PROGRAM | COLLEGE OF TECHNOLOGY

Bachelor of Science in Information Technology





Program Info

The Bachelor of Science in Information Technology prepares students to build, manage, and innovate the core technical infrastructure that powers modern organizations. This program focuses on systems, networking, and cloud infrastructure, with a deep, practical specialization in how to deploy and manage intelligent systems. This program focuses on the practical implementation of AI. Students learn to build and manage the cloud infrastructure, data pipelines, and systems required to deploy and scale machine learning models in real-world environments.

4 Years

Duration

BSc Degree

Credential

Hybrid

Delivery

AI-Ready

Specialization

SPECIALIZATION FOCUS

AI/ML Deployment & Cloud Infrastructure | MLOps & DevOps · Enterprise
Systems Architecture | AWS & Azure Cloud Platforms





Program Objectives

The Bachelor of Science in Information Technology aims to:



Build expertise in managing enterprise IT systems, including networks, servers, and cloud platforms.



Develop the technical skills required to deploy, monitor, and maintain AI and machine learning applications.



Provide a strong foundation in IT service management and infrastructure automation.



Prepare graduates to be the technical architects of intelligent systems.

Expected Program-Level Outcomes

EDUCATE

Students will understand the principles of IT infrastructure, cloud computing, and the lifecycle of machine learning models.

DEVELOP

Students will be able to design and manage secure and scalable IT systems and deploy AI applications on cloud platforms like AWS or Azure.

GROW

Students will learn to automate IT operations (DevOps/MLOps) and manage the unique infrastructure demands of AI workloads.

EMPOWER

Students will be prepared to lead the technical implementation of AI strategies, ensuring systems are reliable, scalable, and efficient.



Program Pathway for B.Sc. Information Technology Advance Stage 1

Session	Course Code	Course Title	Units	Duration
Fall (2 Sections) 12 Credit units				
Section 1 (6 Credits)	AGC 200	Foundations of Academic Writing	3	8 weeks
	AGT 200	Information Systems Design Fundamentals	3	8 weeks
Section 2 (6 Credits)	DTS 201	Introduction to Data Science	3	8 weeks
	ATC 202	Foundations of AI Deployment (Claude AI)	3	8 weeks
Break				
Spring (2 Sections) 12 Credit units				
Section 1 (6 Credits)	DTS 304	Data Management - Microsoft Dataverse	3	8 weeks
	CYB 201	Enterprise Resource Planning	3	8 weeks
Section 2 (6 Credits)	AGT 311	Data Analytics and Business Intelligence (Google)	3	8 weeks
		Technology Integration	3	8 weeks
Break				
Summer (1 Section) 6 Credit units				
Section 1 (6 Credits)		Open Source	3	8 weeks
	AGT 421	IT Project Management	3	8 weeks
Break				
Fall (2 Section) 12 Credit Units				
Section 1 (6 Credits)	CYB 201	Introduction to Cybersecurity and Strategy	3	8 weeks
	AGC 300	Information Technology Research Methods	3	8 weeks
Section 2 (6 Credits)	CYB 303	Cybersecurity Risk Analysis, Challenges, and Mitigation	3	8 weeks
	AGT 411	Cloud Infrastructure and Databases	3	8 weeks
Break				



Program Pathway for B.Sc. Information Technology Advance Stage 1

Session	Course Code	Course Title	Units	Duration
Spring(2 Section) 12 Credit Units				
Section 1 (6 Credits)	AGT 412	IT Automation	3	8 weeks
	AGT 421	Information Security and Assurance	3	8 weeks
Section 2 (6 Credits)	AGT 412	IT Automation with Python	3	8 weeks
	IFT 497	IT Capstone Project I	3	8 weeks
Break				
Summer (1 Section) 6 Credit Units				
Section 1 (6 Credits)	AGT 414	AI Agents Development	3	8 weeks
	IFT 498	IT Capstone Project II	3	8 weeks
		TOTAL UNITS	60	



Program Pathway for B.Sc. Information Technology Advance Stage 2

Session	Course Code	Course Title	Units	Duration
Fall (2 Sections) 12 Credit units				
Section 1 (6 Credits)	AGC 200	Foundations of Academic Writing	3	8 weeks
	ATC 200	Information Systems Design Fundamentals	3	8 weeks
Section 2 (6 Credits)	ATC 421	Data Analytics and Business Intelligence	3	8 weeks
	AGC 300	Information Technology Research Methods	3	8 weeks
Break				
Spring (2 Sections) 12 Credit units				
Section 1 (6 Credits)	ATC 410	Information Security and Assurance	3	8 weeks
	ATC 405	Cloud Infrastructure and Databases	3	8 weeks
Section 2 (6 Credits)	ATC 407	IT Automation with Python I	3	8 weeks
	ATC 424	AI Agents Development	3	8 weeks
Break				
Fall (2 Sections) 12 Credit Units				
Section 1 (6 Credits)	ATC 407	IT Automation with Python II	3	8 weeks
	IFT 497	IT Capstone Project IIT Capstone Project I	3	8 weeks
Section 2 (6 Credits)	IFT 498	IT Capstone Project II	3	8 weeks
		Total	33	



What You Will Learn

Students will build a comprehensive portfolio of skills, moving from foundational theory to specialized, real-world application.

1.

IT Infrastructure and Systems:

Gain proficiency in computer networking, cloud computing (AWS, Azure), database management, and operating systems (Linux, Windows Server).

2.

Cloud Architecture and Automation:

Master the principles of designing scalable, secure, and resilient cloud infrastructure, and learn to automate operations using Infrastructure as Code (IaC).

3.

AI/ML Deployment and Operations (MLOps):

Learn the specific tools and practices for deploying, monitoring, and managing machine learning models in production environments.

4.

IT Strategy and Service Management:

Understand how to manage complex technology projects, align IT infrastructure with business goals, and implement IT service management (ITSM) best practices.





Who You Will Become

AI/ML Engineers

who specialize in the operational side of AI, building the infrastructure to run intelligent systems

Cloud AI Specialists

who architect and manage scalable solutions for AI workloads on platforms like AWS, Azure, or Google Cloud.

DevOps/MLOps Engineers

who build the automated pipelines for continuous integration, delivery, and deployment of software and machine learning models.

IT Infrastructure Architects

who design the next generation of intelligent, cloud-based enterprise systems.

EMPLOYMENT LANDSCAPE

Where You Will Work

Industries:

Cloud Computing, Artificial Intelligence, Enterprise IT, Technology Consulting.

Certifications:

AWS Certified Solutions Architect, Microsoft Certified: Azure AI Engineer Associate, CompTIA Cloud+, HashiCorp Certified: Terraform Associate.

Career Trajectory:

AI Engineer, MLOps Engineer, Cloud Engineer, DevOps Engineer, IT Infrastructure Architect.



Ready to Build the Future?

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