



American
Open University
Nigeria

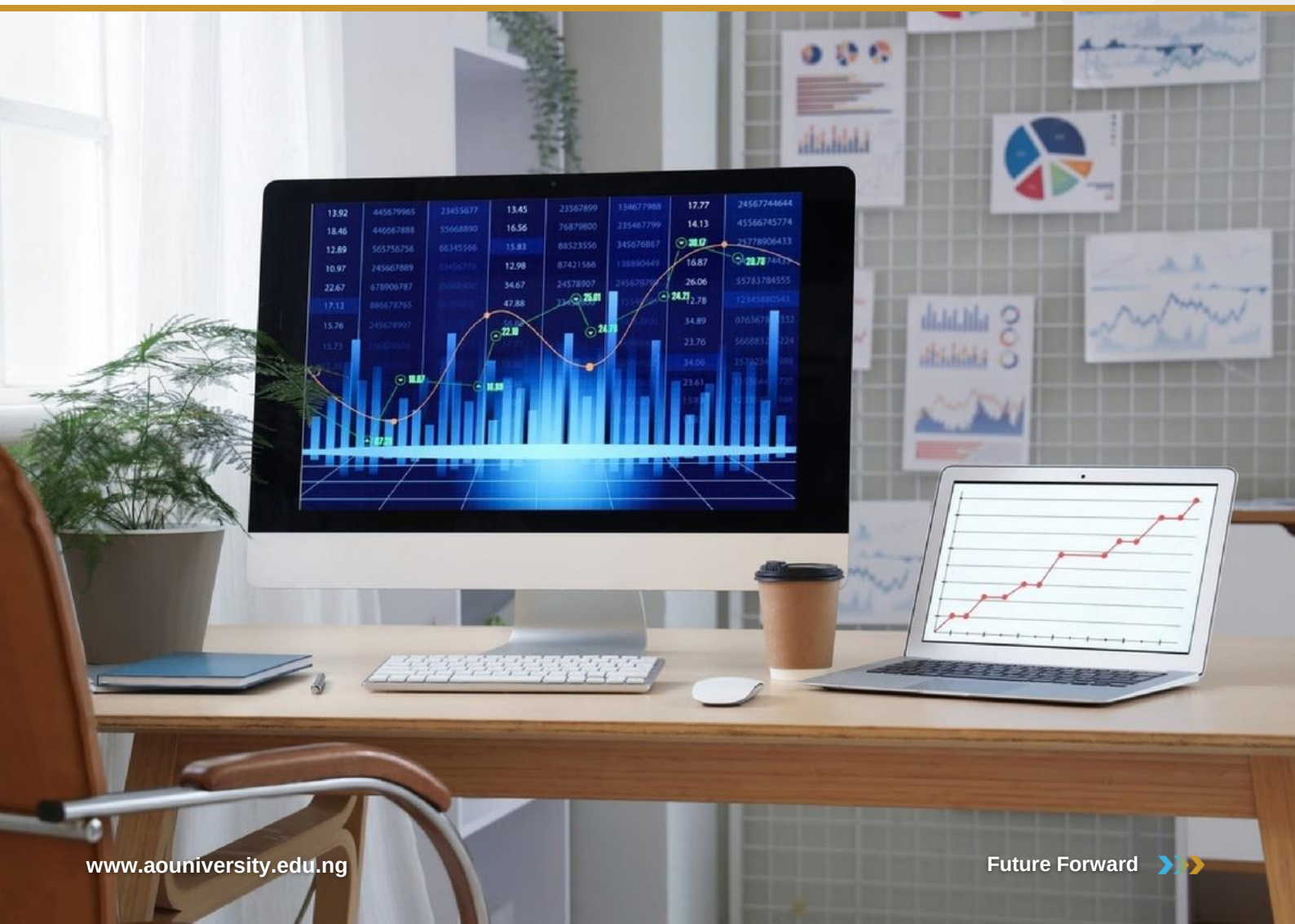


Undergraduate Program

College of Technology

Bachelor of Science in Data Science

Transforming data into actionable intelligence: statistics, machine learning, and the engineering that carries models into production.



Data into Intelligence

Educating the data scientists and machine learning engineers who turn data into decisions.



“

All models are wrong, but some are useful.

George E. P. Box statistician, 1979

The Bachelor of Science in Data Science is a deep, technical program focused on transforming vast amounts of data into predictive insights and actionable intelligence. This program equips students with a rigorous foundation in statistics, mathematics, and computer science, preparing them to build and deploy sophisticated machine learning models and data-driven solutions to solve complex problems. Students will engage in advanced projects in areas like Natural Language Processing (NLP), Computer Vision, and Predictive Analytics.

Specialization focus



Machine Learning



Natural Language Processing



Computer Vision



Predictive Analytics

● Undergraduate program of the College of Technology, American Open University Nigeria (A-Global).



Program at a Glance

Four years. One degree. A specialization built for the people who turn data into decisions.



Duration



Credential



Delivery



Specialization

Your journey through the program



100 Level
22 units

Sciences and computing foundations



200 Level
28 units

Mathematics, R, statistical computing, and SIWES I



300 Level
21 units

Big data, probability, and SIWES II



400 Level
12 units

Visualization, project management, and Final Year Project I and II

+ 60

credit units of A-Global electives run alongside the core: 20 applied courses, 3 units each, delivered in 8-week blocks.

Program objectives

The Bachelor of Science in Data Science aims to:



Build deep expertise in statistical analysis, machine learning algorithms, and data modeling.



Develop advanced programming skills in languages like Python and R, and proficiency with data science libraries.



Provide experience with the complete data science lifecycle, from data collection and cleaning to model deployment.



Foster a strong ethical foundation for the responsible use of data and AI.



What You Will Learn

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

Specialized
application

4



Data Engineering and MLOps

Understand the complete data science lifecycle, from data wrangling and visualization to building data pipelines and deploying models into production.

3



Data Science Programming

Become proficient in Python and R, and master essential libraries and frameworks such as Pandas, NumPy, Scikit-learn, TensorFlow, and PyTorch.

2



Machine Learning and AI

Develop deep expertise in supervised, unsupervised, and reinforcement learning algorithms, including regression, classification, clustering, and neural networks.

1



Statistical and Mathematical Modeling

Master the fundamentals of statistics, probability, linear algebra, and calculus that form the bedrock of machine learning.

Foundational
theory

Read the stack from the base up: the mathematics first, then the learning algorithms built on it, then the programming that puts them to work, and finally the engineering that carries models into production.



Expected Program-Level Outcomes

Every A-Global program is designed through the EDGE Instructional Framework, so its outcomes are stated the way the framework thinks: what you learn, who you become, where you apply it, and how you lead.



The EDGE Framework

A learner-centric model that guides the design of every program we offer, emphasizing individual growth, empowerment, and career advancement.

E Educate (The What)

Students will understand the mathematical and computational foundations of data science and machine learning.

D Develop (The Who)

Students will demonstrate the ability to build, train, and validate predictive models to solve real-world problems.

G Grow (The Where)

Students will learn to communicate complex technical findings to diverse audiences and work collaboratively on data-intensive projects.

E Empower (The How)

Students will be empowered to lead data science initiatives and drive innovation by uncovering hidden patterns and opportunities in data.

Every A-Global graduate is designed to be

Future-Ready

Equipped to adapt to technological change and thrive in the 21st-century global economy.

Career-Focused

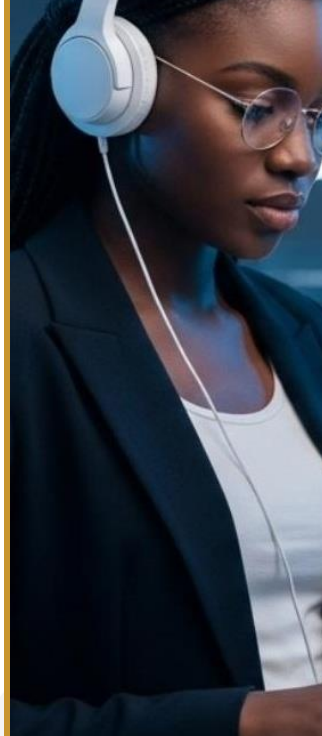
Prepared to apply their knowledge professionally and advance their careers with purpose and direction.

Skilled and Competent

Possessing the essential skills and professional competencies for effective performance and ethical leadership.

Empowered Changemakers

Ready to act as agents of positive change, equipped with the strategic tools and professional networks to lead and innovate.



Your Four-Year Pathway

The program pathway for the B.Sc. Data Science moves from the sciences and computing foundations of 100 Level through mathematics, statistical computing, and big data to the visualization work and applied projects of 400 Level. Every course below is part of the NUC-aligned core.

Credit units by level

100 Level		22
200 Level		28
300 Level		21
400 Level		12

Plus 60 units of A-Global electives (page 8)

100

100 Level

22 credit units

	GST 111	Communication in English	2
	MTH 101	Elementary Mathematics I	2
	PHY 101	General Physics I	2
	PHY 107	General Practical Physics I	1
	STA 111	Descriptive Statistics	3
	COS 101	Introduction to Computing Sciences	3
	GST 112	Nigerian Peoples and Culture	2
	MTH 102	Elementary Mathematics II	2
	PHY 102	General Physics II	2
	PHY 108	General Practical Physics II	1
	COS 102	Problem Solving	2

200

200 Level

28 credit units

	ENT 211	Entrepreneurship and Innovation	2
	MTH 201	Mathematical Methods I	2
	MTH 203	Sets, Logic and Algebra I	2
	MTH 209	Introduction to Numerical Analysis	2
	COS 201	Computer Programming I	3
	DTS 201	Introduction to Data Science	2
	DTS 211	Introduction to R Programming	2
	CSC 203	Discrete Structures	2
	GST 212	Philosophy, Logic and Human Existence	2
	COS 202	Computer Programming II	3
	DTS 204	Statistical Computing, Inference and Modeling	3
	DTS 299	SIWES I	3

 Work-integrated milestone (SIWES)

 2 credit units

300 and 400 Level

Big data, probability, visualization, and your final-year project

300

300 Level

21 credit units

CYB 201

Introduction to Cybersecurity and Strategy

2

GST 312

Peace and Conflict Resolution

2

ENT 312

Venture Creation

2

DTS 302

Big Data Computing

2

DTS 304

Data Management I

3

DTS 308

Ethics and Legal Issues in Data Science

2

DTS 316

Probability for Data Science

3

DTS 322

Data Science Innovation and Entrepreneurship

2

DTS 399

SIWES II

3

400

400 Level

12 credit units

COS 409

Research Methodology & Technical Report Writing

2

DTS 403

Data Visualization for Data-driven Decision Making

2

DTS 497

Final Year Project I

3

INS 401

Project Management

2

DTS 498

Final Year Project II

3

SIWES I and II

Two industrial work-experience placements (DTS 299 at 200 Level, DTS 399 at 300 Level) put you inside real organizations before you graduate.

Final Year Project I and II

DTS 497 and DTS 498 at 400 Level carry your learning into a substantial, portfolio-ready project.

“

Far better an approximate answer to the right question, which is often vague, than an exact answer to the wrong question, which can always be made precise.

John W. Tukey, The Future of Data Analysis, 1962



A-Global Electives

Twenty applied courses that put current tools in your hands: analytics, visualization, AI deployment, machine learning operations, cloud, and automation. Each elective carries 3 credit units and runs for 8 weeks.

20 courses

3 units each

60 total units

8 weeks each



Academic Foundations

2

AGC 200 Foundations of Academic Writing

AGC 300 Information Technology Research Methods

Enterprise Systems

5

ATC 200 Information Systems Design Fundamentals

ATC 401 Enterprise Resource Planning

ATC 402 Modern Technology Integration

ATC 403 Enterprise Applications with Open-Source Technologies

ATC 404 IT Project Management

Data Science and Analytics

4

ATC 420 Foundations of Data Science and Analytics

DTS 403 Data Visualization for Data-driven Decision Making

ATC 421 Data Analytics and Business Intelligence (Google)

ATC 406 Data Management: Microsoft Dataverse

AI and Machine Learning

3

ATC 202 Foundations of AI Deployment (Claude AI)

ATC 424 AI Agents Development

ATC 449 Machine Learning Ops & Deployment

Cloud, Automation and Security

4

ATC 405 Cloud Infrastructure and Databases

ATC 407 IT Automation with Python I

ATC 408 IT Automation with Python II

CYB 201 Introduction to Cybersecurity and Strategy

Capstone

2

DTS 497 Data Science Capstone Project I

DTS 498 Data Science Capstone Project II



How You Will Learn

Education should fit your life, not the other way around. Whether you prefer the immersive experience of our Global Campus, the convenience of a local City Center, or the flexibility of online study, A-Global meets you where you are.

The Hi-Flex learning model



Global Campus

The immersive on-campus experience in Ibadan.



City Center

The convenience of a local center close to home.



Online

The flexibility of study that fits around your life.

Three tiers of support, one team behind you



Course Instructor

Your primary support official for each course: delivers content, leads discussions, gives assignment feedback, and evaluates your performance.



Course Mentors

Credentialed, certified subject experts who add specialized guidance, answer in-depth questions, and facilitate peer-to-peer learning.



Industry Faculty and Coaches

Working professionals who connect your learning to real-world practice, job-readiness mindsets, networks, and potential internship placements.



Learner Support Team

Monitors your progress with meaningful weekly contact, in person or via phone, Teams, or Zoom, and escalates any concern for early intervention.

Where to find us



Global Campus, Ibadan

3 Oladosu Oladipo Close, Ashi Area, New Bodija, Ibadan, Oyo State



Metro Campus, Abeokuta

1 Muideen Agboke Street, Opposite Foodco Supermarket, Ita-Iyalode, Abeokuta, Ogun State



Ogbomoso Center

First Floor, Adekitan Building, Beside Ola Central Filling Station, High School Area, Ogbomoso, Oyo State



Ondo Town Center

1 Homaj Street, Itanla, Akure Road, Ondo Town, Ondo State

“ Humans are allergic to change. They love to say, ‘We’ve always done it this way.’ I try to fight that.

Grace Hopper, computer scientist and US Navy rear admiral, 1987



Who You Will Become

The scientists and engineers who turn raw data into predictive models, intelligent systems, and better decisions.



Data Scientists

who build predictive models to solve complex business, social, and scientific problems.



Machine Learning Engineers

who design and build the systems that run AI applications.



AI Specialists

who develop intelligent systems in areas like computer vision or natural language processing.



Quantitative Analysts

who apply data science to financial modeling and algorithmic trading.

Where you will work

Industries

Technology

FinTech

Healthcare

E-commerce

Consulting

Research

Certifications



TensorFlow Developer Certificate



AWS Certified Machine Learning (Specialty)



Google Professional Data Engineer

Career trajectory

Data Scientist

Machine Learning
Engineer

AI Engineer

Quantitative
Analyst

Data Architect

“AI is the new electricity.”

Andrew Ng, Stanford Graduate School of Business, 2017



Your Path to Admission

Three entry routes, one destination. Choose the track that matches where you are starting from.



Start *Begin. Build. Become.*

Fresh secondary school graduates, JUPEB, IJMB, and A-Levels.



Accelerate *Start. Advance. Pivot.*

Direct Entry (NCE, ND, and NID) and university transfers. Graduate faster: finish in 24 to 36 months depending on experience and previously earned credits.



Advance *Reposition. Reskill. Reinvent.*

For HND holders, third-class graduates, and chartered professionals transitioning into tech-driven fields. Admission by Direct Entry with Credit Transfer and Recognition of Prior Learning (RPL).

Key facts

Duration
4 years

Credential
B.Sc. Degree

Delivery
Hybrid, Hi-Flex

College
College of Technology

Entry requirements

- Five O'Level credits including English Language and Mathematics.
 - Subject credits relevant to the chosen program.
 - UTME or Direct Entry qualification where applicable.
 - A working device and a reliable internet connection.
- Students transitioning to a new program must provide their degree credentials.

Tuition and fees

Regular tuition for the B.Sc. Data Science program is ₦2,100,000 per academic session. Under the 2026/2027 Merit Scholarship, eligible students receive up to 70% off, reducing tuition to ₦630,000 (Start & Accelerate), ₦840,000 (Advance I), or ₦1,050,000 (Advance II) per session.





Ready to Build the Future?

Apply now and join a program designed for the next generation of data science leaders.

Apply now: www.aouniversity.edu.ng



Application QR code

An idea is a blueprint. Ambition is the engine. A degree is the launchpad.

A-Global

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Current students	support@aouniversity.edu.ng	Finance	financing@aouniversity.edu.ng

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Future Forward 