



Overview

The areas of **Big Data, Data science and Business Intelligence** are emerging as important drivers for economic development and growth. These areas include a wide range of skills from various different disciplines and there are several career and skills development routes available. This programme focuses on core skills relevant to developing Business Intelligence and Data Science applications in the cloud using the **Microsoft Azure** platform.



The first part of this programme lays a foundation of data analysis concepts that includes fundamentals of storing, retrieving and manipulating data from relational databases, and using analysis tools to extract insights from data in **MS Excel**.

The second part of the programme introduces students to cloud concepts and core Azure services, as well as the use of tools that form part of the **MS Azure platform** to deploy business intelligence and data science applications in the cloud. Students use Power BI to prepare, model, visualise and analyse data. Students also use Azure tools and techniques to set up machine learning applications, which will allow users to **train, evaluate, and deploy** models that solve business problems.



Features & Benefits

1. This certification path has been designed to provide the student with multiple certifications, both **locally** and **internationally** recognized by industry for maximum employability.
2. It incorporates the latest in **data analysis, business intelligence, machine learning and cloud technologies** to ensure market relevance on exit.
3. Get internationally certified to increase job readiness on **Excel 2016 Expert: Interpreting Data for Insights** (exam 77-728), **Microsoft Database Fundamentals** (exam 98-364), **Microsoft Azure Fundamentals** (exam AZ-900), **Analyzing Data with Microsoft Power BI** (exam: DA-100), and **Designing and Implementing a Data Science Solution on Azure** (exam DP-100). On successful completion of your international exams, you will be certified as an **Microsoft Office Specialist (MOS)**, a **Microsoft Technology Associate (MTA)** and **Microsoft Certified Associate (MCA)**.



4. Through our **myWay Hybrid Full Time Learning** method, classes can be attended **on campus, virtually or both**. This method gives each student the ultimate flexibility to combine on campus and virtual lecturers based on their individual preferences.



5. Through our **myWay learning** methodology, a unique and modern approach to blended learning we deliver our programmes via flexible study method options including class based sessions and blended learning for online student.
6. Get a free **Office 365 Education A1 license**, valid for the duration of your studies.



7. Job placement assistance through our industry network and online recruitment portal, exclusively available to **AIE graduates**. Visit www.recruitgraduates.co.za for more.



Articulation Options

The following programmes are highly complementary, and students and students could progress into the following dependent upon meeting the relevant entry requirements:

- Database Development and Admin using Oracle and MS Azure
- National Certificate: IT Systems Development
- Higher Certificate: Business Management, Entrepreneurship

Duration

Full Time, Hybrid Learning

- **10 months** (study 5 days/week, classes on selected days, 2 to 3 times per week in Hybrid Format giving students the flexibility to attend on campus or from home according to their preferences.)

Part-Time, Hybrid Learning

- **10 months** (online classes on selected days, once a week in Hybrid Format, 18:00 – 20:00. Additional sessions in Hybrid Format on some Saturdays give students the flexibility to attend on campus or from home according to their preferences.)
- Credits are obtained through a combination of live virtual sessions, pre-recorded video lectures and project-based tasks.

Online, Virtual Learning

- **10 Months** (online live class sessions, once a week, 18:00 - 20:00)
- Credits are obtained through a combination of live virtual sessions, pre-recorded video lectures and project-based tasks..

Mode of Delivery

- Full Time
- Part Time
- Online

Admission Requirements

- Grade 12 with Computer Science and/or Mathematics Literacy. OR
- FET Certificate: IT Technical Support, SAQA ID 78964, NQF4. OR
- Equivalent industry networking experience.

What you get

- Excel 2016 Expert: Interpreting Data for Insights (Microsoft Office Specialist)
- Database Fundamentals (Microsoft Technology Associate)
- Microsoft Azure Fundamentals (Microsoft Certified: Fundamentals)
- Analyzing Data with Microsoft Power BI (Microsoft Certified: Associate)
- Designing and Implementing a Data Science Solution on Azure (Microsoft Certified: Associate).

Curriculum

Term 1

Digital Literacy A

- Demonstrate knowledge, understand key terms and apply the principles of MS
- Demonstrate knowledge, understand key terms and apply the principles of MS Excel
- Demonstrate knowledge, understand key terms and apply the principles of MS Powerpoint

- **Intro to Data Science**
- **Data Science and Machine Learning**

Interpreting Data with MS Excel

- Create, manage, and distribute professional spreadsheets
- Create custom business templates
- Apply custom data formats and layouts
- Create advanced formulas

Term 2

Interpreting Data with MS Excel (Continue)

- Create advanced charts and tables

Database Fundamentals

- Describe the core concepts of relational databases.
- Create and manipulate database objects and data using Microsoft SQL Server.
- Explain the use of basic database administration tools.

Azure Fundamentals

- Describe cloud concepts
- Describe Core Azure Services
- Describe core solutions and management tools on Azure
- Describe general security and network security features
- Describe identity, governance, privacy, and compliance features
- Describe Azure cost management and Service Level Agreements

Term 3

Analyzing and Visualizing Data with Power BI

- Connect to data sources and perform data transformations and modeling.
- Visualize data using Microsoft Power BI Desktop.
- Configuring dashboards using the Power BI service
- Implement direct connectivity to Microsoft SQL Azure and SQL Server Analysis Services.

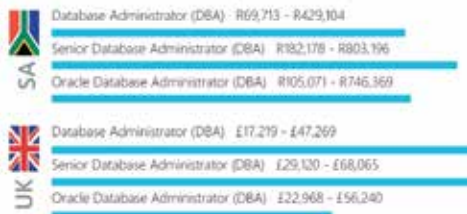
Term 4

Data science solutions on Azure

- Set up an Azure Machine Learning Workspace
- Run Experiments and Train Models
- Optimize and Manage Models
- Deploy and Consume Models

Salaries & Skills

SALARIES (ANNUAL)





Career Options

- Data Analyst
- Business Intelligence Developer
- Business Reporting
- Azure Data Science Developer

Study Kit

Your study kit is included in your fees and will contain:

- **Your Study Material:** All your necessary textbooks are included in your fees as smart e-books from our **Snapply Library** and can be accessed via any browser (via **myAIE portal**) or/and on any device such as a laptop, phone or tablet.
- **Free Unlimited WIFI** (On Campus only)

- Access to our **myAIE** student portal, resources and student support team via phone, email and tickets.

- **Orientation e-kit:** Student Card, Welcome Letter, Getting Started Guide.