



BUSINESS PROPOSAL

SHORT COURSES (ICT)

Bridging the University Gap and Building South Africa's Next
Generation of Professionals

PREPARED FOR APPLICANTS



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DATA SCIENCE PRACTITIONER

"THE ONLY WAY TO DO GREAT WORK IS TO LOVE WHAT YOU DO."

— STEVE JOBS

YDP SA PRESENTS



OCCUPATIONAL CERTIFICATE: DATA SCIENCE PRACTITIONER

SAQA QUAL ID: 118708 | NQF LEVEL 05

DATA SCIENCE PRACTITIONER





Course Description.

This comprehensive programme provides in-depth education and training to prepare learners to operate as a Data Science Practitioner. Learners will master the practice of collecting, transforming, and analysing data to solve business problems, and communicating results through powerful visualisations and reports. The curriculum covers the entire data lifecycle, from data collection and cleaning to statistical analysis and storytelling with data. The programme integrates Knowledge, Practical Skill, and Work Experience Modules as per the South African Qualifications Authority (SAQA) curriculum, culminating in preparedness for the external integrated summative assessment.

Value Proposition.

This programme is designed to address the critical global shortage of **data science professionals**. You will gain industry-relevant, **hands-on skills** in one of the world's fastest-growing fields, significantly enhancing your employability for roles such as **Junior Data Analyst**, **Data Miner**, and **Data Custodian**. The programme provides a formal and **nationally recognised qualification (NQF Level 5)**, combining theoretical knowledge with applied practical skills and **real-world work experience** to ensure you are **job-ready** upon completion.

Who Should Attend

This qualification is ideal for a diverse cohort of learners:

- **School Leavers & Graduates:** Individuals with an NQF Level 4 and Mathematics seeking to launch a career in the high-growth technology sector.
- **Career Transitioners:** Professionals from other fields with a quantitative background seeking to pivot into data science.
- **Incumbent IT/Business Staff:** Data handlers, business analysts, or IT technicians looking to formalise and validate their data skills with a national qualification.
- **Anyone in employment without formal recognition of their data analytics competencies** will find this course essential for career advancement.



Course Modules & Timeline

Programme Duration: 11 Months (Full Curriculum Delivery)

TERM 1: DATA SCIENCE FOUNDATIONS (Months 1-3)

Knowledge Modules:

- KM-01: Introduction to Data Science and Data Analysis (NQF L4, 6 Credits).
- KM-02: Logical Thinking and Basic Calculations: Refresher (NQF L4, 4 Credits).
- KM-03: Computers and Computing Systems (NQF L4, 4 Credits).
- KM-04: Computing Theory (NQF L4, 2 Credits).
- KM-09: Introduction to Governance, Legislation and Ethics (NQF L4, 3 Credits).
- KM-10: Fundamentals of Design Thinking and Innovation (NQF L4, 4 Credits).
- KM-11: 4IR and Future Skills (NQF L4, 1 Credit).

Practical Skill Modules:

- PM-01: Apply Logical Thinking and Maths Refresher (NQF L4, 3 Credits).
- PM-10: Collaborate Ethically and Effectively in the Workplace (NQF L5, 2 Credits)

Focus:

- Building a solid foundation in data concepts, computing, logic, ethics, and the principles of the 4th Industrial Revolution.

TERM 2: STATISTICS & PROGRAMMING FUNDAMENTALS (Months 4-6).

Knowledge Modules:

- KM-05: Basic Statistics for Data Analytics (NQF L4, 10 Credits).
- KM-06: Statistics Essentials for Data Analytics (NQF L5, 4 Credits).



Practical Skill Modules:

- PM-02: Apply Code to Use a Software Toolkit/Platform (NQF L4, 4 Credits).
- PM-03: Use Spreadsheets to Analyse and Visualise Data (NQF L4, 3 Credits).
- PM-05: Apply Statistical Tools and Techniques (NQF L5, 4 Credits).

Focus: Gaining essential statistical knowledge and initial practical skills in coding, spreadsheets, and data analysis platforms.

TERM 3: APPLIED DATA ANALYSIS & VISUALISATION (Months 7-9).

Knowledge Modules:

- KM-07: Data Science and Data Analysis (NQF L5, 12 Credits).
- KM-08: Data Analysis and Visualisation (NQF L5, 16 Credits).

Practical Skill Modules:

- PM-04: Use a Visual Analytics Platform to Analyse and Visualise Data (NQF L5, 4 Credits).
- PM-06: Collect and Pre-Process Large Amounts of Unruly Data (NQF L5, 12 Credits).
- PM-07: Apply Data Analysis Techniques to Uncover Patterns and Trends (NQF L5, 12 Credits).
- PM-09: Participate in a Design Thinking for Innovation Workshop (NQF L5, 3 Credits).

Work Experience Modules Commence:

- WM-01: Data Collection and Pre-processing Processes (NQF L5, 16 Credits).
- WM-02: Statistical Data Analysis Processes (NQF L5, 16 Credits).
- Focus: Applying core data science skills: data wrangling, analysis, and visualisation, supported by initial work-integrated learning.



TERM 4: CAPSTONE PROJECT & INTEGRATION (Months 10-11)

Practical Skill Module:

- PM-08: Prepare and Present Descriptive Analytic Reports for Decision Making (NQF L5, 12 Credits).

Work Experience Modules:

- WM-03: Data visualisation and Reporting Processes (NQF L5, 16 Credits).
- WM-04: Capstone Project Using an Appropriate Toolkit (NQF L5, 12 Credits).
- **Comprehensive Capstone Project:** Integrating all modules to solve a complex business problem through data.
- **Mock External Integrated Summative Assessment:** A simulated theoretical and practical evaluation.
- **Final Portfolio Consolidation & EISA Readiness Workshop:** Finalising all evidence for the external assessment.



External Integrated Summative Assessment (EISA) Management Process.

To ensure a smooth process for all learners, we manage the pathway to the final EISA as follows:

1. Eligibility Check: Learners must meet these criteria to qualify for the EISA:

- Achieve a passing score on all internal Knowledge and Practical Skill Module assessments.
- Submit a complete and verified logbook for all Work Experience Modules.
- Successfully complete the Capstone Project (WM-04).
- Be deemed "competent" and ready by the accredited provider.

2. EISA Registration Guidance: The facilitator will:

- Provide the necessary links and codes from the MICT SETA (the Assessment Quality Partner).
- Guide learners step-by-step through the registration process on the official platform.

3. Scheduling Support: We assist learners with:

- Selecting a convenient test date and time at a decentralised, approved assessment site.
- Understanding the requirements for the theoretical assessment and practical task evaluation.

4. Post-Course Support: After the programme concludes, learners retain access to:

- A dedicated channel on the YDP SA Community platform for final questions.
- Programme coordinator contact details for EISA registration assistance.

This managed process ensures each candidate is fully prepared to schedule and successfully complete their official external integrated summative assessment for the national qualification.

Qualification Outcomes

Upon successful completion, a qualified learner will be able to:

- Collect large amounts of structured and unstructured data from primary and secondary sources and extract and transform them into a usable format.
- Apply data analysis techniques to uncover patterns and trends in datasets to solve business-related problems.
- Prepare and present descriptive analytics reports on patterns and trends using computer programming languages and explain those patterns through visualisation and storytelling.



Updated Outcomes

Upon successful completion, a qualified learner will be able to:

- Collect large amounts of structured and unstructured data from primary and secondary sources and extract and transform them into a usable format.
- Apply data analysis techniques to uncover patterns and trends in datasets to solve business-related problems.
- Prepare and present descriptive analytics reports on patterns and trends using computer programming languages and explain those patterns through visualisation and storytelling.

Skills that will be acquired.

- Introduction to basic statistics.
- Introduction to mathematical foundations.
- Introduction to analytics and data science.
- Visualising data.
- Numerical Python.
- Python essentials.
- Data structure.
- Cleansing data.
- Excel
- Tableau
- SQL
- Data Analysis with Python.
- Data Visualization with Python.
- Visualisation tools.
- Statistical methods and hypothesis testing.
- Linear Regression.
- Logistic Regression.

Duration: 11 Months

Teaching mode: Hybrid (Blended Learning).

Start Date: To be confirmed

Instructional Language: English

Course fees per person: Pricing will be confirmed through mutual agreement with partner entity Jan 2026.

CYBERSECURITY ANALYST

"THE BEST WAY TO PREDICT THE FUTURE IS TO CREATE IT."

— PETER DRUCKER

YDP SA PRESENTS



OCCUPATIONAL CERTIFICATE: CYBERSECURITY ANALYST

SAQA QUAL ID: 118986 | NQF LEVEL 05

CYBERSECURITY ANALYST





Course Description.

This comprehensive programme provides in-depth education and training to prepare learners to operate as a **Cybersecurity Analyst**.

Learners will master the practice of protecting network, system, and information assets from malicious attacks and threats. The curriculum covers risk assessment and **mitigation, intrusion identification, security solution design**, and ensuring **legal compliance**. The programme integrates Knowledge, Practical Skill, and Work Experience Modules as per the **South African Qualifications Authority (SAQA)** curriculum, culminating in preparedness for the external integrated summative assessment.

Value Proposition.

This programme is designed to directly address the critical global shortage of cybersecurity professionals. You will gain industry-relevant, hands-on skills in high demand, significantly enhancing your employability for roles such as Security Analyst, Cybersecurity Specialist, and Security Consultant. The programme provides a formal and nationally recognised qualification (NQF Level 5), combining theoretical knowledge with applied practical skills and real-world work experience to ensure you are job-ready upon completion.

Who Should Attend

This qualification is ideal for a diverse cohort of learners:

- **School Leavers & Graduates:** Individuals seeking a formal qualification to launch a career in the high-growth technology sector.
- **Career Transitioners:** Professionals from other fields seeking to pivot into cybersecurity.
- **Incumbent IT Staff:** Support specialists, network administrators, and IT technicians without formal security credentials, looking to validate and formalise their skills.
- Anyone in employment without formal recognition of their cybersecurity competencies will find this course essential for career advancement.



Modules

Programme Duration: 11 Months (Full Curriculum Delivery)

TERM 1: FOUNDATIONAL SKILLS & CORE CONCEPTS (Months 1-3)

Knowledge Modules:

- KM-01: Introduction to Cybersecurity (NQF L4, 8 Credits).
- KM-04: Introduction to Cybersecurity Governance, Legislation and Ethics (NQF L4, 4 Credits).
- KM-05: Fundamentals of Design Thinking and Innovation (NQF L4, 1 Credit).
- KM-06: Logical Thinking and Basic Calculations (NQF L4, 3 Credits).
- KM-07: Computers, Devices and Computing Systems (NQF L4, 6 Credits).
- KM-09: Introduction to 4IR and Future Skills (NQF L4, 4 Credits).

Practical Skill Modules:

- PM-04: Apply Logical Thinking and Maths (NQF L4, 6 Credits).
- PM-07: Apply Design Thinking Methodologies (NQF L4, 4 Credits).
- PM-08: Function Ethically in a Multidisciplinary Team (NQF L4, 5 Credits).

Focus:

- Building a solid foundation in computing, ethics, logic, and the principles of cybersecurity.

TERM 2: TECHNICAL CYBERSECURITY PRINCIPLES (Months 4-6).

Knowledge Modules:

- KM-02: Fundamentals of Network Security and Defence (NQF L5, 12 Credits).
- KM-03: Cybersecurity Cyber Threats and Attacks (NQF L5, 12 Credits).
- KM-08: Data and Database Vulnerabilities (NQF L4, 3 Credits).



TERM 3: APPLIED CYBERSECURITY OPERATIONS (Months 7-9).

Practical Skill Modules:

- PM-01: Ensure Compliance in terms of Legal Cybersecurity Requirements (NQF L5, 4 Credits).
- PM-02: Assess Risks and Vulnerabilities and Current Security Measures (NQF L5, 20 Credits).
- PM-03: Implement Protection, Prevention and Detection Measures (NQF L5, 20 Credits)

Work Experience Modules Commence:

- WM-01: Compliance with Legal Cybersecurity Requirements (NQF L5, 12 Credits).
- WM-02: Cybersecurity Risk Assessment and Mitigation (NQF L5, 20 Credits).
- WM-03: Cybersecurity Detection, Protection and Prevention Processes (NQF L5, 20 Credits).

Focus:

- Applying knowledge to practical scenarios, including risk assessment, implementing security measures, and beginning work-integrated learning.

TERM 4: INTEGRATION & SUMMATIVE ASSESSMENT PREP (Months 10-11).

- **Comprehensive Capstone Project:** Integrating all Knowledge, Practical Skill, and Work Experience Modules to solve a complex business security problem.
- **Mock External Integrated Summative Assessment:** A simulated theoretical and practical evaluation under exam conditions.
- **Detailed Review Session:** Facilitator-led review of the mock assessment, focusing on incorrect answers and knowledge gaps.
- **Final Portfolio Consolidation & EISA Readiness Workshop:** Finalising all evidence for the external assessment and a guided session on the EISA process and booking.



External Integrated Summative Assessment (EISA) Management Process.

To ensure a smooth process for all learners, we manage the pathway to the final EISA as follows:

1. **Eligibility Check:** Learners must meet these criteria to qualify for the EISA:

- Achieve a passing score on all internal Knowledge and Practical Skill Module assessments.
- Submit a complete and verified logbook for all Work Experience Modules.
- Be deemed "competent" and ready by the accredited provider.

2. **EISA Registration Guidance:** The facilitator will:

- Provide the necessary links and codes from the MICT SETA (the Assessment Quality Partner).
- Guide learners step-by-step through the registration process on the official platform.

3. **Scheduling Support:** We assist learners with:

- Selecting a convenient test date and time at a decentralised, approved assessment site.
- Understanding the requirements for the theoretical assessment and practical task evaluation.

4. **Post-Course Support:** After the programme concludes, learners retain access to:

- A dedicated channel on the YDP SA Community platform for final questions.
- Programme coordinator contact details for EISA registration assistance.

This managed process ensures each candidate is fully prepared to schedule and successfully complete their official external integrated summative assessment for the national qualification.



Mapping to MICT SETA / SAQA Qualifications

This course is a direct implementation of the official Occupational Certificate: Cybersecurity Analyst (SAQA ID: 118986). The structure and content are fully aligned with the curriculum dictated by the Media, Information and Communication Technologies Sector Education and Training Authority (MICT SETA), which serves as the Development Quality Partner (DQP) and Assessment Quality Partner (AQP) for this qualification.

SAQA MODULE TYPE	MODULE CODE & TITLE	NQF LEVEL
Knowledge Module	252901-001-00-KM-01: Introduction to Cybersecurity	4
KNOWLEDGE MODULE	252901-001-00-KM-02: Fundamentals of Network Security and Defence	5
KNOWLEDGE MODULE	252901-001-00-KM-03: Cybersecurity and Cyber Threats and Attacks	5
KNOWLEDGE MODULE	252901-001-00-KM-04: Intro to Cybersecurity Governance, Legislation and Ethics	4
KNOWLEDGE MODULE	252901-001-00-KM-05: Fundamentals of Design Thinking and Innovation	4
KNOWLEDGE MODULE	252901-001-00-KM-06: Logical Thinking and Basic Calculations	4
KNOWLEDGE MODULE	252901-001-00-KM-07: Computers, Devices and Computing Systems	4
KNOWLEDGE MODULE	252901-001-00-KM-08: Data and Database Vulnerabilities	4
KNOWLEDGE MODULE	252901-001-00-KM-09: Introduction to 4IR and Future Skills	4



SAQA MODULE TYPE	MODULE CODE & TITLE	NQF LEVEL
PRACTICAL SKILL MODULE	252901-001-00-PM-01: Ensure Legal Compliance	5
PRACTICAL SKILL MODULE	252901-001-00-PM-02: Assess Risks and Vulnerabilities	5
PRACTICAL SKILL MODULE	252901-001-00-PM-03: Implement Protection Measures	5
PRACTICAL SKILL MODULE	252901-001-00-PM-04: Apply Logical Thinking and Maths	4
PRACTICAL SKILL MODULE	252901-001-00-PM-03: Implement Protection Measures	4
PRACTICAL SKILL MODULE	252901-001-00-PM-06: Access and Visualise Structured Data	5
PRACTICAL SKILL MODULE	252901-001-00-PM-07: Apply Design Thinking Methodologies	4
PRACTICAL SKILL MODULE	252901-001-00-PM-08: Function in a Multidisciplinary Team	4
PRACTICAL SKILL MODULE	252901-001-00-WM-01: Legal Compliance	5
WORK EXPERIENCE MODULE	252901-001-00-WM-02: Risk Assessment and Mitigation	5
WORK EXPERIENCE MODULE	252901-001-00-WM-03: Detection, Protection and Prevention	5



Updated Outcomes

Upon successful completion, a qualified learner will be able to:

- Analyse, identify, and solve potential and actual security risks, vulnerabilities, and inefficiencies to safeguard information system assets.
- Protect an organisation's digital assets by maintaining cybersecurity attack mitigation and incident response capabilities.
- Execute ethical cybersecurity monitoring to provide defence aligned with the value of company assets.
- Execute response procedures to mitigate cyber-attacks and secure information assets and systems.
- Execute recovery protocols to restore data and assets affected by cybersecurity incidents.

Duration: 11 Months

Teaching mode: Hybrid (Blended Learning).

Start Date: To be confirmed

Instructional Language: English

Course fees per person: Pricing will be confirmed through mutual agreement with partner entity Jan 2026.

CLOUD ADMINISTRATOR

“YOU MISS 100% OF THE SHOT YOU DON’T TAKE.”

— WAYNE GRETZKY

YDP SA PRESENTS



OCCUPATIONAL CERTIFICATE: CLOUD ADMINISTRATOR

SAQA QUAL ID: 118699 | NQF LEVEL 04





Course Description.

This comprehensive programme provides in-depth education and training to prepare learners to operate as a Cloud Administrator. Learners will master the practice of monitoring, maintaining, and troubleshooting networks of cloud platforms and computing resources, ensuring the seamless delivery of cloud services. The curriculum covers implementing cloud management services, maintaining security protocols, and securing cloud environments against unauthorized access and threats. The programme integrates Knowledge, Practical Skill, and Work Experience Modules as per the South African Qualifications Authority (SAQA) curriculum, culminating in preparedness for the external integrated summative assessment.

Value Proposition.

This programme is designed to address the critical global shortage of cloud computing professionals. You will gain industry-relevant, hands-on skills in one of the world's fastest-growing fields, significantly enhancing your employability for roles such as Cloud Administrator, Cloud Support Specialist, and Network Administrator. The programme provides a formal and nationally recognised qualification (NQF Level 4), combining theoretical knowledge with applied practical skills and real-world work experience to ensure you are job-ready upon completion.

Who Should Attend

This qualification is ideal for a diverse cohort of learners:

- **School Leavers & Graduates:** Individuals with an NQF Level 3 seeking to launch a career in the high-growth cloud computing sector.
- **Career Transitioners:** Professionals from other fields seeking to pivot into cloud administration and support.
- **Incumbent IT Staff:** Network support specialists, IT technicians, or system administrators looking to formalise and validate their cloud skills with a national qualification.
- Anyone in employment without formal recognition of their cloud administration competencies will find this course essential for career advancement.



Modules

Programme Duration: 11 Months (Full Curriculum Delivery)

TERM 1: CLOUD COMPUTING FOUNDATIONS (Months 1-3)

Knowledge Modules:

- KM-01: Introduction to Cloud Computing (NQF L4, 8 Credits).
- KM-06: Fundamentals of Cloud Computing Platforms (NQF L4, 3 Credits).
- KM-07: Introduction to Cloud Computing Governance, Legislation and Ethics (NQF L4, 1 Credit).
- KM-08: 4th Industrial Revolution (4IR) and Future Skills (NQF L4, 4 Credits).
- KM-09: Design Thinking Principles for Innovation (NQF L4, 1 Credit).

Practical Skill Modules:

- PM-05: Access and Visualise Structured Data Using Spreadsheets (NQF L4, 8 Credits).
- PM-06: Participate in a Design Thinking for Innovation Workshop (NQF L4, 3 Credits).
- PM-07: Function Ethically and Effectively in the Workplace (NQF L4, 4 Credits).

Focus:

- Building a solid foundation in cloud concepts, platforms, governance, ethics, and the principles of the 4th Industrial Revolution.

TERM 2: CLOUD INFRASTRUCTURE & SECURITY (Months 4-5)

Knowledge Modules:

- KM-02: Cloud Computing Elements (NQF L4, 8 Credits).
- KM-03: Containers, Cloud Native and Kubernetes (NQF L4, 4 Credits).



- KM-04: Cloud Security, Risks, Vulnerabilities and Mitigation (NQF L4, 3 Credits).
- KM-05: Data and Databases in the Cloud (NQF L4, 6 Credits).

Practical Skill Modules:

- PM-01: Conduct Effective Server Maintenance and Optimisation (NQF L4, 8 Credits).
- PM-04: Ensure Integrity of the Cloud Ecosystem by Implementing Security Measures (NQF L4, 8 Credits).

Focus:

- Gaining essential knowledge of cloud infrastructure, containers, security, and data management, alongside practical skills in server maintenance and security implementation.

TERM 3: CLOUD NETWORKING & STORAGE (Months 7-9).

Practical Skill Modules:

- PM-02: Monitor On-Demand Availability of Data Storage, Storage Capacity and Storage Services over the Internet (NQF L4, 8 Credits).
- PM-03: Provide Cloud Network Administration and Support for Optimal Performance (NQF L4, 16 Credits).

Work Experience Modules:

- WM-01: On-Demand Availability of Server Resources and Services over the Internet (NQF L4, 20 Credits).
- WM-02: On-Demand Availability of Data Storage, Storage Capacity and Storage Services over the Internet (NQF L4, 16 Credits).

Focus:

- Applying core cloud administration skills to networking and storage, supported by work-integrated learning in server and storage management.



TERM 4: ADVANCED OPERATIONS & CAPSTONE (Months 10-12).

Work Experience Modules:

- WM-03: Ensure Availability and Reliability of Network Connection According to Workflow and Security Protocols (NQF L4, 20 Credits).

Focus:

- Comprehensive Work Integration: Applying all learned skills in real-world cloud administration scenarios.
- Mock External Integrated Summative Assessment: A simulated theoretical and practical evaluation.
- Final Portfolio Consolidation & EISA Readiness Workshop: Finalising all evidence for the external assessment.



External Integrated Summative Assessment (EISA) Management Process.

To ensure a smooth process for all learners, we manage the pathway to the final EISA as follows:

Eligibility Check: Learners must meet these criteria to qualify for the EISA:

- Achieve a passing score on all internal Knowledge and Practical Skill Module assessments.
- Submit a complete and verified logbook for all Work Experience Modules.
- Be deemed "competent" and ready by the accredited provider.

EISA Registration Guidance: The facilitator will:

- Provide the necessary links and codes from the Services SETA (the Assessment Quality Partner).
- Guide learners step-by-step through the registration process on the official platform.

Scheduling Support: We assist learners with:

- Selecting a convenient test date and time at a decentralised, approved assessment site.
- Understanding the requirements for the theoretical assessment and practical task evaluation.

Post-Course Support: After the programme concludes, learners retain access to:

- A dedicated channel on the YDP SA Community platform for final questions.
- Programme coordinator contact details for EISA registration assistance.

This managed process ensures each candidate is fully prepared to schedule and successfully complete their official external integrated summative assessment for the national qualification.

Qualification Outcomes

Upon successful completion, a qualified learner will be able to:

- Implement cloud solutions and services related to cloud computing, networks, security, and storage.
- Monitor and maintain servers and networks for optimal cloud performance.
- Monitor on-demand availability of data, data storage and storage capacity.
- Apply security configurations and compliance controls to meet cloud infrastructure requirements.

Mapping to MICT SETA / SAQA Qualifications



This course is a direct implementation of the official Occupational Certificate: Cloud Administrator (SAQA ID: 252301-001-00-00). The structure and content are fully aligned with the curriculum dictated by the Services Sector Education and Training Authority (Services SETA), which serves as the Assessment Quality Partner (AQP) for this qualification.

1. KNOWLEDGE MODULES (Total Credits: 38)

	MODULE CODE & TITLE	NQF LEVEL
1.1	252301-001-00-KM-01: Introduction to Cloud Computing	4
1.2	252301-001-00-KM-02: Cloud Computing Elements	4
1.3	252301-001-00-KM-03: Containers, Cloud Native and Kubernetes	4
1.4	252301-001-00-KM-04: Cloud Security, Risks, Vulnerabilities and Mitigation	4
1.5	252301-001-00-KM-05: Data and Databases in the Cloud	4
1.6	252301-001-00-KM-06: Fundamentals of Cloud Computing Platforms	4
1.7	252301-001-00-KM-07: Intro to Cloud Computing Governance, Legislation and Ethics	4
1.8	252301-001-00-KM-08: 4th Industrial Revolution (4IR) and Future Skills	4
1.9	252301-001-00-KM-09: Design Thinking Principles for Innovation	4



2. PRACTICAL SKILL MODULES (Total Credits: 55)

	MODULE CODE & TITLE	NQF LEVEL
2.1	252301-001-00-PM-01: Conduct Effective Server Maintenance and Optimisation	4
2.2	252301-001-00-PM-02: Monitor On-Demand Availability of Data Storage, Storage Capacity and Storage Services over the Internet	4
2.3	252301-001-00-PM-03: Provide Cloud Network Administration and Support for Optimal Performance	4
2.4	252301-001-00-PM-04: Ensure Integrity of the Cloud Ecosystem by Implementing Security Measures	4
2.5	252301-001-00-PM-05: Access and Visualise Structured Data Using Spreadsheets	4
2.6	252301-001-00-PM-06: Participate in a Design Thinking for Innovation Workshop	4
2.7	252301-001-00-PM-07: Function Ethically and Effectively in the Workplace	4

3. WORK EXPERIENCE MODULES (Total Credits: 56)

	MODULE CODE & TITLE	NQF LEVEL
3.1	252301-001-00-WM-01: On-Demand Availability of Server Resources and Services over the Internet	4
3.2	252301-001-00-WM-02: On-Demand Availability of Data Storage, Storage Capacity and Storage Services over the Internet	4
3.3	252301-001-00-WM-03: Ensure Availability and Reliability of Network Connection According to Workflow and Security Protocols	4

Total Credits for the Full Qualification: 149



Updated Outcomes

Upon successful completion, a qualified learner will be able to:

- Implement the cloud management service.
- Monitor and maintain specific elements of the cloud, cloud users, the cloud environment and overall cloud performance.
- Maintain security protocols to secure cloud environments against unauthorised access, threats, and other risks.

Skills that will be acquired.

- Cloud Computing Fundamentals and Platforms
- Server Maintenance and Optimisation
- Cloud Network Administration and Support
- Cloud Security Implementation and Risk Mitigation
- Data Storage Management in the Cloud
- Data Analysis and Visualisation with Spreadsheets
- Container Technologies including Kubernetes
- Cloud Governance, Legislation and Ethics
- Design Thinking for Innovation
- Ethical and Effective Workplace Collaboration

Duration: 11 Months

Teaching mode: Hybrid (Blended Learning).

Start Date: To be confirmed

Instructional Language: English

Course fees per person: Pricing will be confirmed through mutual agreement with partner entity Jan 2026.

ARTIFICIAL INTELLIGENCE SOFTWARE DEVELOPER

"DON'T WAIT FOR THE RIGHT MOMENT TO START; START & MAKE EACH MOMENT RIGHT."

— ROY BENNET

YDP SA PRESENTS



OCCUPATIONAL CERTIFICATE: ARTIFICIAL INTELLIGENCE SOFTWARE DEVELOPER

SAQA QUAL ID: 118792 | NQF LEVEL 05





Course Description.

This comprehensive programme provides in-depth education and training to prepare learners to operate as an Artificial Intelligence Software Developer. Learners will master the practice of building AI functionality into software applications by integrating and implementing AI algorithms and logic. The curriculum covers interpreting solution designs, training AI models through machine learning, testing performance, and deploying & maintaining AI solutions. The programme integrates Knowledge, Practical Skill, and Work Experience Modules as per the South African Qualifications Authority (SAQA) curriculum, culminating in preparedness for the external integrated summative assessment.

Value Proposition.

This programme is designed to address the critical global shortage of AI and software development professionals. You will gain industry-relevant, hands-on skills in one of the world's most transformative fields, significantly enhancing your employability for roles such as AI Developer, Machine Learning Engineer, AI Technician, and Business Intelligence (BI) Developer. The programme provides a formal and nationally recognised qualification (NQF Level 5), combining theoretical knowledge with applied practical skills and real-world work experience to ensure you are job-ready upon completion.

Who Should Attend

This qualification is ideal for a diverse cohort of learners:

- **School Leavers & Graduates:** Individuals with an NQF Level 4 seeking to launch a career in the high-growth AI and technology sector.
- **Career Transitioners:** Professionals from other fields with a quantitative or logical mindset seeking to pivot into artificial intelligence.
- **Incumbent IT/Software Staff:** Programmers, technicians, or data handlers looking to formalise and validate their AI and machine learning skills with a national qualification
- Anyone in employment without formal recognition of their AI development competencies will find this course essential for career advancement.



Modules

Programme Duration: 11 Months (Full Curriculum Delivery)

TERM 1: AI & COMPUTING FOUNDATIONS (Months 1-3)

Knowledge Modules:

- KM-01: Overview of Artificial Intelligence (NQF L4, 2 Credits)
- KM-02: Introduction to Mathematics and Statistics (NQF L4, 10 Credits).
- KM-03: Analytical Thinking and Problem Solving (NQF L4, 3 Credits).
- KM-05: Computing Theory (NQF L4, 8 Credits).
- KM-10: Introduction to Governance, Legislation and Ethics (NQF L4, 1 Credit).
- KM-11: Fundamentals of Design Thinking and Innovation (NQF L4, 1 Credit).
- KM-12: 4IR and Future Skills (NQF L4, 4 Credits).

Practical Skill Modules:

- PM-01: Mathematics and Statistics for Programming (NQF L4, 8 Credits).
- PM-02: Problem Definition, Analytical Thinking and Decision-Making (NQF L4, 2 Credits).
- PM-10: Function Ethically and Effectively as a Member of a Multidisciplinary Team (NQF L4, 3 Credits).
- **Focus:** Building a solid foundation in AI concepts, mathematics, statistics, computing logic, ethics, and the principles of the 4th Industrial Revolution.

TERM 2: DATA & PROGRAMMING FUNDAMENTALS (Months 4-6).

Knowledge Modules:

- KM-04: Data, Databases and Data Visualisation (NQF L4, 8 Credits).
- KM-06: Introduction to Artificial Intelligence, Machine Learning, Deep Learning (NQF L4, 5 Credits).



Practical Skill Modules:

- PM-03: Access, Analyse and Visualise Structured Data Using Spreadsheets (NQF L4, 4 Credits).
- PM-04: Use SQL to Communicate with a Database (NQF L5, 4 Credits).
- PM-11: Participate in a Design Thinking for Innovation Workshop (NQF L4, 4 Credits).

Focus:

- Gaining essential knowledge of data management, databases, and core AI concepts, alongside initial practical skills in data analysis, SQL, and design thinking.

TERM 3: CORE AI & MACHINE LEARNING DEVELOPMENT (Months 7-9).

- KM-07: Artificial Intelligence (NQF L5, 12 Credits).
- KM-08: Machine Learning (NQF L5, 16 Credits).

Practical Skill Modules:

- PM-05: Build a simple AI solution using Python (NQF L5, 8 Credits).
- PM-06: Use Python Data Scraping to Populate Database Table in SQL (NQF L5, 4 Credits).
- PM-07: Use Machine Learning to Build an AI solution in Python (NQF L5, 6 Credits).

Work Experience Modules:

- WM-01: AI Solution Design Interpretation and Development (NQF L5, 20 Credits).

Focus:

- Applying core AI and machine learning principles to build practical solutions using Python and SQL, supported by initial work-integrated learning.



TERM 4: ADVANCED AI DEPLOYMENT & CAPSTONE (Months 10-11).

- KM-09: Deep Learning (NQF L5, 16 Credits)

Practical Skill Modules:

- PM-08: Use Deep Learning to Build an AI Neural Network Architecture in Python (NQF L5, 10 Credits).
- PM-09: Use Deep Learning to Build an AI Neural Network Architecture in TensorFlow (NQF L5, 10 Credits).

Work Experience Modules:

- WM-02: AI Solution Performance Testing (NQF L5, 20 Credits).
- WM-03: AI Solution Deployment, Modification and Improvement (NQF L5, 20 Credits).

Focus:

- **Comprehensive Capstone Project:** Integrating all modules to design, develop, test, and deploy a complex AI solution for a real-world problem.
- **Mock External Integrated Summative Assessment:** A simulated theoretical and practical evaluation.
- **Final Portfolio Consolidation & EISA Readiness Workshop:** Finalising all evidence for the external assessment.



External Integrated Summative Assessment (EISA) Management Process.

(This section would be identical in structure to the provided examples, outlining Eligibility Check, Registration Guidance, Scheduling Support, and Post-Course Support. The content would be tailored to the AI Software Developer qualification and its specific AQP, which is the MICT SETA.)

Qualification Outcomes

Upon successful completion, a qualified learner will be able to:

- Gather and interpret data from various sources to define an AI solution to a real-life world problem.
- Critically analyse data and create a solution design document (SDD) for an AI solution.
- Train the AI model through a machine learning process and ensure model accuracy is maintained.
- Deploy the AI solution and maintain it to ensure ongoing model accuracy and performance.

Mapping to MICT SETA / SAQA Qualifications



This course is a direct implementation of the official Occupational Certificate: Artificial Intelligence Software Developer. The structure and content are fully aligned with the curriculum dictated by the Media, Information and Communication Technologies Sector Education and Training Authority (MICT SETA), which serves as the Development Quality Partner (DQP) and Assessment Quality Partner (AQP) for this qualification.

1. KNOWLEDGE MODULES (Total Credits: 86)

	MODULE CODE & TITLE	NQF LEVEL
1.1	251201-002-00-KM-01: Overview of Artificial Intelligence	4
1.2	251201-002-00-KM-02: Introduction to Mathematics and Statistics	4
1.3	251201-002-00-KM-03: Analytical Thinking and Problem Solving	4
1.4	251201-002-00-KM-04: Data, Databases and Data Visualisation	4
1.5	251201-002-00-KM-05: Computing Theory	4
1.6	251201-002-00-KM-06: Intro to AI, Machine Learning, Deep Learning	4
1.7	251201-002-00-KM-07: Artificial Intelligence	5
1.8	251201-002-00-KM-08: Machine Learning	5
1.9	251201-002-00-KM-09: Deep Learning	5
1.10	251201-002-00-KM-10: Intro to Governance, Legislation and Ethics	4
1.11	251201-002-00-KM-11: Fundamentals of Design Thinking and Innovation	4



2. PRACTICAL SKILL MODULES (Total Credits: 59)

	MODULE CODE & TITLE	NQF LEVEL
2.1	251201-002-00-PM-01: Mathematics and Statistics for Programming	4
2.2	251201-002-00-PM-02: Problem Definition, Analytical Thinking and Decision-Making	4
2.3	251201-002-00-PM-03: Access, Analyse and Visualise Structured Data Using Spreadsheets	4
2.4	251201-002-00-PM-04: Use SQL to Communicate with a Database	5
2.5	251201-002-00-PM-05: Build a simple AI solution using Python	5
2.6	251201-002-00-PM-06: Use Python Data Scraping to Populate Database Table in SQL	5
2.7	251201-002-00-PM-07: Use Machine Learning to Build an AI solution in Python	5
2.8	251201-002-00-PM-08: Use Deep Learning to Build an AI Neural Network Architecture in Python	5
2.9	251201-002-00-PM-09: Use Deep Learning to Build an AI Neural Network Architecture in TensorFlow	4
2.10	251201-002-00-PM-11: Participate in a Design Thinking for Innovation Workshop	4



3. WORK EXPERIENCE MODULES (Total Credits: 60)

	MODULE CODE & TITLE	NQF LEVEL
3.1	251201-002-00-WM-01: AI Solution Design Interpretation and Development	5
3.2	251201-002-00-WM-02: AI Solution Performance Testing	5
3.3	251201-002-00-WM-03: AI Solution Deployment, Modification and Improvement	5

Total Credits for the Full Qualification: 209

Updated Outcomes

Upon successful completion, a qualified learner will be able to:

- Interpret solution design documentation and develop an AI solution.
- Train the AI model through a machine learning process and test the performance to ensure that model accuracy is strictly maintained.
- Deploy the AI solution and maintain the solution to ensure ongoing model accuracy.

Skills that will be acquired.

- Analytical Thinking and Problem Solving
- Mathematics and Statistics for Programming
- Data Analysis and Visualisation with Spreadsheets
- SQL for Database Communication
- Python Programming for AI
- Machine Learning Model Development
- Deep Learning and Neural Networks (using Python and TensorFlow)
- AI Solution Design, Testing, Deployment, and Maintenance
- Ethical Collaboration and Design Thinking

Duration: 11 Months

Teaching mode: Hybrid (Blended Learning).

Start Date: To be confirmed

Instructional Language: English

Course fees per person: Pricing will be confirmed through mutual agreement with partner entity Jan 2026.

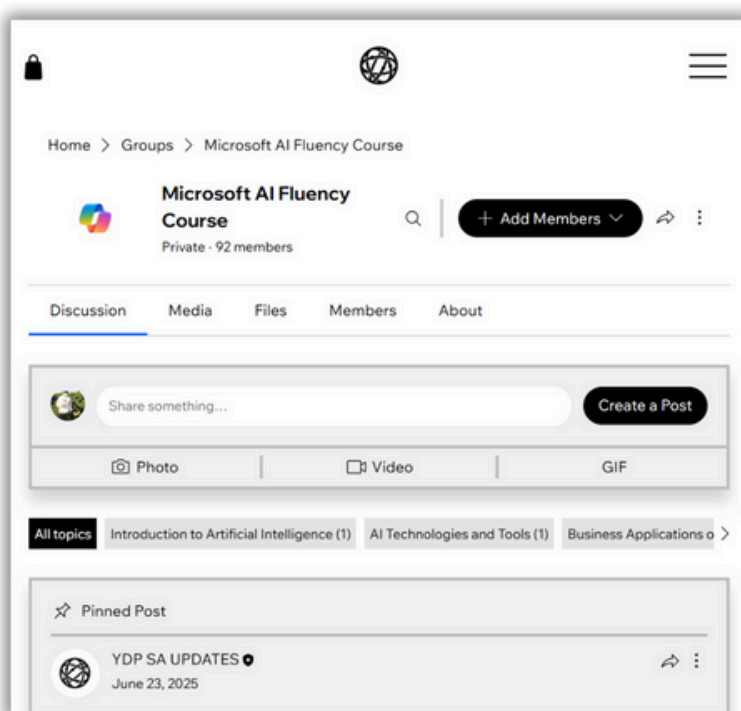
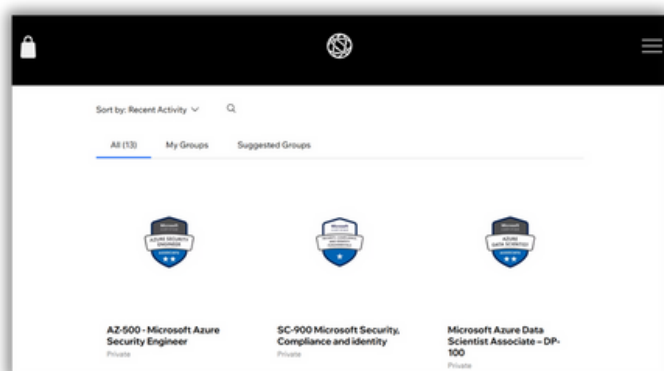
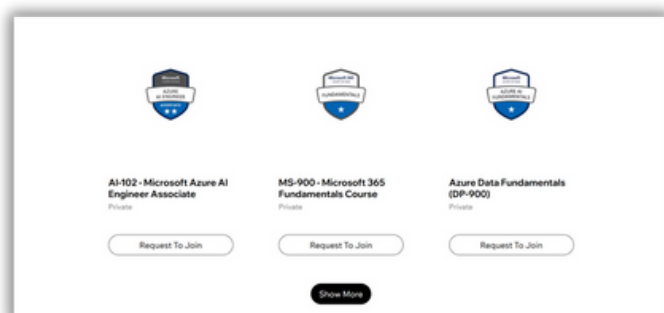
THE COMMUNITY

“THERE’S NO SUCH THING AS TIME MANAGEMENT; THERES ONLY SELF MANAGEMENT”

— RORY VADEN



GROUP COMMUNITY



These groups have been carefully designed to establish the ideal community structure for our upcoming partnerships with esteemed organizations like yours. They provide a space where students and professionals can support each other, foster collaboration, enhance communication, and increase productivity for all stakeholders. Think of this as the future *South African Student LinkedIn*, except platforms tailored to each cohort based on our courses for a tailored and unique experience. For example, a **'Cybersecurity Analyst'** group will be launched early next year to bring together students and professionals registered in our courses, creating a space for collaboration, knowledge sharing, and networking.

The groups will also serve as hubs for preparing and promoting events such as career guides like our 'Issue 07: [Pathway To A Cybersecurity Career](#) (Dlalis, 2024)' as well as hosting guest speakers. Students will receive badges indicating their institution, making it easy to identify peers for collaboration. This represents the future of e-learning, elevating engagement and enhancing the value of the courses we offer to your current and future database.

These platforms have automated email marketing campaigns to ensure no students misses out on the latest updates.

SKILLS DEVELOPMENT AND JOB READINESS FRAMEWORK

Our Skills Development & Job Readiness Framework ensure we set the right pipelines to maximize job placement with our database.

Step 1: Candidate Accumulation via Social Platforms

Target students, graduates, and professionals strategically. In most cases opt for students in groups to fair better numbers.

Step 2: Centralized Onboarding System

We will develop a centralized onboarding system using our CRM (DBMS) to efficiently register and categorize students & professionals based on their skill level, goals, and readiness. This ensures every student & professional is accounted for and their progress is tracked from day one.

Step 3: Weekly Progress Tracking Dashboards

We will implemented real-time dashboards and weekly progress check-ins that allow YDP SA & PLUS to monitor engagement, identify challenges early, and offer tailored support to keep everyone aligned with the group's objectives.

Step 4: Clear Academic Logistics Roadmap

We will create a clear and structured roadmap that outlines learning modules, group session schedules, objectives, and deadlines. This helps all students stay on track and removes any confusion about the logistics of the academic process.

Step 5: Weekly SDR-Led Q&A Sessions

Our team will conduct weekly Q&A sessions focused on course material, CRM tools, and SDR best practices. These sessions ensure students & professionals get the clarity and technical support they need to remain confident and competent throughout the course.

Step 6: Collaborative Online Peer Community

We have built a vibrant compartmentalized online community using collaboration platforms on our www.ydpsa.com/groups platform where students & professionals will interact, ask questions, form study groups, and support one another with our wider network nationally with our other university partners for other course that we curate. This makes learning more enjoyable and encourages teamwork.

SKILLS DEVELOPMENT AND JOB READINESS FRAMEWORK

Step 7: Personalized Learning Plans and Mentorship

We assigned team leaders and mentors to students to guide them through personalized development plans. These plans are aligned with individual career aspirations and provide consistent motivation and direction.

Step 8: Bi-Weekly Skills Assessments and Feedback

We will conduct practical skill assessments and give constructive feedback every week. This approach allows us to track development, celebrate progress, and make necessary adjustments to maximize student success.

Step 9: Job Readiness initiatives

We run intensive initiatives focused on building real-world job readiness skills like CV preparation, LinkedIn optimization, personal branding, and mock interviews. These equip students to stand out in a competitive job market.

Step 10: Potential Job placements

With our extensive B2B network, we collaborate closely to place the right talent in meaningful jobs and actively combat the pressing issue of youth unemployment. Through potential partnerships such as with Microsoft. We aim to equip young professionals with cutting-edge, in-demand skills in areas like AI, cloud computing, and cybersecurity, empowering them to add real value to forward-thinking companies.



NEXT STEPS & STRATEGIC VALUE ADDITION

The development of these four occupational certificates; **Data Science**, **Cybersecurity**, **AI Software Development**, and **Cloud Administration**, establishes a powerful foundation. Our immediate next step is to move from curriculum design to active recruitment and delivery, creating the first cohorts of job-ready tech professionals for the South African market and beyond.

However, to truly distinguish our graduates and ensure they are not just qualified but highly sought-after, we will implement a strategic enhancement to the learning journey: the integration of globally recognized, industry-specific certifications.

Our Commitment: Bridging National Qualification with Global Currency

While the **SAQA NQF** qualifications provide a crucial formal and nationally recognized foundation, the tech industry often uses specific **international certifications** as a benchmark for practical, hands-on skills. Our programme will be one of the first to systematically bridge this gap.

We are committed to working towards sponsoring our students to attain key international certifications alongside their core qualification. This dual-credential strategy will significantly boost their confidence, specialise their skills, and dramatically improve their job placement prospects by providing:

- **Global Recognition:** Certifications from leading tech platforms are valued by employers worldwide.
- **Verified Skill Validation:** They provide third-party, objective proof of competency in specific tools and domains.
- **A Competitive Edge:** In a crowded job market, holding both a national qualification and an international certification makes a candidate exceptionally compelling.

Proposed Certification Pathways by Programme

We will guide and support our students in obtaining relevant certifications, strategically timed to complement their learning modules. Examples include:

1. For Data Science Practitioner Students:

- **Python for Automation & Analysis:** A certification in **Python** validates the core programming skill taught in the course.
- **Data Visualization:** A **Tableau Desktop Specialist** or **Microsoft Power BI certification** will officially endorse their data storytelling abilities, making them instantly valuable to any business intelligence team.



CALL TO ACTION

The future of work is here, and it is digital. Don't just earn a qualification; build an undeniable competitive advantage.

For Prospective Students:

This is your unique opportunity to launch a future-proof career with an unparalleled head start. You will graduate with a nationally recognised SAQA qualification and the globally respected certifications that employers demand. You won't just be learning theory; you will be building a portfolio of verified skills that scream "hire me" to top companies locally and internationally.

For Industry Partners & Potential Sponsors:

We are not just training; we are crafting the exact talent you need. By partnering with us, you gain direct access to a pipeline of graduates who are already proficient in the specific tools and platforms that drive your business. Join us in this initiative. Your sponsorship of these critical certifications is an investment in a skilled, stable, and innovative future for our industry, yielding a direct return in the form of readily employable, high-caliber talent.

We are flexible to tailor this to your organizations needs as we will continue to adapt to changes in needs of your organisation and industry demands. Adaptivity is pivotal. Let's work together to fill in the missing gaps. More courses coming soon

Let's build the future of EdTech, together.

Thank you.



1. YDP SA | QUANTUM LEARNING APP

We've engineered a youth-built AI software titled: '**YDP SA | QUANTUM LEARNING APP**' providing comprehensive exam preparation, interview simulation, and professional development across all fields. This interactive platform - featuring educational quizzes, IQ testing, and personalized learning pathways - demonstrates the powerful innovation potential of South Africa's youth.

Where artificial intelligence meets your ambition.

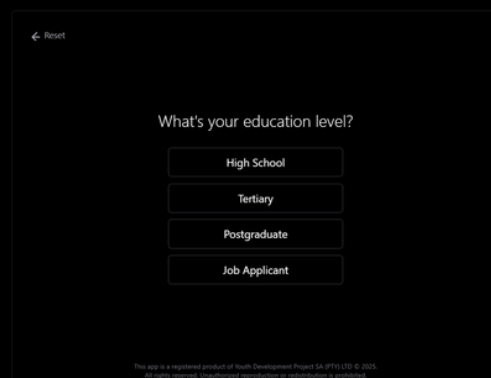
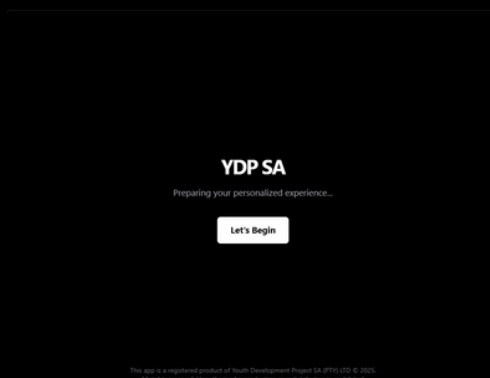
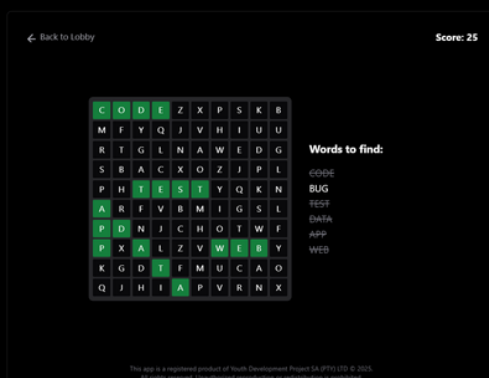
This is not just another learning platform; it's a real-time, adaptive engine for your professional growth.

Challenge your mind with rapid vocabulary drills, decode themed **WORD** puzzles, and test your coding skills in the **Code IQ Arena**. Navigate true-to-life professional scenarios and generate unlimited, personalized **mock exams & Adaptive Interview Preps** on demand for **High School Students** to **Postgraduate Levels & beyond**.

Powered by live data, the app tailors every interaction to your specific field and experience level. It doesn't just teach, it adapts, ensuring every lesson is uniquely relevant to you.

And that's only the beginning. Dive into our expanding library of industry-leading courses, developed with expert trainers in high-demand roles such as:

- Artificial Intelligence Software Developer,
- Cloud Administrator,
- Cyber Analyst,
- Data Science Practitioner & more.



CO - BRANDED ITEMS
COMING SOON



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(Noun) The desire to **promote** the **welfare** of others expressed for good causes.

YDP SA



BUILT FOR 3YEARS - EST 2025

