FACT SHEET

Occupational Certificate:

Data Science Practitioner

(Distance Learning)

CTU training solutions | Private Tertiary Education

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Data Science Practitioner

FACULTY OF INFORMATION TECHNOLOGY			
Occupational Studies: 2027 Fact Sheet			
Programme Title	**SAQA ID**	**Credits**	**NQF**
Occupational Certificate: Data Science Practitioner	118708	185	5

Programme description

The purpose of this qualification is to prepare a learner to operate as a Data Science Practitioner.

Data Science Practitioners take custody of data and make the data available in a structured form for the Data Scientist to use. They support the data life cycle by collecting, transforming, and analysing data and communicating results to solve elementary business problems. They transform data into robust, comprehensive data sets, aligned with the problem identified in the statement of work and ready for storage.

Admission requirements

The minimum entry requirement for this qualification is:

- NQF level 4 qualification (Grade 12/NSC) with Mathematics and CAT/Computer Science highly recommended.

Mode of study | Duration

Distance Learning | 12 Months

Distance learning is a mode of education that allows students to study remotely without needing to attend physical classes on a daily basis. It provides flexibility and accessibility, enabling learners to access course materials, complete assignments, and engage with instructors online or through blended methods. Distance learning is ideal for individuals who may be working, have personal commitments, or live far from an educational institution. With the support of digital tools, academic resources and periodic tutorials or consultations, students can progress through their studies at their own pace while still receiving structured guidance and support from qualified facilitators *(while adhearing to assessment submission deadlines)*.

Distance Learning involves independent self-paced learning with access to digital resources, study guides, recordings, and a monthly scheduled virtual session with a facilitator.

This is a Distance Learning (self-study) programme offered over **12 Months, (1 Online Saturday session per month)** **2 intakes per year**

Distance Learning (Self-Study): 12 Months

This is a self-study programme. However, students will be privileged to attend tutorial classes once a month between 9 am – 12 pm (Optional) on a weekend

Programme outline

1st Semester Subjects:

- DAF511: Introduction to Data Fundamentals
- LOT511: Logical Thinking Basic Calculations
- DET511: Design Thinking Techniques
- CAF511: Computer Architecture Fundamentals

2nd Semester Subjects:

- COP512: Computer Programming
- STA512: Statistics
- DAN512: Data Analytics
- DAV512: Data Visualisation
- WRN512: Work Readiness

Teaching and Learning Methodology

Our teaching and learning methodology are designed to ensure that students receive quality education, engage in active learning, and achieve their academic and career goals while studying remotely.

Teaching & Learning Approach:

Self-Paced Learning:

Students are provided with structured course materials that allow them to study at their own pace. These materials include:

- Comprehensive study guides
- Prescribed textbooks and reference materials
- Class recordings for all modules

Interactive Learning:

To enhance understanding and engagement, students have access to:

- Online discussion forums to interact with peers and lecturers
- Case studies, practical activities, and self-assessment.

Tutor Support:

Distance learners are not alone in their journey. Academic support is available through:

- Specialized tutorial sessions once a month.
- Email and online chat with subject tutors
- Feedback on assignments and progress tracking.

Assessment and Evaluation:

To ensure mastery of the subject content, assessments include:

- Formative Assessments (Assignments,)
- Summative Assessments (DHET Final examination)

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Practical Training (For Applicable Courses)

For programs that require practical experience, students must:

- Complete work-integrated learning (WIL) or internships
- Submit workplace logbooks and reports for assessment
- Participate in practical simulations (if available online)

Textbooks and e-guides

- A list of prescribed textbooks will be provided in your e-guides. Students will receive an electronic version of the academic guides (e-guides) for this programme on the Teaching and Learning platform. Access is available to an electronic library of textbooks on O'Reilly, and it is included in the fees. Refer to the **Device Specifications and Stationery List** document for more information.

Technology hardware, software and data requirements

- A laptop is required to access VLIT sessions, complete practical activities and assessments, and run data science software.
- Suggested laptop specifications: Intel Core i5 or AMD Ryzen 5 processor, 8 GB RAM (16 GB recommended), and a 256 GB SSD (512 GB recommended), with at least 20 GB of free storage for software and datasets.
- A 64-bit Windows 11 laptop is recommended for compatibility with Power BI Desktop. Students using another operating system should confirm install a similar software to PowerBI
- A stable internet connection and at least 20 GB of data per month are required. Uncapped internet is recommended; software downloads, datasets and video sessions may require additional data.
- A webcam, microphone or headset, and an up-to-date web browser are required for virtual sessions and online activities.
- Suggested software: Python 3 with Jupyter Notebook or JupyterLab for programming and analysis; pandas and NumPy for data preparation and numerical work; Matplotlib for charts; and Visual Studio Code with the Python and Jupyter extensions for coding.
- Microsoft Excel for spreadsheet analysis and Microsoft Power BI Desktop for reports and dashboards are recommended, subject to the module requirements. Microsoft Excel requires an appropriate licence.
- SQLite is suggested for introductory SQL and database practice. Facilitators will confirm the prescribed database software and versions for each module.
- Students should install only the software specified by their facilitator and maintain backups of datasets, notebooks and assessment files

Student Support

Student support sessions with the facilitator will also take place on a one-on-one basis virtually per appointment or per the academic schedule.

Career fields

Students can be employed in the following career fields:

- Data Science Practitioner
- Junior Data Analyst
- Data Preparation Assistant
- Data Quality Assistant
- Data Collection Officer
- Reporting Assistant
- Data Visualisation Assistant
- Business Intelligence Assistant
- Data Management Assistant

Internal Assessments:

Students will be required to use The Invigilator app when completing online assessments. The app supports the integrity and secure administration of online assessments and is used alongside the institution's online assessment platform. Students will receive guidance and training on the installation and use of the app before it is required for an assessment.

External Assessments: What is EISA?

an integral and critical component of the QCTO's quality assurance system. It is a single national assessment leading to the awarding of an Occupational Certificate. EISA ensures that the assessment of occupational qualifications, part qualifications and trades is standardised, consistent and credible.

For learners to qualify for entry to EISA, they must provide proof of completion of all required knowledge, practical and work experience modules as stipulated in the qualification. The statement of results obtained from the Skills Development Provider serves as proof that the candidate has satisfied all the requirements to be admitted to sit for EISA.

Upon completion of this course, students will be awarded an **Occupational Certificate Data Science Practitioner.**

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International Certifications

International examinations are optional and are not included in Distance Learning tuition fees. Students who wish to complete an international examination can register for the relevant Short Learning Course (SLC). The SLC fee covers exam preparation sessions and one vendor examination voucher. If a student is unsuccessful on their first attempt, they will be responsible for the cost of any subsequent examination attempts.

Student's Own Account / Additional Cost:

- DP900: Microsoft Certified: Azure Data Fundamentals
- PL-300: Microsoft Certified: Power BI Data Analyst Associate`
- ITSPC-Python
- MO-201

Pricing*

Programme	Registration Fees	Tuition fee
Year 1	R4 500	Contact a CTU campus/ consultant for the latest fee information and payment options.

*** Excludes external fees and identified textbooks if applicable.**

Payment

Visit our website to view the payment method.
Payment Methods.

APPLY for Student Loan HERE!

Additional costs

Students must make provision for additional items such as textbooks, stationery, supplementary examinations, research costs and printing, field trips etc.

Disclaimer

The content of this fact sheet is subject to change without notification due to market trends in the industry, legislation and/or programme version updates. Refer to website for the latest version of the prospectus. CTU Training Solutions (PTY) Ltd, reserves the right to change the programme content without prior notice. Additional international exams may be written but are not included in the programme fee. Minimum student (capacity) group sizes will fall into the Virtual Instructor-Led programme commencing in the months of February & July of each year.

I (Name of student):..... hereby acknowledge that I understand the information stated in this document and fully comprehend the specifics explained above pertaining to this qualification.

Student signature:.....

Signature of legal guardian:.....

Name of legal guardian:.....

Consultant signature:.....

Name of sales consultant:.....

Date:.....

*** Please note the original signed copy should be kept on the student record file.**

CONTACT US

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