

Topic	Description
Introduction to Data	<p>Discusses the power of data today for citizens and society. Data and you. Why is data so important to organisations today.</p> <p>Understand the career options are available for data professionals.</p>
Data Evolution	<p>Huge changes that have taken place over the past 15-20 years because of the digital age. Understand what has enabled the 4th Industrial Revolution to take place?</p> <p>What is big data and why is cloud computing so important.</p>
Data Disciplines	<p>This module provides an overview of the key disciplines in data management. From machine learning, how to visualise your data with charts and infographics to big data and data science. You will understand why data analysis is so important.</p>
Working with Data	<p>This module will provide practical, hands-on learning in 3 key areas. Starting with basic Microsoft excel and then progressing through Entity Relationship Modelling and Structured Query Language (SQL).</p> <p>This will provide you with the foundational understanding for working with databases and understanding how data can be joined together to provide powerful insight.</p>

Engineering	This section of the academy will allow you to learn practical skills, how to produce code with Python and use applications and tools commonly used in IT and technical teams globally.
Introduction to Databases	Databases are the key to understanding how your favourite social media sites operate, how data can be searched. You will understand how to create simple databases and how to populate them with data. You will understand how to structure a database and understand what metadata is.
Data Exploitation	This module builds upon the skills you have acquired. You will understand a number of ways data is used in different industries. From profiling and understanding customers, how predictive modelling and forecasting helps business decision making.
Data Visualisation	Story telling is a critical skill for business stakeholders and customers to understand findings from business analysis, reach conclusions and make recommendations. Helping non-technical business people to understand technical matters in a clear and concise way, using charts, tables and dashboards to present the story and provide insight.
Advanced SQL	This module builds upon your new SQL skills to enable understanding of how to create more complex databases. You will understand how data can be sourced from multiple systems to provide rich data organisations can use to create competitive advantage.

Business Data Strategy	What does it mean to be a data driven organisation? How do organisations operate and how does data help them become more effective, and make strategic plans to move them forward?
Enterprise Architecture	This module provides understanding of how systems and data is architected across large organisations. How is data collated and managed? What frameworks, processes and governance structures are necessary to ensure data is always safe and secure.
Data Excellence	Understand how top organisations think about data and structure themselves to responsibly manage data. Understand the key data roles within a business and how understanding data management is central to today's successful businesses.
Statistics for Data Science	Statistics is at the core of machine learning algorithms. Data scientists use statistics to analyse business problems, understand trends and draw conclusions. Understand variables and their impact.
Data Science	This module combines the learning from the course. Statistics, the use of python and analysis skills to be applied to some real life use cases. Students will produce a project using all the tools and techniques they have acquired. tools and techniques they have acquired.