AAQ IT: Data Analytics

Studied during Year 12

F200: Fundamentals of Data Analytics
Mandatory Unit, assessed by examination

This unit examines about the fundamental knowledge required for a career working in data-related occupations. Topics include:

Topic Area 1 Understanding data
Topic Area 2 Managing data
Topic Area 3 How data can be accessed and managed across platforms
Topic Area 4 Legal considerations
Topic Area 5 Job roles, skills and attributes in data analytics

F201: Big Data and Machine Learning
Mandatory Unit, assessed by examination

In this unit you will learn about the challenges of managing big data and the role of artificial intelligence and machine learning in data science. Topics include:

Topic Area 1 The scope of managing big data
Topic Area 2 The Infrastructure challenges of big data
Topic Area 3 Big data, machine learning and artificial intelligence
Topic Area 4 Legal and ethical issues in data management
Topic Area 5 Environment and society

F202: Spreadsheet Data Modelling
Mandatory Unit, assessed by an assignment

In this unit you will learn the principles of data modelling with spreadsheets and the knowledge and skills required to plan, design, create, test and review a spreadsheet modelling solution that meets the needs of a specific client. Topics include:

Topic Area 1 Principles of spreadsheet modelling
Topic Area 2 Planning the design of a spreadsheet model
Topic Area 3 Creating the spreadsheet model
Topic Area 4 Delivering the outcomes
Topic Area 5 Evaluation

Studied during Year 13

F203: Relational Database Design
Optional unit, assessed by an assignment

In this unit you will learn the principles of relational database design and the knowledge and skills required to plan, design, create, test and review a relational database design solution that meets the needs of a specific client. Topics include

Topic Area 1 Relational database concepts
Topic Area 2 Plan relational database solutions
Topic Area 3 Create relational databases
Topic Area 4 Testing relational database solutions Topic Area 5 Evaluate database solutions

F204: Data and the Internet of Everything (IoE)
Optional unit, assessed by an assignment

In this unit you will learn the principles of the Internet of Everything (IoE), and the knowledge and skills required to plan, design and present an IoE solution that meets the needs of a specific client. Topics include:

Topic Area 1 IoE ecosystem
Topic Area 2 Data collection, processing and storage methods and devices
Topic Area 3 Connectivity and data transmission Topic Area 4 Human computer interfaces (HCIs)
Topic Area 5 Securing IoE devices
Topic Area 6 Documentation and audience communication

F205: Data Visulisation
Optional unit, assessed by an assignment

In this unit you will learn the principles of data visualisation, and the knowledge and skills required to plan, design, create and review a data visualisation solution that meets the needs of a specific client. Topics include:

Topic Area 1 The value and importance of data visualisation
Topic Area 2 Planning for data dashboards
Topic Area 3 Techniques for creating a data dashboard
Topic Area 4 Communicating information and interpreting data
Topic Area 5 Evaluating the effectiveness of visualisation solutions

Two of these 3 options will be studied.