

What are the aims and intentions of this curriculum?

OCR Level 3 Alternative Academic Qualification Cambridge Advanced National in IT: Data Analytics in Data Analytics (Extended Certificate) is for students aged 16-19 years old. It will develop knowledge, understanding and skills that will help prepare you for progression to undergraduate study and are relevant to the information technology sector.

Term	Topics	Knowledge and key terms	Skills developed	Assessment
Autumn 1	Unit F201 – Big data and machine learning	In this unit students will learn about the challenges of managing big data. They will also learn about data analytics, artificial intelligence (AI) and machine learning (ML). It will lead to big innovations in the future. Finally, students will learn about the legal and ethical issues in data management and how big data can be used in environmental work and social developments.	The scope of managing big data. The six characteristics (6Vs) of data. The Six steps for analysing big data. The evolution of big data. How big data is captured. The purpose, importance and use of big data analytics. Types of big data. Data preparation and cleaning techniques for data mining. Data mining techniques. Big data infrastructure. Data science and data analytics. Data analytic techniques. Big data, machine learning and artificial intelligence. Legal and ethical issues in data management. Data the environment and society. Exam Preparation: Questions to assess Performance Objectives 1, 2, and 3. PO1: these questions will require students to recall generic knowledge and understanding. PO2: these questions will require students to apply knowledge and understanding. PO3: these questions will require students to analyse and evaluate knowledge, understanding and performance in relation to the scenario. Question types:	F201 – Trial Examination Paper

			Forced choice/controlled response questions. • Short answer, closed response questions. • Extended constructed response questions with points-based marks schemes. • Extended constructed response questions with levels of response marks schemes. • One six mark and one nine mark extended constructed response question with a levels of response marks scheme. Questions relating to each Topic Area: Content will be sampled from all topic areas, with at least one question or part question relating to each topic area.	
Autumn 2	Unit F204 - Data and the Internet of Everything (IoE)	In this unit Students will learn about the IoE and how it can be used in different sectors of life. They will learn about the devices that are used to gather data including how they are powered and transmit data. Students will also learn how devices process the data and output it in a usable form. Finally, they will learn how to design an IoE product considering the devices, communication methods and processing requirements and how to present their product to stakeholders to gather feedback to help develop their idea further.	Data and the Internet of Everything (IoE). Sectors that use the IoE. The four pillars infrastructure of the IoE. Power considerations for data collection devices. Data processing. Data storage. Connectivity and data transmission. Types of connectivity. Connectivity methods.	NEA assignment F204. F201 - This unit is assessed by an exam. The exam is 1 hour and 30 minutes and has 60 marks in total. All questions in the exam are compulsory.
Spring 1	Unit F204 - Data and the Internet of Everything (IoE)	In this unit Students will learn about the IoE and how it can be used in different sectors of life. They will learn about the devices that are used to gather data including how they are powered and transmit data. Students will also learn how devices process the data and output it in a usable form. Finally, they will learn how to design an IoE product considering the devices, communication methods and processing requirements and how to present their product to stakeholders to gather feedback to help develop their idea further.	Connectivity methods. Transmission considerations. Human computer interfaces (HCIs). Outputs. Information formats. HCI Principles for IoE solutions. Connection Security. IoE legal and ethical considerations. Documentation and audience communication.	NEA assignment F204.

Spring 2	Unit F206: Data and digital marketing	In this unit students will learn the basics of digital marketing and how to create digital marketing campaigns for a specified purpose. They will learn about the different tools that can be used to create digital marketing campaigns. This will include the use of data to allow more targeted approaches to marketing campaigns. Students will learn and develop the skills to develop content for campaigns, as well as the tools and techniques used to pitch their ideas to clients. They will also review how they have worked, developing the ability to be reflective about the approach they took and how they could improve their approach in the future.	Digital marketing fundamentals. Role of digital marketing. Digital marketing tools. Marketing strategies and the digital marketing lifecycle. Data driven digital marketing. Data collection. Data analysis. Data use.	NEA assignment F206.
Summer 1	Unit F206: Data and digital marketing	In this unit students will learn the basics of digital marketing and how to create digital marketing campaigns for a specified purpose. They will learn about the different tools that can be used to create digital marketing campaigns. This will include the use of data to allow more targeted approaches to marketing campaigns. Students will learn and develop the skills to develop content for campaigns, as well as the tools and techniques used to pitch their ideas to clients. They will also review how they have worked, developing the ability to be reflective about the approach they took and how they could improve their approach in the future.	Planning digital marketing campaigns. Planning the marketing mix. Digital marketing funnel. Creating content for digital marketing campaigns. Communicating with stakeholders. Reflection and evaluation of working processes.	NEA assignment F206.