VCE UNITS INFORMATION

VCE Computing: Informatics Units 3 and 4

CONTENT

Unit 3

Students consider data and how it is acquired, managed, manipulated and interpreted to meet a range of needs. An investigation in the way organisations acquire data using interactive online solutions, such as websites and applications (apps) is undertaken, and consider how users interact with these solutions when conducting online transactions. They examine how relational database management systems (RDBMS) store and manipulate data typically acquired this way. Students use software to create user flow diagrams that depict how users interact with online solutions, and acquire and apply knowledge and skills in the use of an RDBMS to create a solution. Students develop an understanding of the power and risks of using complex data as a basis for decision making.

During the second part of the Unit 3 course, students complete the first part of their major project. They frame a hypothesis and then select, acquire and organise data from multiple data sets to confirm or refute this hypothesis. This data is manipulated using tools such as spreadsheets or databases to help analyse and interpret it so that students can form a conclusion regarding their hypothesis. Students take an organised approach to problem solving by preparing project plans and monitoring the progress of the project. The second part of the project is completed in Unit 4.

Unit 4

Students will focus on strategies and techniques for manipulating, managing and securing data and information to meet a range of needs. Students begin this unit by drawing on the analysis and conclusion of their hypothesis determined in Unit 3, Outcome 2, and then design, develop and evaluate a multimodal, online solution that effectively communicates the conclusion and findings. The evaluation focuses on the effectiveness of the solution in communicating the conclusion and the reasonableness of the findings. Students use their project plan to monitor their progress and assess the effectiveness of their plan and adjustments in managing the project.

Students will complete this unit by exploring how different organisations manage the storage and disposal of data and information to minimise threats to the integrity and security of data and information and to optimise the handling of information.

OUTCOMES

Unit 3

- Students should be able to design a solution, develop it using a relational database management system, and diagrammatically represent how users interact with an online solution when supplying data for a transaction
- Students should be able to use a range of appropriate techniques and processes to acquire, prepare, manipulate and interpret complex data to confirm or refute a hypothesis, and formulate a project plan to manage progress

Unit 4

- Students should be able to design, develop and evaluate a multimodal online solution that confirms or refutes a hypothesis, and assess the effectiveness of the project plan in managing progress
- Student should be able to compare and contrast the effectiveness of information management strategies used by two organisations to manage the storage and disposal of data and information, and recommend improvements to their current practices