

## 8. Year 11 Subjects 2011 (Information Technology)

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### VCE Information Technology Units 1&2

VCE Information Technology focuses on the processing of data and the management of information and information systems. The rapid pace of development in information and communications technology (ICT) is having a major influence on many aspects of society. Not only does ICT provide the capacity to change how tasks and activities are undertaken, but it also creates new opportunities in work, education, entertainment and society.

While it is important that students extend their use of ICT as a learning and personal tool, the study of VCE Information Technology encompasses information systems and how people interact with information technology to create structured information and to connect with others to exchange information. It encompasses the theoretical foundations of computation and techniques for writing programs and developing solutions. It also focuses on how the needs of individuals, organisations, communities and society are met through the combination of ICT and meaningful information.

VCE Information Technology equips students with appropriate knowledge and skills to use ICT responsibly and to make informed personal and workplace choices about developments in this exciting field. Students are encouraged to orient themselves towards the future, with an awareness of the technical and societal implications of ICT.

VCE Information Technology provides pathways to further studies in IT and to careers in ICT-based areas. It also prepares students for programs that require an IT-related subject or for a range of careers that require efficient and effective use of ICT.

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### VCE Information Technology Units 1&2 (Cont...)

#### Unit One – IT In Action

##### *Areas of Study:*

This unit focuses on how individuals and organisations use, and can be affected by, information and communications technology (ICT) in their daily lives. In Areas of Study 1 and 3, students acquire and apply a range of knowledge and skills to manipulate different data types such as numeric, text, sound and images (still and moving) to create solutions that can be used to persuade, educate, inform and entertain. In Area of Study 3, students also explore how their lives are affected by ICT, and consider strategies for managing how ICT is applied. In Area of Study 2, students examine how networked information systems allow data to be exchanged locally and within a global environment, and explore how mobile devices, such as phones, are used within these networks.

##### *Assessment:*

There are three Learning Outcomes to be completed in Unit One:

- Outcome 1 - Students should be able to select data from data sets, design solutions and use a range of spreadsheet functions to develop solutions that meet specific purposes.
- Outcome 2 - Students should be able to recommend a networked information system for a specific use and explain possible security threats to this networked information system.
- Outcome 3 - Students should be able to contribute collaboratively to the design and development of a website that presents an analysis of a contemporary ICT issue and substantiates the team's point of view.

##### *Assessment Break-Down:*

Assessment tasks for this unit will include some or all of the following:

- using ICT tools and techniques, produce a solution in response to an identified need
- visual presentations such as multimedia presentations
- oral presentations supported by a visual presentation
- a written report using ICT
- a test.

There is an end-of-Semester Examination.

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### VCE Information Technology Units 1&2 (Cont...)

#### Unit Two – IT Pathways

##### *Areas of Study:*

This unit focuses on how individuals and organisations use ICT to meet a range of purposes. Students apply a range of knowledge and skills to create solutions, including those that have been produced using a programming or scripting language, to meet users' needs. In this unit, students apply all stages of the problem-solving methodology when creating solutions.

##### *Assessments:*

There are three Learning Outcomes to be completed in Unit Two:

- Outcome 1 - Students should be able to apply the problem-solving methodology and use appropriate software tools to create data visualisations that meet users' needs.
- Outcome 2 - Students should be able to design, and develop using a programming or scripting language, limited solutions, record the learning progress electronically, and explain possible career pathways that require the use of programming or scripting skills.
- Outcome 3 - Students should be able to work collaboratively and apply the problem solving methodology to create an ICT solution, taking into account client feedback.

##### *Assessment Break-Down:*

Assessment tasks for this unit will include some or all of the following:

- using ICT tools and techniques, produce a solution in response to an identified need
- visual presentations such as multimedia presentations
- oral presentations supported by a visual presentation
- an electronic learning journal, such as a blog, to record learning progress
- a written report using ICT
- a test.

There is an end-of-Semester Examination.