# IT applications – Support materials

## *Software tools and functions*

In the reaccredited VCE Information Technology Study Design, students studying IT applications (Units 3 and 4) are required to use at least three software tools when solving information problems. Additional tools are required to develop a project management plan and a visual representation.

In Unit 3, Outcome 1 students use database management software to create a relational database. In addition they must use a software tool to create a project management report that includes the management plan and the tracking of progress. Appropriate software types include, for example, project management, spreadsheets, word processing.

For Outcome 2, students use web authoring software to create a prototype website. Additional software, such as image editing, can be used to support the development of the prototype.

In Unit 4, Outcome 1 students use spreadsheet software to create a solution and information product. In addition they use web authoring or multimedia authoring software to create on-screen user documentation and a software tool that is capable of visually representing the decisions made and actions taken when problem solving.

- Refer to the VELS website at http://vels.vcaa.vic.edu.au/essential/interdisciplinary/ict/index.html for further information on ICT for visualising thinking.

The assessment tasks set by teachers should be realistic and allow discrimination between student performances. When designing assessment tasks for those outcomes that require the use of information and communications technology to solve information problems, the functions listed below should be used as a guide. These functions are premised on the basis that students entering Unit 3 already possess skills in saving, printing, editing and managing files.

From the list provided, students should aim to select and use functions that effectively and efficiently product solutions and information products. Note that this list is not exhaustive; learning and assessment does not have to be confined to the functions listed.

## *Unit 3*

In their learning, students are expected to execute each listed function for a software tool; however, for the assessment tasks, they are only required to demonstrate the majority of functions.

Students should be able to demonstrate skills with the following software and functions for Outcome 1.

### Database management software

- create tables
- create relationships between tables
- import/export of data
- use a range of data types
- format fields
- electronic validation
- create forms
- create and edit queries
- use of calculated fields
- sort records or index on different fields
- macros
- create and edit a range of formatted reports.

### Project management

The software tool must be able to show:

- milestones
- tasks
- duration of tasks
- dependent tasks
- resources
- tracking of progress
- critical path.

Students should be able to demonstrate skills with the following software and functions for Outcome 2.

### Web authoring

- Cascading Style Sheets
- edit and format text
- links (relative and absolute links, internal and external links)
- navigation
- screen formats such as tables/frames/shared borders

- tagging (metadata tags, alt tags)
- forms
- import images/sound.

## *Unit 4*

In their learning, students are expected to execute each listed function for a software tool; however, for the assessment tasks, they are only required to demonstrate the majority of functions.

Students should be able to demonstrate skills with the following software and functions for Outcome 1.

### Spreadsheets

- lookup tables
- conditional formatting
- conditional statements
- cell protection
- graphs
- insert notes/comments
- macros
- relative and absolute cell references
- naming a range
- electronic validation
- sheet referencing
- formatting/layout.

### Web authoring and multimedia authoring

- Cascading Style Sheets
- create, edit and format text
- create, edit and format images/sound
- links (relative and absolute links, internal and external links)
- navigation
- screen formats such as tables/frames/shared borders
- tagging (metadata tags, alt tags)
- forms.

### Visual representation

The software tool must be able to show:

- decisions made
- actions taken
- relationships/connections
- images/objects
- comments/notes.