**Year 12 Information Technology Applications :: 2011 – 2014**

Semester: 1 - Year Level: 12 Course Outline.

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| **Cycle.** | **Learning Focus.** | **Learning Activities/Resources** | **Assessment.** |
| 1 | Area of Study 1 - Web Authoring SoftwareApplication : Adobe-Dreamweaver | Teacher generated Adobe-Dreamweaver folio pieces. Location RSB FoldersTextbook - Potts, C et al 2010, IT Applications VCE Units 3 & 4, 3rd edn, Thomson Nelson, MelbourneChapter 1 - NetworksKey knowledgeThis knowledge includes:- types, purposes and functionality of websites that support information exchange within onlinecommunities- types of networks and the functions of their key hardware and software components- capabilities of wired and wireless communications technology to support local and remotecommunications- hardware and software requirements for setting up websites on servers, including operating system,web server software, protocols, security and proxy servers- stages of the problem-solving methodology- types and purposes of online communities including social, work-based, project/interest-based thatsupport the purposes of collaboration, knowledge sharing and collective identity- needs of online community members that affect the nature of their websites, including accessrequirements (open or closed)- non-technical constraints on website solutions, including privacy, copyright and human rightsrequirements and social online protocols- design elements that influence the functionality and appearance of websites- design tools for representing website solutions- functions of web authoring software used to manipulate data- manual and electronic validation techniques- formats and conventions applied to websites in order to improve their effectiveness for intendedusers- methods and techniques for testing that the solutions perform as intended. | Adobe-Dreamweaver FolioKey Knowledge - Theory |

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| 2 | Area of Study 1 - Web Authoring SoftwareApplication : Adobe-Dreamweaver | Teacher generated Adobe-Dreamweaver folio pieces. Location RSB FoldersTextbook - Potts, C et al 2010, IT Applications VCE Units 3 & 4, 3rd edn, Thomson Nelson, MelbourneChapter 2 - Online CommunitiesKey knowledgeThis knowledge includes:- reasons why organisations acquire data via websites, including 24-hour customer access, improvedefficiencies through direct data entry by customers, improvements in effectiveness and access toglobal market economies- reasons why individuals and organisations supply data via websites, including purchasing of goodsand services, voting, social networking and exchanging information- techniques used by organisations to acquire data on websites and reasons for their choice- techniques used by organisations to protect the rights of individuals and organisations supplyingdata, including security protocols and stating policies regarding privacy, shipping and returns- stages of the problem-solving methodology- purposes and structure of an RDBMS- naming conventions to support efficient use of an RDBMS- data types, including text (string), number, date/time, Boolean (true/false)- data formats used for display, including fixed decimal places, various date formats, 12 hour/24 hour time, true/false, yes/no- a methodology for creating an RDBMS structure: identifying tables and fields; normalising tables,defining data types and field sizes, identifying primary key and foreign key fields- ways in which normalisation can ensure the integrity of data in an RDBMS- design tools for describing data types, and the value of entity relationship (ER) diagrams forrepresenting the structure of an RDBMS- design tools for representing solutions- functions and techniques within an RDBMS to efficiently and effectively manipulate and validatedata- functions and techniques to retrieve required information through searching, sorting, filtering andquerying data sets- methods and techniques for testing that the solutions perform as intended. | Adobe-Dreamweaver FolioKey Knowledge -Theory |

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| 3 | Area of Study 1 - Web Authoring SoftwarePreparation for Unit 3 - Outcome 1 | Key skillsThese skills include the ability to:- identify types of websites suitable for different online communities- analyse online communities in order to identify solution requirements and technical and nontechnicalconstraints- select and apply appropriate design tools to represent the functionality and appearance of prototypewebsites- use web authoring software and select and apply suitable functions, methods, formats, conventions,techniques and design elements to develop prototype websites that operate as intended- justify websites that suit the needs of different online communities- explain the technical requirements of the networks hosting the websites. | Theory - Key Skills |
| 4 | Area of Study 1 - Web Authoring SoftwareUnit 3 - Outcome 1 | Teacher generated case study, criteria sheet, authentication sheet. Location: RSB Folders | Unit 3 - Outcome 1 |

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| 5 | Area of Study 2 - Organisations and data managementApplication : MS-Office (Access) | Teacher generated MS-Office (Access) folio pieces. Location RSB FoldersTextbook - Potts, C et al 2010, IT Applications VCE Units 3 & 4, 3rd edn, Thomson Nelson, MelbourneChapter 3 - Data Management ToolsKey KnowledgeThis knowledge includes:- reasons why organisations acquire data via websites, including 24-hour customer access, improvedefficiencies through direct data entry by customers, improvements in effectiveness and access toglobal market economies- reasons why individuals and organisations supply data via websites, including purchasing of goodsand services, voting, social networking and exchanging information- techniques used by organisations to acquire data on websites and reasons for their choice- techniques used by organisations to protect the rights of individuals and organisations supplyingdata, including security protocols and stating policies regarding privacy, shipping and returns- stages of the problem-solving methodology- purposes and structure of an RDBMS- naming conventions to support efficient use of an RDBMS- data types, including text (string), number, date/time, Boolean (true/false)- data formats used for display, including fixed decimal places, various date formats, 12 hour/24 hour time, true/false, yes/no- a methodology for creating an RDBMS structure: identifying tables and fields; normalising tables,defining data types and field sizes, identifying primary key and foreign key fields- ways in which normalisation can ensure the integrity of data in an RDBMS- design tools for describing data types, and the value of entity relationship (ER) diagrams forrepresenting the structure of an RDBMS- design tools for representing solutions- functions and techniques within an RDBMS to efficiently and effectively manipulate and validatedata- functions and techniques to retrieve required information through searching, sorting, filtering andquerying data sets- methods and techniques for testing that the solutions perform as intended.Chapter 5 - Developing a Solution Using Database Software | MS-Office (Access) FolioKey Knowledge - Theory |

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| 6 | Area of Study 2 - Organisations and data managementPreparation for Unit 3 - Outcome 2 | Key skillsThese skills include the ability to:- explain reasons why data is acquired and supplied via websites- propose techniques for acquiring data via websites and for protecting the rights of dataproviders- select and apply design tools and techniques for describing data types and representing thefunctionality of solutions- use RDBMS functions and techniques to manipulate and validate data- apply functions and techniques to construct queries that efficiently retrieve required information- select and apply testing methods and techniques to confirm whether the solutions operate asintended. | Theory - Key Skills |
| 7 | Area of Study 2 - Organisations and data managementUnit 3 - Outcome 2 | Teacher generated case study, criteria sheet, authentication sheet. Location: RSB Folders | Unit 3 - Outcome 2 |
| 8 | Revision of Unit 3 | Textbook - Potts, C et al 2010, IT Applications VCE Units 3 & 4, 3rd edn, Thomson Nelson, Melbourne | Online Quizes, What you should know, Apply your knowledge |

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| 9 | [Unit 4]Area of Study 1 - Spreadsheet software & Web authoring or multimedia authoring softwareApplication : MS-Office (Excel) | Teacher generated MS-Office (Excel) folio pieces. Location RSB FoldersTextbook - Potts, C et al 2010, IT Applications VCE Units 3 & 4, 3rd edn, Thomson Nelson, MelbourneChapter 4 - Organisations and Information NeedsKey knowledgeThis knowledge includes:- types of goals of organisations and information systems- role of components of information systems- characteristics of strategic, tactical and operational decisions made in organisations- stages of the problem-solving methodology- problem-solving activities relating to the analysis of ongoing information problems- design tools for representing the functionality and appearance of solutions- criteria for evaluating the efficiency and effectiveness of solutions to ongoing informationproblems- functions, techniques and procedures for efficiently and effectively manipulating data usingan RDBMS or spreadsheet software, including the application of formats and conventions, thevalidation of data and the management of files- techniques for testing solutions and user acceptance- strategies for evaluating the extent to which solutions meet organisations%u2019 needs- content and types of onscreen user documentation, including quick start guide, tutorial, contentsensitive help and manual- characteristics of efficient and effective user interfaces and information architecture- functions, techniques and procedures for efficiently and effectively manipulating data using webauthoring or multimedia authoring software. | MS-Office (Excel) FolioKey Knowledge - Theory |

Semester: 2 - Year Level: 12 Course Outline.

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| **Cycle.** | **Learning Focus.** | **Learning Activities/Resources** | **Assessment.** |
| 1 | Area of Study 1 - Spreadsheet software & Web authoring or multimedia authoring softwareApplication : MS-Office (Excel) | Teacher generated MS-Office (Excel) folio pieces. Location RSB FoldersTextbook - Potts, C et al 2010, IT Applications VCE Units 3 & 4, 3rd edn, Thomson Nelson, MelbourneChapter 6 - Developing a Solution Using Spreadsheet Software | MS-Office (Excel) FolioKey Knowledge - Theory |
| 2 | Area of Study 1 - Spreadsheet software & Web authoring or multimedia authoring softwarePreparation for Unit 4 - Outcome 1 | Key skillsThese skills include the ability to:- identify how information systems enable the creation of information needed by organisations- analyse current practices in order to identify the requirements, constraints and scope of solutions- select and apply appropriate design tools to represent solutions- determine criteria to evaluate the quality of solutions- use an RDBMS or spreadsheet software and apply suitable functions, formats, conventions anddata validation techniques to develop solutions- use web authoring or multimedia authoring software to create onscreen user documentation- select and apply testing methods and techniques to confirm whether the solutions operate asintended- propose strategies and apply criteria to evaluate the extent to which solutions and user documentationmeet the information needs of organisations. | Theory - Key Skills |
| 3 | Area of Study 1 - Spreadsheet software & Web authoring or multimedia authoring softwareUnit 4 - Outcome 1 | Teacher generated case study, criteria sheet, authentication sheet. Location: RSB Folders | Unit 4 - Outcome 1 |

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| 4 | Area of Study 2 - Information managementUnit 4 - Outcome 2 | Textbook - Potts, C et al 2010, IT Applications VCE Units 3 & 4, 3rd edn, Thomson Nelson, MelbourneChapter 7 - Information ManagementKey knowledgeThis knowledge includes:- reasons why data and information are important to organisations- key legislation that affects how organisations control the storage, communication and disposal oftheir data and information- threats to the integrity and security of data and information stored, communicated and disposedof by organisations- procedures and equipment for preventing unauthorised access to data and information and forminimising the loss of data accessed by authorised and unauthorised users- the advantages and disadvantages of using cloud computing for storing, communicating anddisposing of data and information- ethical dilemmas arising from information management strategies used by organisations- strategies for resolving legal, ethical and social tensions between stakeholders arising frominformation management strategies- possible consequences for organisations of the violation of, or failure to follow, securitymeasures- disaster recovery strategies and the testing of these strategies- criteria for evaluating the effectiveness of information management strategies. | Key Knowledge - Theory |
| 5 | Area of Study 2 - Information managementPreparation for Unit 4 - Outcome 2 | Textbook - Potts, C et al 2010, IT Applications VCE Units 3 & 4, 3rd edn, Thomson Nelson, MelbourneChapter 8 - Security and Ethical ConsiderationsKey skillsThese skills include the ability to:- explain why particular information management strategies are used by organisations to monitorand control their data and information- discuss the nature of particular threats to the integrity and security of data and information- discuss possible consequences of ineffective information management strategies- propose strategies to minimise tensions between stakeholders- propose and apply criteria to evaluate the effectiveness of information management strategies- recommend information management strategies to improve current practices. | Key Skills - Theory |
| 6 | Area of Study 2 - Information managementUnit 4 - Outcome 2 | Teacher generated case study, criteria sheet, authentication sheet. Location: RSB Folders | Unit 4 - Outcome 2 |
| 7 | Revision of Unit 4Exam Preparation | Textbook - Potts, C et al 2010, IT Applications VCE Units 3 & 4, 3rd edn, Thomson Nelson, Melbourne | Online Quizes, What you should know, Apply your knowledge |