Stage 5 Information and Software Technology

Unit 2: Digital media (Option 4)

Title: MYFM radio station

Duration: 15 weeks **Sequence:** Week 6 Term 2 – Week 10 Term 3

Project overview	**MYFM radio station** Present a fifteen minute radio segment for your FM station. Include: • original music compilation • converted music file to mp3 format • pre-record news broadcast • audio advertisement. Present and publish a poster advertising the radio station. Include: • mediated images using *Photoshop* etc.	
Outcomes	5.2.1, 5.2.2, 5.2.3, 5.3.1, 5.3.2, 5.5.1, 5.5.2, 5.5.3, 5.4.1, 5.1.1	
Assessment outcomes	A student: 5.3.2 acquires and manipulates data and information in an ethical manner 5.5.1 applies collaborative work practices to complete tasks 5.1.1 selects and justifies the application of appropriate software programs to a range of tasks.	
Core	**Students learn about:**	**Students learn to:**
	Design, produce and evaluate **Evaluation criteria** • functionality of solution • quality of information such as: – accuracy – relevance – integrity – timeliness • ethics • environment	• establish criteria for the evaluation of solutions • evaluate solutions using established criteria

Core	Students learn about:	Students learn to:
	Methods of evaluation • individual • groups such as peer, end user, specific target group	• use feedback evaluation in order to modify solutions • reflect upon and document feedback
	Past, current and emerging technologies **Environmental considerations** such as • disposal of obsolete technologies • recycling	• assess the effects of past, current and emerging information and software technologies on the individual, society and the environment in the context of the chosen options.
	Data handling **Data forms** • analogue • digital	• convert data between analogue and digital forms
	Hardware **Hardware solutions** • Developing hardware solutions: – defining the problem – designing a solution – evaluating a solution **Troubleshooting** • Working through hardware problems	• apply an approach to develop hardware solutions • apply set criteria to choose the most appropriate hardware solution • select and use hardware to solve a problem • evaluate the suitability of hardware devices for particular solutions • identify simple operating faults using a computer manual • perform safe troubleshooting procedures when dealing with hardware problems
	Issues **Legal issues** such as • copyright and/or licensing • piracy • intellectual property • security and protection including viruses • legislation such as Anti-discrimination, Equal Employment Opportunity, Occupational Health and Safety	• examine legal issues as they apply to the development of information and software technology solutions

Core	**Students learn about:**	**Students learn to:**
	Ethical issues such as • code of practice and conduct • privacy and security • inappropriate use including hacking • accuracy, validity and bias of data **Social issues such as** • the changing nature of work and enterprise such as employment, telecommuting, virtual office, video conferencing • equity, access and control for all users with respect to gender, disability, and culture including Aboriginal and Indigenous	• research and report on ethical issues relating to the development of information and software technology solutions • identify the ethical responsibilities of software users • examine and judge the accuracy, validity and bias of data and information • contrast the nature of work in the information and software technology industry, past and present • examine and discuss equity and cultural inclusiveness in the information and software technology industry • explore the impact of cybercultures on perceptions of gender
	Software **Features and elements of a graphical user interface (GUI)** such as • radio buttons, list boxes • borders and white space • instructions to the user • inclusive design factors	• evaluate the effectiveness of GUI features and elements for a specific purpose

Option 4: Digital media	**The purpose of digital media** such as • e-music • digital newspaper • interactive TV • games	• define digital media • assess the effectiveness of a range of digital media products
	Types of digital media products such as • desktop publishing magazine, newspaper • graphical design • audio sequences • musical compositions • animation sequences • video production	• describe a range of digital media • select and use appropriate file formats for the digital media product
	Students learn about:	**Students learn to:**
	Data types for digital media products such as • used in specific digital media products **Manipulation techniques** such as • cropping, rendering, special effects, time coding, sampling • morphing, tweening **Digitisation process of data types** such as • frame grabbing • scanning • bit mapping • optical character recognition (OCR)	• recognise and select data types used in digital media products • produce samples of work for a range of data types • describe how date types combine to produce and enhance a digital media product • manipulate data types for specific digital media products • explain the digitisation process for a selected data type • digitise selected data types using appropriate hardware