Rutherford Technology High School
Information and Software Technology
2005 – 2006 Course outline

	Unit 1 – Database design (Option 3) Title: **My Business** Duration: 15 weeks Sequence: Term 1 – Week 5 Term 2	Unit 2 – Digital media (Option 4) Title: **MyFM radio station** Duration: 15 weeks Sequence: Week 6 Term 2 – Week 10 Term 3	Unit 3 – The Internet and web site development (Option 5) Title: **Holiday Resort** Duration: 15 weeks Sequence: Week 1 Term 4 – Week 5 Term 1
Project overview	**The shop** As the manager of a business you wish to implement software solutions that will allow you to communicate, track and promote the activities of your business to your clients and employees.	**MYFM radio station** Present a fifteen minute radio segment for your FM station. Include: • original music compilation • converted music file to mp3 format • pre-recorded news broadcast • audio advertisement. Present and publish a poster advertising the radio station. Include: • mediated images using *Photoshop*, etc.	**Holiday resort** Create and publish a web site for a holiday resort of your choosing.
Outcomes	5.3.2, 5.1.2, 5.3.1, 5.5.3, 5.2.1, 5.2.2, 5.2.3, 5.1.1	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	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: 5.3.1 justifies responsible practices and ethical use of information and software technology 5.2.1 describes and applies problem-solving processes when creating solutions 5.2.2 designs, produces and evaluates appropriate solutions to a range of challenging problems	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	A student: 5.2.2 designs, produces and evaluates appropriate solutions to a range of challenging problems 5.5.3 describes and compares key roles and responsibilities of people in the field of information and software technology. 5.4.1 analyses the effects of past, current and emerging information and software technologies on the individual and society
Core content overview	**Data handling** Data and information Data coding Data sources Data security **Hardware** Classification	**Design, produce and evaluate** Evaluation criteria Methods of evaluation **Past, current and emerging technologies** Environmental considerations **Data handling** Data forms	**Design, produce and evaluate** Defining and analysing the problem Designing possible solutions Producing solutions **Past, current and emerging technologies** The impact of past, current and emerging information and software technologies on the individual and society including different cultural

groups such as Aboriginal and Indigenous

Issues Industrial issues	**Hardware** Hardware solutions Troubleshooting	**Data handling** Data types Data transmission types Data compression techniques Data security
People Roles and responsibilities	**Issues** Legal issues Ethical issues Social issues	
Software The purpose of a software system		
Interface design	**Software** Features and elements of a graphical user interface (GUI)	
Features and elements of a graphical user interface (GUI)		

Option 3
Database design
Database development
Collecting, organising and storing data
Methods of processing and analysing
Methods of presenting information
Integration
Project development
Additional content:
      expert systems
	Option 4
	Digital media
	The purpose of digital media
	Types of digital media products
	Data types for digital media products
	Manipulation techniques
	Digitisation process of data types
		Option 5
		The Internet and web site development
		The Internet
		Historical perspective of the Internet
		Intranet
		Uses of the Internet
		Internet software
		Types of protocols
		World Wide Web (www)
		Control of access to information on the web
		Web site development
		Features of a web site
		Project development
		Additional content:
		      interactive web based projects
		      collaborative projects

	Unit 4 – Authoring and multimedia (Option 2) Title: **Personal Profile** Duration: 15 weeks Sequence: Week 6 Term 1 – Week 10 Term 2	Unit 5 – Authoring and multimedia (Option 2) Title: **Major project** Duration: 15 weeks Sequence: Week 1 Term 3 – Week 5 Term 4
Project overview	During week 6 Term 2 you will be presenting to a community member, a teacher and a year 9 student reflections on your achievements, learning and goals you have set and experienced over Stages 4 and 5. Publish a multimedia presentation profiling your sporting, personal and academic achievements during Stages 4 and 5.	Individual negotiated major project work
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, 5.1.2, 5.1.1	5.2.1, 5.2.2, 5.2.3, 5.3.1, 5.3.2, 5.5.1, 5.5.2 5.2.3
Assessment outcomes	A student: 5.2.3 critically analyses decision-making processes in a range of information and software solutions 5.3.2 acquires and manipulates data and information in an ethical manner 5.5.2 communicates ideas, processes and solutions to a targeted audience 5.1.2 selects, maintains and appropriately uses hardware for a range of tasks	A student: 5.2.1 describes and applies problem-solving processes when creating solutions 5.2.2 designs, produces and evaluates appropriate solutions to a range of challenging problems 5.2.3 critically analyses decision-making processes in a range of information and software solutions 5.5.2 communicates ideas, processes and solutions to a targeted audience
Core component	**Design, produce and evaluate** Management Communication techniques Collaboration and group work **Data handling** Data storage and function **Hardware** Functions that hardware perform Hardware components Microprocessors Care and maintenance of hardware systems **Software** Types and examples of software Factors affecting hardware requirements	**Design, produce and evaluate** Defining and analysing the problem Designing possible solutions using techniques Producing solutions Evaluation criteria Methods of evaluation Management Communication techniques Collaboration and group work **People** Careers in information and software technology

Features and elements of the GUI **People** **Option 2** **Authoring and multimedia** Multimedia products Data types Authoring software systems	**Option 2** **Authoring and multimedia** Project development Additional content: animation