Gosford High School
Information Processes and Technology – HSC Course 2016
Assessment Task

Module / Unit: Major Project (Developing an Information System)

Task Number: 3 **Weighting**: 30% **Date / Timing:** Term 2 Assessment Week, 2016

Outcomes to be assessed (syllabus outcomes being assessed by the task)

H1.1 Applies and explains an understanding of the nature and function of information technologies to a specific practical situation
H2.1 Analyses and describes a system in terms of the information processes involved.
H2.2 Develops solutions for an identified need which address all of the information processes.
H3.1 Evaluates the effect of information systems on the individual, society and the environment.
H5.1 Justifies the selection and use of appropriate resources and tools to effectively develop and manage projects
H5.2 assesses the ethical implications of selecting and using specific resources and tools, recommends and justifies the choices
H6.1 Analyses situations, identifies needs, proposes and then develops solutions
H6.2 Selects, justifies and applies methodical approaches to planning, designing or implementing solutions
H7.1 Implements effective management techniques.
H7.2 Uses methods to thoroughly document the development of individual and/or group projects.

Introduction
Information systems arise out of problems, needs and opportunities that involve people and data. The development and implementation of an effective information system requires the combination of a broad range of knowledge and skills, including a firm grasp of the information processes, the creativity to construct a functional and aesthetically pleasing solution to a poorly defined problem, and a command of numerous project management techniques.

Task Description and instructions
You are to create information system of your choosing incorporating a variety of media. The information system may be designed for a mass audience or specific target audience and must fit into one (or more) of the following categories:

- Education and training
- Leisure and entertainment
- Information
- Virtual reality and simulations

Task requirements and allocation of marks

The project will be assessed across the five stages of the traditional system development approach (waterfall model) as outlined on the following pages.

Marks will be awarded for:

- Original and creative use of appropriate software
- Demonstration of competence in the learning outcomes listed above
- Balance between scope and depth in the completed product
- Depth and clarity of project documentation

Stage 1 (HSC Assessment task 1) Planning and Prototyping – 20% (Due: Term 4, 2015 – Assessment Week)
Stage 2 (HSC Assessment task 3) Implementing and Testing – 30% (Due: Term 2, 2016 – Assessment Week)

NB: Students should frequently refer to the IPT course specification document when completing this project.

Major Project - Stage 2 (Due: Term 2, Assessment Week, 2015)

***Formal progress meetings with teacher to be conducted in 2015:**

- **Term 1, week 10**
- **Term 2, week 6**

This stage involves the transformation of the specifications into appropriate hardware, software and information processes. In other words, it is the creation of the planned system.

Implementing

- A Beta prototype: this version of the multimedia system must be feature complete and should represent an increase in sophistication and complexity from the Alpha. The focus of the Beta should be on providing an intuitive and helpful user experience for those who will use the system. The most likely testers for the Beta are a selection of users from the system's intended audience

For this section you must include for marking the completed project including:

- Multimedia:
  - video and/or animated sequence(s)
  - original graphical elements
  - aesthetically pleasing screen design
  - non-linear navigation structure
  - audio (music, effects etc.)

- Additional features to be graded will address the general functionality of the system with respect to its intended purpose. This may include but is not limited to:
  - scope and quality of information presented
  - intuitive functionality
  - engaging user experience
  - interactivity

  N.B Ensure that the timing of each element is appropriate.

Testing, evaluating and maintaining (20 marks)

For this section, the performance of the system is tested and then evaluated. You must include:

- Methods of testing conducted and reason why:
  - volume data
  - simulated data
  - live data
- Evaluation of the information system by comparing it to the initial aims and objectives outlined in stage 1
- Methods used in maintaining the system.

Communication

- Agenda for progress meeting with teacher (work completed to date, problems encountered, questions etc.)
- Minutes of progress meeting with teacher
- Personal log book

Major Project Stage 2 – Marking Guide

Implementing

Beta Prototype

Criteria	Mark	
A working, polished prototype that clearly demonstrates all of the essential functional features of the proposed information system.	13-15	
A working, polished prototype that demonstrates some of the essential functional features of the proposed information system.	9-12	
A functional prototype that demonstrates a part of the proposed system.	5-8	
An attempted prototype that is non-functional yet still demonstrates some of the proposed project features.	1-4	

Multimedia

Video and/or animated sequence(s)

Criteria	Mark	
Original video and/or animated sequences have been carefully designed and edited. Included sequences provide a functional enhancement to the multimedia system.	7-8	
Original video and/or animated sequences have been included, providing a functional enhancement to the multimedia system.	5-6	
Video and/or animated sequences have been included, complementing the overall multimedia system	3-4	
Minimal video or animated sequences present in the multimedia system.	1-2	

Original graphical elements

Criteria	Mark	
Original graphics are featured throughout the multimedia system. Graphics incorporate effective design techniques, are visually appealing and enhance the overall product.	7-8	
Various original graphics have been developed and included in the multimedia system, enhancing the overall product	5-6	
Some original graphics have been developed and included in the multimedia system	3-4	
Graphics included in the multimedia system are not original	1-2	

Aesthetically pleasing screen design

Criteria	Mark	
Screen design is aesthetically pleasing, incorporating good design practices including: use of white space, logical grouping and placement of screen elements, effective and appropriate use of colour and graphics.	7-8	
Screen design is aesthetically pleasing, incorporating good design practices including: use of white space AND/OR logical grouping and placement of screen elements AND/OR effective and appropriate use of colour and graphics.	5-6	
Screen design has incorporated some good design practices.	3-4	
Minimal effort and consideration has gone into the screen design	1-2	

A non-linear navigation structure

Criteria	Mark	
Navigation structure is presented in a logical fashion, incorporates effective design techniques and is fully functional. All elements of the multimedia system can be accessed easily from a central location	7-8	
Navigation structure is presented in a logical fashion, incorporates effective design techniques and is semi-functional. All elements of the multimedia system can be accessed easily from a central location	5-6	
Navigation structure is presented in a logical fashion, incorporates effective design techniques and is semi-functional. Some parts of the multimedia system cannot be easily navigated to.	3-4	
Navigation structure is non-intuitive and/or is predominately linear in nature	1-2	

Audio (music, effects etc.)

Criteria	Mark	
Included audio is unobtrusive and enhances the overall product, is of a high quality and is free of background noise. Audio (including background music and any sound effects) can be disabled/enabled by the user of the system at any time.	7-8	
Included audio is unobtrusive and enhances the overall product, is of a high quality and is free of background noise. Audio (including background music and any sound effects) can NOT be disabled/enabled by the user of the system	5-6	
Included audio detracts from the overall product AND/OR is of a low quality. Audio can NOT be disabled/enabled by the user of the system	3-4	
Minimal audio included in the multimedia system. Audio can NOT be disabled/enabled by the user of the system	1-2	

Additional features

Scope and Quality of Information

Criteria	Mark	
Information system has substantial scope and information presented is of a high quality. Completed project demonstrates a comprehensive understanding of the specific area of multimedia.	8-10	
Information system has good scope and information presented is of a high quality. Completed project demonstrates a good understanding of the specific area of multimedia.	5-7	
Information system has limited scope and minimal information. Completed project demonstrates a limited understanding of the specific area of multimedia.	1-4	

Intuitive Functionality

Criteria	Mark	
All features of the Information system are easily accessible. On screen and alternative help documentation is available at all times while using the system. Completed project demonstrates a comprehensive understanding of interface design principles.	8-10	
Most features of the information system are easily accessible while the system is in use. Project demonstrates a good understanding of interface design.	5-7	
Help documentation is not available or is difficult to access. Information system is difficult to use and does not follow standard conventions.	1-4	

Interactivity & User Experience

Criteria	Mark	
Completed project provides an engaging user experience through the use of complex interactive elements found throughout the information system.	8-10	
Completed project provides a good user experience through the use of interactive elements.	5-7	
Information system provides limited interactivity and does not effectively engage the user.	1-4	

Use of software and technology

Criteria	Mark	
Completed project demonstrates advanced and comprehensive use of multimedia software and related technology	4-5	
Completed project demonstrates good use of multimedia software and related technology	2-3	
Completed project demonstrates a basic use of multimedia software and hardware	1	

Testing, evaluating and maintaining

Methods of testing conducted

Criteria	Mark	
Volume data, simulated data and live data are identified. Discussion effectively outlines why each of these tests were or were not used in the testing process.	8-10	
Volume data AND/OR simulated data AND/OR live data are identified. Discusses the specific method(s) used to test the multimedia system	6-7	
Discusses how the multimedia system was tested but does not mention the specific test data types involved	4-5	
Identifies the need for testing an information system	1-3	

Evaluation of the multimedia system

Criteria	Mark	
Provides a comprehensive evaluation of the completed multimedia system together with the development process.	8-10	
Provides a substantial evaluation of the multimedia system	6-7	
Evaluates the multimedia system development process only	4-5	
Provides a basic evaluation of the multimedia system	1-3	

Communication

Criteria	Mark	
Substantial evidence of progress meetings is present. Agenda is well planned and minutes are clear and accurate. Clear and concise ongoing personal logs reflect the student's progress throughout the SDLC.	8-10	
Clear evidence of progress meetings is present in the form of a detailed meeting agenda and minutes. Personal logs reflect the student's progress through the SDLC.	6-7	
Recorded evidence of progress meetings is present but minimal. Logs are brief and/or do not effectively outline the student's progress to date through the SDLC.	4-5	
Limited evidence of progress meetings/communication with the teacher. Few or no logs were written.	1-3	

Presentation

Criteria	Mark	
A professionally designed and formatted report. Structure uses correct standards and the reader can easily find specific information via use of a dynamic table of contents.	5	
An adequately formatted and designed report. Structure uses correct standards and a table of contents is included.	3-4	
Report uses basic formatting and minimal design. Standards are inconsistent and/or table of contents is missing or inaccurate.	2	
A rudimentary formatted report. Minimal use of standards and/or lacks presentation. Table of contents is missing or inaccurate.	1	

TOTAL

%	/125