**B.Sc. (Honours) in Computing**

**(Multimedia Systems/Web Engineering)**

**Project Guidelines**

**Introduction**

As part of the honours degree year students are required to research a particular area of multimedia or computing and to produce a computer based multimedia system. The project is an integral part of the year. The module is worth **15** credits. The honours degree project has a much greater emphasis on research and independent learning than the degree project.

**Aim of the module**

This module aims to allow students the opportunity to assimilate their knowledge and skills in computing and multimedia to produce a computer-based multimedia system; to develop students’ ability to plan, implement and test a system within realistic time constraints; and to develop their ability to reflect critically on methodology and outcome

Learning Objectives

On completion of the project, the student will be able to:

* Carry out literature reviews and write a comprehensive report on a project
* Research an area of computer-based multimedia with a view to developing a multimedia system using the appropriate techniques and tools
* Plan, develop and implement a computer-based multimedia solution
* Apply the knowledge and skills acquired throughout the course to a major project

**Structure**

* The projects are individual.
* The project is expected to take about **375** hours of student effort throughout the year (September to May).
* There are **6** hours a week scheduled for project work and it is up to individual students to decide how these hours should be used. For convenience and to ensure availability of resources these hours are scheduled in computing labs but some weeks lab work may not be required while other weeks will require many more lab hours.
* Prepare documentation for the Department of Technology & Psychology’s Student Showcase event on May 13th (*TBC*).

**Supervision**

Each student will be allocated a supervisor who is a member of the lecturing team. The supervisor is there to provide guidance and support and where possible will have expertise in the application area and/or development environment(s) being used. However, the supervisor is not expected to give hands-on support in terms of error-fixing, tuition in new environments, etc.

Students are expected to meet with their supervisors regularly (preferably weekly) and to keep them updated of progress at all times. Supervisors will have the most input to each student’s final project grade, so it is important to maintain regular contact so they can evaluate your approach and project management as well as your end product.

**Deliverables**

During the course of the project you will be required to produce a number of deliverables. There is a deadline by which each deliverable must be complete. Look in *\\Sideshowbob1\lecturers\Tim McNichols\MM4 Final Project* for some templates. Ask at the library reference desk for DVDs of previous years’ project reports.

The final deliverable is a comprehensive Project Report which consists of all or some of the following sections (depending on the individual project):

* Abstract
* Acknowledgements
* Table of Contents
* Introduction
* Research
* Requirements
* Design
* Implementation
* Testing
* Results
* Discussion of results
* Conclusion
* References
* Appendices

**Monday 13th April** is a s**trict deadline. Sign a register when submitting to the Faculty of Film, Art & Creative Technology** **Office.**

**Late Penalty applies after 5pm**

**TWO RING-BOUND PRINTED COPIES OF THE PROJECT REPORT MUST BE SUBMITTED.**

The project is divided into phases based around the Systems Development Life Cycle (SDLC). The different phases are listed below and each phase will end with the production of the deliverables as indicated.

|  |  |  |
| --- | --- | --- |
| **PHASE** | **DELIVERABLE** | **DEADLINE** |
| Proposal | Project Proposal | **Friday 26th September** |
|  | *Allocation of Supervisor* | *Friday 3rd October* |
| Feasibility Study & Requirements Specification | Project Plan  Paper Prototype  Requirements Document\*  *Supervisor Feedback* | **Friday 31st October**  *Week of 3rd November* |
| Research & Analysis | Research and Analysis Report *(Literature Review)* | **Friday 5th Dec** |
| Outline Design | Outline Design & Prototype^ | **Friday 5th Dec** |
| Interim Review | Presentation | *Week of 8th December* |
| Detailed Design | Detailed Design | **Friday 16th January** |
| Implementation | Tested Source Code  *(End of Implementation)* | **Friday 27th February** |
| Testing & Draft of Project Report | First complete draft of project report  Test results  *Supervisor Feedback* | **Friday 20th March**  *Week of 23rd March* |
| **Final Project Report** | **Complete Finalised Project Documentation**  (2 Ring-bound soft copies); PDF file of documentation;  Uploaded source code | **Wednesday 13th April**  **@ 5pm** |
|  | Showcase Documentation | **Friday 27th March *(TBC)*** |
|  | Final Presentation | **Monday or Tuesday**  **11th & 12th May *(TBC)*** |
|  | Student Showcase | **Wednesday 13th May (*TBC*)** |

**\*Requirements Document**

A guide outlining the details to include in the Requirements document will be distributed in the *Applied Research Methods* class prior to the submission date.

**^Outline Design Document/Prototype**

Some projects will require a detailed design document to be produced prior to any development work being carried out. Other projects will follow an iterative design approach whereby a prototype is produced to give a better insight to the design requirements, then some modifications are made, the prototype is amended, etc. This incremental design/development approach will still require a design document to be produced which fully describes the systems functionality, but it will be finalised after the system has been completed. The most appropriate method that is followed will be dictated by the type of project and each supervisor will agree the approach with the student during the early stages of the project.

**Project Log**

In addition to the actual system documentation to be produced each student is expected to maintain a project log. This log will serve as an on-going record of the student’s progress and it should be updated periodically.