

750798, Project

3 Credit Hours, according to department regulations.

General Descriptions:

After passing the compulsory and elective modules, the student can select one of the projects announced by the

CS department under the supervision of a member of staff. The project consists of a research work on which the

student works over a period of two semesters that can be extended to three semesters.

Aims: The aims for the project work are:

- 1- To manage and execute a substantial project in a limited time.
- 2- To identify and learn whatever new skills are needed to complete the project.
- 3- To apply design and engineering skills in the accomplishment of a single task. In this context the skills mentioned may be in the general area of design and engineering in its broadest sense, or may be very specifically related to particular tools.

Learning Outcomes

On completion of this module, a student should have

1. Planned, executed and completed a significant design and implementation within the time.
2. Used the project supervisor appropriately as project consultant or customer.
3. Given a seminar which justifies the project.
4. Documented the project in a final dissertation.
5. Learned an approach to scientific research.

Textbook:

C. W. Dawson, The Essence of Computing Projects, A Student's Guide. ISBN 0-13-021972-X.

Prentice

Hall 2000.

Assessment:

31

The formal project deliverables are two seminars and a written dissertation.

• **Seminars**

The seminar is a formal presentation on the project given to members of staff, together with any other

students who wish to attend. The duration is about 30 minutes, which includes reasonable time for questions.

Students are expected to give the first seminar at the end of first semester. The talk should cover a description of the general problem and the background. The second seminar will take place at the end

of second semester. In this seminar, the general method of solution and the main results of the project

are demonstrated.

The seminars are to give students experience in communicating their work to others in a formal manner.

• **Dissertation**

The dissertation is a formal written document on the project. The dissertation must follow the following

set of standards, to facilitate its inclusion in the library and its usefulness for subsequent readers.

A) Here is a suggested structure for the dissertation. Some projects may be rather different from others, and therefore have good reasons for not following these suggestions exactly. Supervisor guidance should anyway be sought!

1. Introduction (1st chapter). What is the overall aim of the project? Why is it worth doing? Who will benefit from it? If the overall aim can be split into a number of subgoals, this is a possible place to do it. Finish with a chapter by chapter overview of the rest of the dissertation.

2. Background (2nd chapter). Analyze the background to the project. This should mention any previous work, here or elsewhere, and explain its relevance to the project. This could be an appropriate place to justify the choice of platform/software etc. used in the project.

3. Description of the student's own work: Design and Implementation (a chapter each). The structure of these chapters may reflect the project lifecycle, but do not write a diary of progress. The design should be clearly described and justified. Supporting diagrams should be used where appropriate and helpful. Keep your design description fairly high level. When describing implementation, confine yourself to the important, difficult, or interesting bits. Do not include large chunks of code. Figures may well be useful.

4. Results (1 chapter). What is the resulting system like to use. Include screen shots as appropriate.

5. Testing and Evaluation (1 chapter). What testing was done? How confident are you that everything works correctly, and what evidences can you produce to support this claim? Have you evaluated the system against its aims? How did you make this evaluation?

6. Conclusions (last chapter). What conclusions can you draw from the whole project? This should include a clear statement of what has been achieved overall, and will normally continue by suggesting areas of further related work which could be done.

B) The dissertation forms the basis of an independent assessment of the project and therefore has greater effect on the final project mark.

C) The dissertation must be on paper of A4 size (210 x 297 mm). Only one side of paper should be used. The dissertation must be produced using word processing facilities.

The body of the dissertation should be suitably divided into chapters and sections. Chapters, sections, pages, figures and appendices should all be numbered. Each chapter should start on a

new page.

The body of the dissertation should be preceded by a temporary title page, an abstract and a list of contents, and it should be followed by the references and then any appendices.

32

References to other published work should follow the conventions used in giving references in published work. e.g.:

[1] P. J. Denning, Human Error and the Search for Blame, *Communications of the ACM* 33(1): pp 6-7, January 1990.

The abstract page must give the title, author, and supervisor, as well as an abstract of the project.