

Assessment of Level 4 Projects

Guidelines for Students, Supervisors and Readers

Introduction

The project will be assessed by two examiners, who will normally be the project supervisor and a nominated reader. The assessment will be based partly on the technical content of the work, partly on the clarity of presentation and partly on the extensiveness of the dissertation (were all of the appropriate documents submitted?). In short the assessment will weigh up both the quantity and quality of the submitted work, and in addition will include components relating to Professional Conduct and Presentation Skills.

Assessment Criteria

The assessment criteria for Level 4 projects, together with their weights, are shown in the following tables. Note that weights in *italics* are variable (see below), whilst the other weights are fixed. Table 1 refers to software engineering-type projects, whilst Table 2 refers to research-type projects. It is, however, recognised that some projects involve a mixture of both software engineering and research.

Table 1: Assessment criteria for software engineering-type projects

Criterion	Refers to	Questions to be addressed	Weight
Analysis	Literature/background survey, problem analysis; requirements capture, approach to solution	Has the student surveyed relevant literature and existing software products? Has he/she captured the requirements? Has he/she analysed the problem, and devised a suitable approach for solving it?	<i>0.15</i>
Software Product	Software design, implementation, and documentation where appropriate	Is the software well-designed, functional, reliable, robust, efficient, usable, maintainable, and well-documented? Has it been demonstrated?	<i>0.4</i>
Evaluation	Testing and user evaluation where appropriate; suggestions for future work	Has the software been thoroughly tested, and subjected to appropriate user evaluation? Does the student have good suggestions for further work?	<i>0.15</i>
Dissertation	Completeness and coherence, organisation, literacy, bibliography	Is the dissertation complete, well-organised, and literate? Does it clearly explain the problem, and how the software was designed, implemented, tested, and evaluated? Does it contain a bibliography and proper citations?	<i>0.2</i>
Professional Conduct	One-page project summary; attendance, engagement with supervisor	Did the student complete a one-page summary of the project satisfactorily? Did the student attend meetings, and engage effectively with the supervisor?	0.05
Presentation	Oral presentation skills	Did the content reflect a knowledge and understanding of the work done? Were questions handled well? Were visual aids used effectively? Was the delivery fluent and confident, with good eye contact?	0.05

Table 2: Assessment criteria for research-type projects

Criterion	Refers to	Questions to be addressed	Weight
Analysis	Literature/background survey, problem analysis; approach to solution	Has the student surveyed relevant research literature? Has he/she analysed the research problem, and devised a suitable approach for solving it?	<i>0.15</i>
Research Product	Quality of the research, innovation, rigour in the way it is conducted,	Has the research been conducted well? Does it show evidence of original thinking? Are there significant errors? Might the research be worth of publication, perhaps after revision?	<i>0.4</i>
Evaluation	Evaluation of research results, suggestions for further work	Has the student critically evaluated and analysed the research results? Does he/she understand their significance? Does he/she have good suggestions for further work?	<i>0.15</i>
Dissertation	Completeness and coherence, organisation, literacy, bibliography	Is the dissertation complete, well-organised, and literate? Does it clearly explain the problem, and how the software was designed, implemented, tested, and evaluated? Does it contain a bibliography and proper citations?	<i>0.2</i>
Professional Conduct	One-page project summary; attendance, engagement with supervisor	Did the student complete a one-page summary of the project satisfactorily? Did the student attend meetings, and engage effectively with the supervisor?	0.05
Presentation	Oral presentation skills	Did the content reflect a knowledge and understanding of the work done? Were questions handled well? Were visual aids used effectively? Was the delivery fluent and confident, with good eye contact?	0.05

The supervisor is permitted to vary the weights for those components in italics for a particular project by ± 0.05 , but any proposal to vary the weights by more than ± 0.05 (or to introduce non-standard criteria) requires approval by the projects coordinator. (Note that the weights for Professional Conduct and Presentation Skills are fixed.)

Project Marking

The following guidelines apply to the marking of projects by supervisors and readers:

- The supervisor must mark the project in detail, by deciding a band for each criterion (from which the overall band is computed automatically).
- The reader may likewise mark the project in detail. Alternatively, the reader may simply decide an overall band for the project.
- The reader's final award will be the weighted aggregation of the reader presentation band (5%) and the reader project band (95%).
- Both supervisor and reader must justify their marks by addressing each criterion explicitly in their written comments.

In arriving at bands (either for the overall project or for individual criteria), supervisors and readers should exercise their judgement regarding the difficulty level of the project. (There is no explicit criterion in the marking scheme for this issue.) This will enable an appropriate interpretation to be made when marking, for example, a less challenging project whose requirements specification was met without difficulty, or a more challenging project that could not be completed within the time available.

Combined Honours Students

A combined honours project carries 20 credits, rather than the standard 30 credits for a single honours project. Thus, a combined honours student will have had less time to devote to their project (approximately 200 hours instead of 300 hours in the case of a single honours student), which should be reflected in the marking.

Reconciliation and Arbitration

In all projects:

- Where the supervisor's and reader's overall marks differ by 0–1 bands, the supervisor's overall mark will be taken as the final mark.
- Where the supervisor's and reader's overall marks differ by 2–3 bands, the supervisor and reader must confer to reconcile their marks. If they are unable to agree, the projects coordinator must invoke arbitration.
- Where the supervisor's and reader's overall marks differ by 4 or more bands, the projects coordinator must invoke arbitration.
- The projects coordinator has the discretion to invoke arbitration for any other reason, for example: where the two marks fall on either side of a critical borderline; where the agreed mark is a fail; or where the agreed mark seems unreasonably high or low.
- Arbitration entails engaging a second reader, who marks the projects independently. The supervisor and both readers then confer to decide the final mark.

Grade Descriptors

Project grade descriptors are presented in Table 3 in the form of a matrix, with one row for each grade and one column for each of the standard criteria identified above. The matrix includes a column for the overall standard of work. It can be seen from the row corresponding to grade A that only truly challenging projects are eligible for the very highest bands. Grade descriptors for the Presentation Skills component are shown in Table 4.

Note that the Professional Conduct component refers to the one-page project summary (due at the end of Semester 1) as well as attendance and engagement with supervisor at supervisory meetings. This one-page summary should describe the project aims, the work carried out to date and the work planned for the next semester. This will be assessed by the and his/her impression of the summary will then contribute to the Professional Conduct component along with the other issues mentioned.

Table 3: Grade descriptors for project assessment

Grade	Band	Analysis	Product	Evaluation	Dissertation	Overall
A (excellent)	A1 A2 A3 A4 A5	The problem analysis is excellent. The survey is comprehensive. The approach is definitely feasible.	The product is extremely well designed, implemented, and documented.	The evaluation is extremely thorough. There are excellent suggestions for further work.	The dissertation is complete, very well organised, very clear, and highly literate.	An excellent project. Few errors. Shows good judgement and skill in the methods used. <i>(A1 or A2 indicates a truly outstanding and challenging project, definitely worthy of wider dissemination.)</i>
B (very good)	B1 B2 B3	The problem analysis is very good. The survey is wide. The approach is feasible.	The product is very well designed, implemented, and documented.	The evaluation is very thorough. There are very good suggestions for further work.	The dissertation is complete, well organised, clear, and literate.	A very good project. Some flaws but the student has demonstrated a high level of competence and initiative.
C (good)	C1 C2 C3	The problem analysis is good. The survey is reasonable. The approach is reasonably feasible.	The product is well designed, implemented, and documented.	The evaluation is quite thorough. There are some good suggestions for further work.	The dissertation is nearly complete, fairly well organised, mostly clear, but occasionally less than literate.	A good project. There are flaws but the student has demonstrated competence and initiative.
D (satisfactory)	D1 D2 D3	The problem analysis is adequate. The survey is patchy. The approach is just about feasible.	The product is adequately designed, implemented, and documented.	The evaluation is just adequate. There are unconvincing suggestions for further work.	The dissertation is partly complete, not very well organised, clear in parts, and often less than literate.	A fair project. There are many flaws but the overall performance is satisfactory.
E (weak)	E1 E2 E3	The problem analysis is rather confused. The survey is inadequate. The approach is unconvincing.	The product is inadequately designed, implemented, and documented.	The evaluation is barely adequate. There are weak suggestions for further work.	The dissertation is incomplete, disorganised, mostly unclear, and mostly less than literate.	A weak project. There are significant flaws, indicating a lack of understanding of the methods used.
F (poor)	F1 F2 F3	The problem analysis is confused. The survey is poor. The approach is ill-conceived.	The product is badly designed, implemented, and documented.	The evaluation is inadequate. There are scant suggestions for further work.	The dissertation is scrappy, disorganised, unclear, and less than literate.	A poor project. There are major problems but also signs of some work.
G (very poor)	G1 G2	The problem analysis is very confused. The survey is very poor. The approach is very ill-conceived.	The product is very badly designed, implemented, and documented.	The evaluation is worthless. There are worthless or no suggestions for further work.	The dissertation is very scrappy, disorganised, opaque, and less than literate.	A very poor project. There are major problems and very few signs of any constructive work.
H		No significant attempt.				

Table 4: Grade descriptors for assessment of presentation skills

Grade	Band	Content / questions	Use of visual aids	Delivery
A (excellent)	A1 A2 A3 A4 A5	Choice of topics to summarise this part of the project indicates an excellent knowledge and understanding of the work done. Handles questions very well, revealing a depth of insight into the work.	Very attractive and informative visual aids, communicating effectively a summary of the key points to the audience.	Fluent, confident delivery. Good audience involvement by means of frequent and effective eye contact. Flowing narrative from one topic to next.
B (very good)	B1 B2 B3	Topics chosen indicate a very good knowledge and understanding of the work done. Handles questions well, revealing some insight into the work.	Visual aids are informative in general and succeed in communicating effectively a summary of the key points to the audience.	Mostly fluent, confident delivery. Good eye contact and narrative flow from one topic to next.
C (good)	C1 C2 C3	Topics chosen indicate some knowledge and understanding of the work, however responses to questions betray little insight into the work.	Visual aids are satisfactory to good, though some of the key issues are lost to the audience, perhaps because there are too many points to be covered in the time available, or the visual aids do not contain enough information.	Hesitant or somewhat hesitant delivery. Some eye contact in places, though mostly faces the OHP screen. Disjointed narrative flow from one topic to next.
D (satisfactory)	D1 D2 D3			
E (weak)	E1 E2 E3	Topics chosen indicate a weak knowledge and understanding of the problem to be solved, which is also reflected in answers to questions.	Visual aids are weak, with the result that the audience is confused as to the problem being solved.	Halting delivery. Very little eye contact – possibly reading entirely from notes. Little narrative flow from one topic to next.
F (poor)	F1 F2 F3	The content of the talk is minimal or largely inappropriate and reveals a significant lack of knowledge and understanding of the problem to be solved.	Visual aids are poor or non-existent, giving very little benefit to the audience.	Incoherent, disorganised delivery. No eye contact. No narrative flow from one topic to next.
G (very poor)	G1 G2			
H		No significant attempt.		