DEPARTMENT OF COMPUTER SCIENCE

Honours Stage Project

Student Handbook

2008-2009

HONOURS STAGE PROJECT – STUDENT HANDBOOK

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1. Introduction

This document details the principles and processes involved in the Honours Stage project module within Computer Science and related degree programmes. All students embarking on this module should become familiar with this content, and refer to relevant sections as appropriate during the course of their project work.

The Honours Stage Project is a 40-credit module (08341 Project), running throughout both semesters of the Honours Stage of all single honours BSc programmes in the department. It is compulsory for all students on these programmes, and for students in the 3rd year of MEng programmes. Module 08349 provides for BEng Computer Systems Engineering students who wish to pursue a project topic in the Computer Science domain.

The project module has several objectives and benefits, chiefly to allow students to show their all-round ability to tackle a substantial piece of computer-related investigation or software design and development work, to demonstrate project- and time-management skills and to bring the task to a successful conclusion with a quality report and presentation. Within this overall context however, the actual work done can vary widely between different projects.

Students taking a project must choose or be allocated a project topic and an individual project supervisor, who will be a member of teaching staff in the department. The project topic may be of the student's own suggestion, subject to approval by the department, or the topic may be chosen from a list proposed by staff.

Normally, the allocation of project topic and supervisor takes place towards the end of the Diploma Stage for continuing students, but may be delayed to the summer period prior to the Honours Stage for students directly enrolling at that point. Students who intercalate before Honours Stage will normally be contacted during February in their intercalation year. It is important that all intercalating students ensure that the department has contact details appropriate to that time.

The formal deliverables for the project modules are:

- The Project Initial Report
- The Project Interim Assessment
- The Project Final Report
- The Project Presentation and Demonstration of completed software
- Additionally, a small element of assessment relates to Project Management by the student throughout the project period.

The project is a portfolio of work considered as one assessment, even though it is composed of many overlapping elements (e.g. initial report, interim report, project management, dissertation and demonstration). Although marks are internally assigned to each element, the final mark for the project portfolio is a summation of all marks. Failure to submit a component is not specifically penalised, other than by lowering the overall mark.

The project module assessment is non compensatable, so the consequence of failure to pass the module on the first attempt will be to fail the assessment for the programme

year. For a final stage honours student, this will prevent graduation with honours, and for an honours stage MEng student this will prevent progression to the Masters stage. In both cases, however, the opportunity for reassessment exists. See section 7 for further details.

The Module Manager for the Project Module is Dr J D Rayner. Any comments or suggestions for improving the operation of the project modules or the clarity and content of this handbook will be welcomed.

2. Project Topics – Choice and Supervision

A glance at the Project Module web pages will indicate the variety of topics available for projects. Each year the department will provide a selection of project topics for students to choose from, based on individual interests of staff and the current research areas in the department. However, students are also encouraged to consider their own project topic ideas and to discuss these in good time with potential supervisors amongst the teaching staff.

2.1. Selecting a project from the Departmental List

Many of the projects on the departmental list are derived from current research investigations within the department, or based on tasks arising from industrial and commercial contacts. Others arise from the general wider interests of staff. Some projects may be marked as particularly suited to specific degree programmes, while others may be more widely relevant. Normally (but not always), projects allocated from the departmental list will be supervised by the proposer. The list is revised each year and published to Diploma Stage students during semester 2.

You should aim to discuss each project that interests you, with the member of staff who proposed it. This serves several purposes:

- the brief outlines in the list may not give a full idea of everything the project could include, so it is important for you to understand the potential breadth of your eventual project, and its relevance to your degree programme;

- negotiation between yourself and the likely supervisor may lead to an alternative or related project being created;

- it may be possible for more than one student to work in a team on different aspects of a larger project topic;

- it helps for each member of staff to know how much interest there is in their projects, and from whom, so that the allocation of topics can be more fairly made if or when several students all target the same choice!

2.2. Proposing your own Project

If you have an idea for your own project topic, you should talk to members of staff who may share an interest in your potential topic area, so you can develop a brief statement of project context and goals. Your project should contain sufficient scope for you to demonstrate the range of abilities indicated in Section 1, throughout the full time period of the module. Your topic area should be neither trivial nor superficial, but can be drawn from a context which is too large or complex to be addressed entirely within the project

timescale: this allows you to exercise project management skills, relating to choosing what to implement and what to leave for future work, and software design skills in your implementation to allow for future extensions to be made. A 'too big' project could be quite acceptable for initial approval, when a 'too small' one cannot be!

When you have developed your initial ideas you should complete and submit a **Project Proposal Form,** which will be considered for approval by the Departmental Project Panel. The project proposal form, and further guidance on how to complete it, will be provided via the module website at the appropriate time.

Remember, proposing your own project is in itself a mark of your initiative and awareness of potential topic areas, and can be the best way to work on a topic that really interests you.

2.3. Intellectual Property Rights

The ownership of your project results is a question of Intellectual Property Rights, and the area of shared rights is technically complex. In addition to yourself as the project worker, your supervisor, the University and any external collaborating organisation or individual may have a claim to benefits from exploiting your project, or conversely liabilities from any faults discovered in your work!

IPR issues are particularly important where external collaboration is involved, so if you wish to propose your own project, for example to provide a software system for a client outside the University, you should ensure that IPR is addressed in your project proposal. You should discuss your specific situation with your potential supervisor(s) and the Project Module Manager, identified in Section 1.

2.4. Ethics

Throughout the pursuit of your project, you must develop awareness of the ethical aspects of your work and ensure that you comply with the University's guidelines for ethical procedures. This might be significant in your choice of project topic area, or in gaining departmental approval for your own topic proposal or anticipated project development process. All students are therefore required to complete an ethics checklist (see Appendix C); which must be submitted with your initial project report. Completing the checklist will identify if ethical approval is required; for which an ethical approvals form will need to be completed. Your supervisor will assist you with this. The longer term implications of your work, once completed, must also be considered and addressed in your project reports delivered for assessment.

2.5. Topic Choice and Allocation of Supervisor

During semester 2 of your Diploma stage, you will be asked to review the available projects proposed by staff through the module website and use the online project choice system to indicate up to six alternative projects of interest to you. One of these can be your own topic proposal, provided you have entered details on the choice system and your project has been approved by the Project Panel. Full instructions for using the choice system will be provided at the relevant time.

If you are strongly expecting to intercalate following your Diploma stage, or for any other reason you do not expect to be registering on the Project module for session 2009-10 (i.e. you have a year in industry or study abroad), it would be helpful if you would email

the module manager to confirm your non-participation in the project choice process. *Note that any student requiring a project topic next session, but who does not participate in the choice process at the earliest opportunity, will have to make their arrangements in September, resulting in a late start and the likelihood of reduced overall performance.*

The project module manager will make every effort to allocate everyone with one of their best choices, but inevitably each year there are 'clashes' when too many students home in on particular projects. You should understand that there is a reasonable limit on how many project students each member of staff should have to look after, just as there is a limit on how many students may be allowed to do any one project. The allocation process operates over several weeks of semester so as to negotiate around these problems as fairly as possible.

Once the final allocation has been published, you should make arrangements to meet your supervisor as soon as possible, to discuss initial preparatory work. This is normally expected to begin during the long vacation before the Honours Stage, as background exploration and thinking is usefully spread over the summer weeks. However, allowance is made for students on industrial or other intercalation, and those enrolling directly into the Honours Stage from other institutions.

3. Management of Your Project

Every individual project is unique in its precise content and profile of activity, so the descriptions here can only provide general guidance. You are required to maintain regular contact with your individual project supervisor throughout the project period, ideally on a weekly basis, to benefit from specific guidance related to your own project area and progress. In addition to your individual supervision, several support lectures will give timely guidance at important stages of the project, relating to approaching deadlines. See Appendix A for the overall Project Calendar.

You should develop and maintain a Project Portfolio and log book throughout your project, to record ideas, thoughts, and events relating to your progress, and to collect notes, extracts and source references of background research. This is an important aspect of your Project Management technique, which will help you to discuss your progress at each supervisory meeting, and to remember later in the project just why you did particular things in the early days! Quite often, a project may not turn out exactly as originally envisaged: this should not be a problem if you can explain the reasons in your Final Report – so your Portfolio log is an important strategic resource.

Your project supervisor will eventually make an assessment of your overall Project Management, through which your development and use of the portfolio and log, effective use of supervisory meetings, and other aspects including time management issues, will contribute part of your overall Project mark.

3.1. Timescales and Deliverables

The project period begins in earnest at the start of Honours Stage semester 1. Ideally you should aim to have already started to build your Portfolio of resources – background notes, references to relevant context and useful software for example – and outline ideas for initial work. The first formal deliverable is the **Project Initial Report**, due by week 6 of semester 1, to document your initial intentions as to project goals, to outline

the type of background information you have found, identify necessary work tasks and timescales, and provide a risk analysis.

Depending of course on the particular style of your project, and subject to specific advice from your supervisor, you should probably aim to complete initial software specification and design work in time to develop a prototype or demonstrator system *before the end of semester 1.* This not only brings a welcome early sense of achievement alongside the down-time of revision for semester 1 module exams, it also provides a focus for specific feedback from your supervisor or any other clients, to help further developments through semester 2.

The **Project Interim Assessment** is due to be submitted midway through the overall project. The objective is to focus attention on presenting the overall purpose and context of the project in detail, to introduce the project to the second examiner, and report on progress to date. You should plan to discuss the required content in supervisory meetings towards the end of semester 1, so you can prepare the deliverable during the Christmas vacation.

The first half of semester 2 is typically the heavy period of intense attention to detailed software development. The time needed for actually getting your ideas realised in software and properly working as you intend – and to your client/supervisor's satisfaction – should not be underestimated. However, you should plan to be scaling down software development by week 6 of semester 2, so as to ramp up your time on completing your final report.

You should also not underestimate the time needed to pull together all the aspects of your work into your **Project Final Report**. It is the Final Report which forms the anchor for all the components of the project, and it is thus the main focus for assessment. First preparation for this, outlining the chapter structure and making first drafts of your background material, is expected around Christmas as part of the Interim Assessment.

Throughout semester 2, you should keep the report structure under consideration, and more actively develop draft sections as you proceed with major development of project software. Then from week 6 onwards these draft sections must be progressively firmed up and combined to generate the finished Report and other deliverable documentation as appropriate. Your supervisor will expect you to produce a draft of at least one chapter of your Final Report in good time during semester 2 to allow for advice and feedback on content and style to be given before the remainder of the report is completed.

Two copies of your Final Report and associated software deliverables (including one pdf copy that matches to the hard copy) must be submitted just before or after the Easter vacation within semester 2 (see Appendix A for detailed timing and Appendix B for the exact specification of what you need to submit). Following this, you will be asked to make a **Presentation** of your project, to two examiners, one of whom will normally be your supervisor. The presentation allows you to demonstrate your software in operation, showing its structure and capabilities, and to highlight significant aspects of your achievements within a general overview of the project. The software demonstration and general presentation is assessed for a small percentage of the marks, and provides a chance for the examiners to ask questions to clarify issues from your report before they reach their final assessment decisions.

Both examiners will read and make their assessment of your Final Report, taking account of your Presentation and Demonstration of software. The second examiner will also provide an assessment related specifically to the Presentation and to the Interim Assessment, while your supervisor will assess the Initial Report and your overall **Project Management**.

3.2. Equipment and Facilities

Projects proposed by staff will normally be expected to use equipment and facilities available through the department. If you prefer to work with your own equipment, either for your own project topic or a departmental one, *you should ensure at all times that your work can be presented effectively within the department*. You will also need to show work in progress to your supervisor at regular intervals.

It is the responsibility of each project student, working in a professional manner, to maintain adequate back-up copies of their work in progress, to guard against unplanned problems such as equipment failure or loss (e.g. theft of a laptop). This is particularly important for students working on personal or other non-departmental facilities (either for the whole project or for production of report deliverables) which do not achieve the same level of back up protection that would be provided on University and Departmental computers. One way of achieving this, for example, might be to copy your files to university systems at regular intervals.

In the event of problems arising which should be resolved by resorting to a recent back-up, the absence of such a back-up will not in itself be accepted as mitigating circumstances justifying an extension to any imminent deadline. *If, for example, you suffer a disk crash on your personal computer while completing your project report in the run up to the final deadline, and you do not have appropriate backups, your project may be failed as late.*

No student is expected to provide their own equipment to support their project unless there are exceptional circumstances, and formal assessments and presentations will normally be conducted on University premises. If your project ends up as runnable only on your own equipment, you will have to arrange for it to be available in the department for formal presentations, and examiners may well ask why your software is not portable. There may also be insurance and electrical safety issues to consider in bringing personal equipment onto University premises. If relevant, you should obtain advice after consulting your supervisor.

3.3. Project Preparation

Your first action, after you have your topic and supervisor confirmed, is to arrange to meet your supervisor. Unless you are not in Hull at the time, *you should see your supervisor before the end of your Diploma stage semester 2*. Otherwise, email contact should be made as soon as practicable.

Your first contact will allow more detailed discussion of the project topic than is possible within the initial brief, and a range of initial explorations should be identified. Hence you will be able to begin background research and reading to find relevant information on software environments, existing examples of systems related to your intended work, and other contextual background.

You should keep notes not just of the material you find, but also record the *complete source reference details* of where you find useful information. This is so you can get back to the original information later, and you can properly list the reference details in your report bibliography, for others to follow up if they wish. (Check the relevant appendix of your departmental *Undergraduate Student Handbook* for guidance on what to include and how to present your reference citations.) You should *avoid* bulking up your project portfolio with verbatim printed copies of source material: *develop your skill at noting and abstracting* essential points, and refer back later if you need to clarify things. Make use for yourself of your developing bibliography!

Note that a high class project will refer to background material from a wide range of sources, not just those on the Web. In particular, you should make every effort to reference original sources of cited material – be careful with unmoderated or informal sources, such as *Wikipedia* for example, and avoid citing them in your bibliography.

In parallel with your background explorations, you should give more detailed thought to the range of things you expect to achieve in your project, how these tasks relate to the overall goals, and the sequence in which they might be tackled; along with appropriate risk management considerations. This enables you to draw up a sequenced time-plan of tasks through (at least) the first phase of work during semester 1. The time plan will form a component of your Initial Report.

Background preparation should take place (wherever possible) during the long vacation preceding Honours Stage, and through the first few weeks of semester 1 leading to submission of the Initial Report. Meetings with your supervisor in the early weeks of semester 1 will focus on reviewing the background material, discussing your developing detailed project framework and your list of expected tasks within that, all aimed at producing a clear, concise and complete Initial Report as the foundation document for your project.

3.4. Risk Analysis

An important step in the planning of a project is to consider likely problems which may arise, and prepare contingency plans. This process is known as risk analysis, and you are expected to include this in the initial stages of your project. You should identify each aspect of your project activity, and consider problems that might arise. Then estimate the likelihood of each problem (low, medium or high likelihood), and the level of seriousness to the project's continuity if the problem did occur (again, low, medium or high severity). The overall risk level for each problem is then the product of these two ratings (Significance = Likelihood x Severity). Any problem with a medium or high likelihood or severity should be considered carefully, and potential avoiding strategies, corrections or work-arounds should be identified. Your overall risk analysis should be tabulated for inclusion in your Initial Report, along with a brief discussion.

4. Project Deliverables

There are four deliverables within five elements of assessment for the project module. The balance between these elements is:

- Project Initial Report 5% (supervisor)
- Project Interim Assessment 5% (second examiner)
- Final Report (including software construction appraisal) 2x40% (both examiners)

- Project Presentation and software operational demonstration — 5% (second examiner)
- Project Management appraisal — 5% (supervisor)

Requirements for each of the deliverables are outlined below, with more detail set out in the Appendices. Assessment criteria are discussed in section 6.

4.1. Project Initial Report

Your Initial Report is submitted to your supervisor, via the Departmental Office, by week 6 of semester 1 (see Appendix A for precise timing), and meeting this deadline is a significant point in your conduct of project management.

The Initial Report shows four things:

- the agreed **project title** (which may have changed from the 'initial brief'), and the original initial brief project specification
- your **context and task analysis** for the project, giving an overview of the project context, outlining and justifying the tasks envisaged to be done and their necessary sequence, and including a risk analysis and ethical checklist. Any significant changes from the initial brief should also be noted.
- a formal summary **time chart** showing what tasks should be active in each week of the project, from start to finish
- your **initial bibliography** of source material references. (See the relevant appendix of your departmental *Undergraduate Student Handbook* for presentation styles.)

Most of this content should be straight forward to create on the basis of your preparatory work. Standard formats for the time chart and bibliography can be followed, from advice in support lectures and from your supervisor. The initial project brief will be as originally published in the departmental list or agreed with you as your own proposal, but the title may be changed for the Initial Report if appropriate.

The main effort for the Initial Report will be in documenting your analysis and understanding of your project in order to show the logic of your task selection, based on the initial specification and background researches. This section of your Initial Report should be kept to a reasonably concise length, so the overall document comes out at around six to ten pages in total. It should be bound either by one corner stapled, or two or three staples in the left hand margin. The title page should be laid out analogously to the Final Report specification, but substituting the words "PROJECT INITIAL REPORT" (see Appendix B). You should also remember to complete and submit a signed copy of the Ethics Checklist (see Appendix C).

Support lectures during semester 1 will review the overall module deliverables and timetable, and provide general advice on preparation of the Initial Report and Interim Assessment deliverables.

4.2. Project Interim Assessment

Your Interim Assessment is submitted to your second examiner, via the Departmental Office, in week 1 of semester 2 (see Appendix A for precise timing). The deliverable includes four elements, which should be presented as a formal report.

- **Introduction** to your project: an *updated and revised* version of material from your Initial Report, which will later evolve into the first chapter of your Final Report.
- **Background Survey**: a narrative description of the general context within which your project fits. Depending on your particular project characteristics, you may need at least to include discussion of any or all of the following – previous related work; the work or objectives of a client; the essential principles of systems or techniques you are using. All this narrative should be properly annotated or referenced to source materials. Remember that a high class project will refer to background sources beyond just those on the Web.
- **Progress review**: Referring to the task list and time plan reproduced from your initial report (as an appendix), you should briefly discuss how far you have progressed, where your progress varies from your original time plan estimate, and what revisions to your time plan you may intend to make for the remaining weeks. If there are significant variations, a fresh time plan should be presented.
- **Bibliography** of source material references, reproduced and extended from your initial report. (See the relevant appendix of your departmental *Undergraduate Student Handbook* for presentation styles.)

4.3. Project Final Report

The Project Final Report is the anchor for all elements of your overall project, and the main focus for assessment. It should be treated as a quality publication, which shows off both your project achievements and the department in a good light. Appendix B gives specifications for physical structure and layout of your Project Final Report, and you should ensure at an early stage that you can achieve these with whatever text processing software you intend to use. Appendix B also specifies the exact submission requirements (i.e. in what format you must submit your final report)

Given the great variety of individual project topic areas, actual chapter titles can differ widely between different Reports, but as with all formal reports, your Project Final Report must have:

- appropriate report title and contents pages
- overview, summary or abstract
- narrative introduction and background chapter(s)
- appropriate main chapters to cover the specific developments you have achieved
- review and critical appraisal of your achievements
- reference bibliography
- any necessary appendices to show bulk detail
- an attached CD containing machine-readable versions of *all software components and deliverable documents* – i.e. the Final Report itself (including all appendices/attachments) in pdf format, plus pdfs of the Initial and Interim deliverables.

You can refer to past project reports from the Departmental Library for examples of structure, while the relevant appendix of your departmental *Undergraduate Student Handbook* demonstrates approved presentation styles.

Projects entailing production of a software system for a client should normally provide appropriate documentation for users and system maintenance. These should ideally be presented physically as appendices to the overall Final Report (perhaps faced with a

sheet of coloured paper as a separating marker), but *written and laid out so they could be extracted* as separately bound documents.

Support lectures during semester 2 will provide further guidance on planning, drafting and refining the text of your Final Report, and preparing for your Presentation and software demonstration. Your supervisor will expect you to produce a draft of at least one chapter of your Final Report in good time during semester 2 to allow for advice and feedback on content and style to be given before the remainder of the report is written.

The deadline for submission of your entire Project will be just before or after the Easter vacation within semester 2, according to the session calendar. This allows time for the examiners to read your report before meeting with you for your Presentation and software demonstration towards the end of the semester (detailed timings are given in Appendix A).

4.4. Project Presentation and Software Demonstration

The formal demonstration of software and general presentation of your project provides an opportunity for you to show the use and capabilities of your software in operation, and to highlight significant aspects of your achievements within a general overview of the project. Although the presentation and software demonstration is assessed for a small percentage of the marks, it also provides a chance for both examiners to ask questions to clarify issues from your report before they reach their final assessment decisions.

You should prepare for your presentation carefully. It should follow a logical path through the points you wish to highlight, starting with a short introduction quoting the project title, with a quick review of the project context and background, leading into the software demonstration of significant points about your final product. Again, refer to your supervisor for advice and discussion about what to include and what to make the most of.

You should also try to anticipate any likely questions from your examiners. These should not be in any way tricky or deep, unless you have had problems and tried to hide them! More likely, your examiners may want to explore your reasons for choosing a particular technique or design, for example. If you wish, you may ask for your demonstration to be arranged in a room with projection facilities for a formal presentation using appropriate software, or you could choose to prepare cue cards or other simple aids to presenting your material.

Any student who fails to attend their allotted dissertation demonstration slot will have a mark of zero recorded for their demonstration. However, if a student has legitimate reasons why they missed the demonstration, they are required to submit a mitigating circumstance form. This penalty is in-line with new policy on attendance, and promotes expectations of professionalism during demonstrations. If the Mitigating Circumstances Board supports the student's case, the demonstration mark will be discounted when calculating the final project mark. However, you should remember that the demonstration can also influence the examiners' overall view of the project and therefore the remainder of the marks.

5. Supervision, Support Lectures and Facilities

Your supervisor will expect to meet with you at weekly intervals throughout the project period, to support your work and give any advice you may seek about strategy, timing, and other choices during project development. **Your attendance at these meetings is compulsory** and a professional approach to project management includes arranging in advance of a meeting if rescheduling is necessary, not picking up the pieces later. Failure to attend without providing any valid reason for your absence will result in the issuing of a departmental warning. Whilst meetings will be scheduled on a weekly basis initially, the intervals may be varied by agreement as your work proceeds. In some weeks you will be deep in coding and not have much new to show; at other times you may need to make contact almost daily as issues or problems arise.

The hallmark of good project management is to keep in touch with your supervisor or client, be professional in your conduct and avoid wasting time – think about what you want from each meeting, and have your discussion points ready. If problems arise, try to solve them yourself to start with, but don't spend too long without seeking guidance or switching to another task for a while. The worst thing you can do is go off to complete your project on your own – even if it's your own topic idea – without showing your progress to your supervisor. You should also remember that a completed software system that works to your satisfaction – or an external client's satisfaction – may still not be sufficient or appropriate work for the academic requirements of the project module, and you need to know that before you submit the project!

At intervals through the project period, there will be short lecture sessions arranged to provide guidance and support relating to impending deadlines. These will in turn cover requirements for the Initial Report, then the Interim Assessment, and later issues relating to preparation, structure and submission of the Final Report, and preparation for the Presentation and Software Demonstration. You should be sure to attend all these support lectures, and then seek detailed guidance from your supervisor relating the general points to your specific project.

The usual departmental and University network facilities are available to you for your project – both for software development and to produce documentation and reports. Although you may find it more convenient to use your own equipment, remember you will be responsible for managing security backups, and you should always ensure that your work can be demonstrated and presented formally in the department for assessment purposes.

6. Assessment Criteria and Process

Project assessment is divided between the Initial Report (semester 1), the Interim Assessment (semester 1–2) and the Final Report and Presentation (semester 2). Assessment criteria vary between these deliverables, as indicated in the example assessment proformas (see appendices from D onwards). However, all narrative report-based deliverables must be prepared to a standard style (see Appendix B), and be written to your best ability using appropriate, professional terminology.

The fundamental objective of your Project Assessment is to characterise your ability both as a potential professional software designer/developer/producer, and as a researcher, analyst and reporter of technical material. The overall quality of your end product, be it software and documentation, or conclusions from systems research and analysis, is considered in terms of its completeness, coherence, technical quality, and

relevance to goals. Report quality is assessed for style, content and presentation, and the evidence it gives for the breadth and relevance of your background research, your originality in addressing design problems, and your ability to reflect critically on your achievements.

Of course, much of the evidence for the assessment criteria given above for overall product quality will be conveyed by your report discussion. Your Demonstration of software and project presentation, while contributing only a small proportion of marks directly, serves also to support and confirm assessment of the other elements, in particular the appraisal of technical issues, software structure and usability, etc.

Each Assessment deliverable must be submitted to the Department Office by the appropriate deadline shown in Appendix A. For each assessment, guidelines for excellence are indicated against each assessment criterion (see Appendices D-H). The proformas also indicate, for general guidance, those assessment criteria which carry increased weight within an assessment, and those which carry less weight, relative to an even spread of marks.

Following the Initial and Interim assessment stages, individual feedback on student performance will be provided by the project supervisor, following prompt return of deliverables and assessment proformas from examiners. The deliverable documents will be reviewed by student and supervisor in the light of the examiner's comments, and kept by the student for continued reference through later stages. Following the Final Report and Presentation stages, once the overall module results have been declared, one copy of the Final Report and CD will be made available through the Department Office for the student to collect. This will typically happen at the time of graduation ceremonies, or by individual arrangement for students progressing to the Masters Stage of MEng degrees.

7. Reassessment Advice

If you fail your project module (i.e. 08341 or 08349) you will have the opportunity to be reassessed through the resubmission of your project final report and relevant software, and a new demonstration may also be required. However, you will be expected to show that you have undertaken further work on your project by documenting all changes made. Failure to document the changes or to make any changes at all will result in the same mark being awarded for the module, with the result that you will fail the module again and will not be eligible for the award of an honours degree; as the 40 credits for the module are non-compensatable.

Changes must be summarised on a separate sheet attached to your new project final report submission and referencing where in the revised report the changes occur. The new final report should be revised from the original submission so as to fully describe and document the revised project as if it were the original submission. However, only **one** copy of revised submission (properly bound as described in Appendix B).

8. Summary

The Honours Stage Project module (08341 and 08349, 40 credits) operates throughout both semesters of the Honours Stage, and is compulsory for all single honours students and those anticipating progression to MEng. Project topics and supervisors are normally selected during semester 2 of Diploma Stage, so preparatory work can

proceed during the summer vacation, but allowance is made for all students for whom this is not feasible.

The project work begins in earnest in the first weeks of semester 1 of Honours Stage, with regular meetings between student and supervisor throughout. Deliverables are due midway through semester 1 (the Project Initial Report), at the start of semester 2 (Interim) and around Easter in semester 2 (the Project Final Report and subsequent Software Demonstration).

Assessment of project deliverables includes a variety of criteria including overall quality of content and of presentation, technical quality and project management. The successful completion of a project is a part-requirement for professional accreditation of your degree.

Students remain responsible at all times for appropriate professional conduct of their project work, including respect for the Intellectual Property of others whose work they cite or build upon; protection of their own development work in progress through the use of adequate back-up practices; attention to deadlines, time management and liaison with client/supervisor.

Appendices

APPENDIX A – Project Calendar

Honours Stage Project Calendar 2008/2009

(References in italics are for Diploma Stage students)

Week commencing:			
SEMESTER 1	**2008**		
Wk 1-1	Sep	29	Regular (weekly) supervisor meetings resume week 2
Wk 1-2	Oct	06	Module support lecture this week (see timetable)
Wk 1-3		13	
Wk 1-4		20	Module support lecture this week (see timetable)
Wk 1-5		27	**Initial Report due* by 4pm, Thursday 30 October**
Wk 1-6	Nov	03	
Wk 1-7		10	Supervisor meeting should include feedback on Initial Report
Wk 1-8		17	
Wk 1-9		24	Module support lecture this week (see timetable)
Wk 1-10	Dec	01	
Wk 1-11		08	Supervisor meeting to include advice for Interim Report
Wk 1-12		15	
Vac C-1		22	Christmas vacation } review background material
Vac C-2		29	Christmas vacation } and prepare draft report chapters
Vac C-3	Jan	05	Christmas vacation } within Interim Assessment
Vac C-4	Jan	12	Christmas vacation } *plus exam revision!*
Wk 1-13		19	Examinations **Interim Assessment due* by 4pm, Thursday 22 January****
Wk 1-14		26	Examinations
SEMESTER 2	**2009**		
Wk 2-1	Feb	02	Regular supervisor meetings resume
Wk 2-2	Feb	09	Module support lecture this week (see timetable) *Meeting on project topic choice (see noticeboard or email)*
Wk 2-3		16	
Wk 2-4		23	Supervisor meeting for feedback on Interim Assessment
Wk 2-5	Mar	02	*Staff project topics out this week: choice selection begins*
Wk 2-6		09	
Wk 2-7		16	
Wk 2-8		23	Module support lecture this week (see timetable) *Diploma stage students submit project choices for next year*
Vac E-1		30	Easter Vacation } review deliverables and plan
Vac E-2	Apr	06	Easter Vacation } first draft of final report
Vac E-3		13	Easter Vacation } and review other modules
Wk 2-9		20	*Diploma stage students draft allocation of projects*
Wk 2-10		27	
Wk 2-11	May	04	**Project final deliverables due* by 4 pm, Thursday 7 May**
Wk 2-12		11	Module support lecture this week (see timetable) *Diploma stage students' final allocation of projects*
Wk 2-13		18	Examinations and preparation for project presentation *Diploma stage students arrange initial meeting with supervisor to take place before end of semester*
Wk 2-14		25	Examinations and preparation for project presentation
Wk 2-15	June	01	Examinations and Honours Stage project presentations
Wk 2-16		08	Honours Stage project presentations

*** All Project-related hand-ins should be delivered to the Departmental Office, *not* the 'white box' and *not* your project supervisor.**

APPENDIX B – Project Deliverables – Structure, Style and Delivery

Delivery Deadlines

All project deliverables should be handed in ***at the Departmental Office*** by the relevant deadline shown in the Project Calendar (Appendix A). Penalties, in the form of reduced marks, may be incurred for late submission: the later the submission, the greater the penalty. *Extensions are rarely given unless students have serious mitigating circumstances, for which evidence must be supplied*

Material Required

Initial Report

This should be prepared with content as specified in section 4.1, and submitted as a single hard copy document according to the format below.

Interim Assessment

This should be prepared with content as specified in section 4.2, and submitted as a single hard copy document according to the format below.

Final Report

This should be prepared with content as specified in section 4.3, according to the format below and submitted as follows:

- Two hard copies of your Final Report
- One hard copy of your Initial Report
- One hard copy of your Interim Assessment
- Two CDs that contain:
    - pdf file of your Final Report (and all the files relating to your report)
    - any software and associated documentation.
    - full instructions on how to install and run the software.
    - pdf file of your Initial Report
    - pdf file of your Interim assessment
- Please ensure that both versions (hard copy and pdf) of your final report match as your final report may be marked using either the electronic or hard copy version.

One copy of your project will be returned to you after the graduation ceremony; either at the departmental graduation celebration or by post. The second copy will be retained for the Departmental Library, and may be endorsed so as to identify better quality reports, for the benefit of future students' reference.

Length of Reports

Project reports are assessed according to content, not weight. You should write sufficient to convey accurately the issues you have to address, and avoid unnecessary elaboration. The ***maximum*** length, including all text sections, titles, headings, contents, embedded figures, illustrations, etc., is as follows:

Initial Report:	2,000 words, between 6 – 10 pages overall
Interim:	3,000 words, around 10 – 14 pages overall
Final Report:	15,000 words, (about 40 pages overall subsuming earlier material)

Appendices will count as additional to the above sizes, and should be used to convey significant detail which is inappropriate to include in the main narrative. For example, system documentation, User Guide, or extensive tabulations of experimental results,

should be presented as appendices to the Final Report whose main content should be restricted to analysis and discussion of project goals, process and achievements.

Report Format

The text of your reports and documentation should be prepared with a word processor, and appropriate use of other relevant tools. Diagrams neatly drawn by hand are acceptable if they would be awkward to produce by any other method.

Text should be presented in **black** ink on white paper, using only one side of each page. Colour print should be avoided, except when effective in diagrams and illustrations.

General text should use 11 or 12 point type, preferably Arial or equivalent, with *judicious use* of bold and/or italic style for emphasis.

Chapters, sections and subsections should bear headings with decimal style numbering, for example as in the body of this Handbook. Headings may be set consistently in one contrasting typeface.

All pages should be uniquely numbered throughout the report as a whole, not per chapter.

Each page number should appear centred in the bottom margin.

Allow an adequate margin on the left side of every page for binding, for example 2.5cm, with at least 2cm on all other sides.

A contents page *must* be included at the front of each document immediately following the title page, so an index at the back is *not* required.

Both reports should be comb-bound with black combs between red covers, obtainable from the Departmental Office. The title page should be set out as shown below, so that the text is visible through the rectangular window cut out of the front cover. There are several shops that provide a comb-binding service located near the University, e.g. on Newland Avenue or Beverley Road.

The standard front cover has a rectangular window cut out from it to show your title page details, which must be set out as shown below. Set your title page margins to achieve this position, based on measurements from your purchased covers.

BSc (*or MEng*) FINAL PROJECT

Submitted for the
BSc Honours (*or MEng*) in Computer Science
or other degree title

April 2009

Title of Project

by

your name

Other documents, for example program listings, User's Manual or installation instructions, should ideally be prepared *as if to be* separately bound documents, but then bound as appendices to the Final Report, unless their total size makes this impracticable. Insertion of a single sheet of coloured paper, blank or carrying a title, as a visible separator in front of each such appendix can make the overall book more manageable. Ask your project supervisor for advice on this matter.

Although your Initial Report and Interim Assessment do not need to use formal card covers, they should still begin with a title page bearing the information illustrated above, but *replacing* the words “FINAL PROJECT” with the words “PROJECT INITIAL REPORT” or “PROJECT INTERIM ASSESSMENT” as appropriate, and using the relevant month and year of submission.

APPENDIX C – Ethics Checklist

This form is only applicable for projects that use other people ('participants ') for the collection of information, typically in getting comments about a system or a system design, getting information about how a system could be used, or evaluating a working system.

If no other people will be involved in the collection of information, you do not need to complete Section A, but, you must complete and sign the declaration in Section B and submit it with your initial project report.

Section A

1. **Participants will not be exposed to any risks greater than those encountered in their normal working life.**
   Researchers have a responsibility to protect participants from physical and mental harm during the investigation. The risk of harm must be no greater than in ordinary life. Areas of potential risk that require ethical approval include, but are not limited to, investigations that occur outside usual laboratory areas, or that require participant mobility (e.g. walking, running, use of public transport), unusual or repetitive activity or movement, that use sensory deprivation (e.g. ear plugs or blindfolds), bright or flashing lights, loud or disorienting noises, smell, taste, vibration, or force feedback

2. **The experimental materials will be paper-based, or comprised software running on standard hardware.**
   Participants should not be exposed to any risks associated with the use of non-standard equipment: anything other than pen-and-paper, standard PCs, mobile phones, and PDAs is considered non-standard.

3. **All participants will explicitly state that they agree to take part, and that their data could be used in the project.**
   If the results of the evaluation are likely to be used beyond the term of the project (for example, the software is to be deployed, or the data is to be published), then signed consent is necessary. A separate consent form should be signed by each participant.
   Otherwise, verbal consent is sufficient, and should be explicitly requested in the introductory script.

4. **No incentives will be offered to the participants.**
   The payment of participants must not be used to induce them to risk harm beyond that which they risk without payment in their normal lifestyle.

5. **No information about the evaluation or materials will intentionally be withheld from the participants.**
   Withholding information or misleading participants is unacceptable if participants are likely to object or show unease when debriefed.

6. **No participant will be under the age of 16.**
   Parental consent is required for participants under the age of 16.

7. **No participant will have an impairment that may limit their understanding or communication.**
   Additional consent is required for participants with impairments.

8. **Neither I nor my supervisor is in a position of authority or influence over any of the participants.**
   A position of authority or influence over any participant must not be allowed to pressurise participants to take part in, or remain in, any experiment.

9. **All participants will be informed that they can withdraw at any time.**
   All participants have the right to withdraw at any time during the investigation. They should be told this in the introductory script.

10. **All participants will be informed of my contact details.**
    All participants must be able to contact the investigator after the investigation. They should be given the details of both student and module coordinator or supervisor as part of the debriefing.

11. **The evaluation will be discussed with all the participants at the end of the session, and all participants will have the opportunity to ask questions.**
    The student must provide the participants with sufficient information in the debriefing to enable them to understand the nature of the investigation.

12. **All the data collected from the participants will be stored in an anonymous form.**
    All participant data (hard-copy and soft-copy) should be stored securely, and in anonymous form.

If your evaluation does not comply with one or more of the twelve points above, please tick box 'c' Section B, sign and submit it with your initial project report before completing and submitting an ethics approval form to the Departmental Ethics Committee. Your supervisor will assist you with the ethics approval form.

If your evaluation does comply with all the twelve points above, please tick box 'b' Section B, sign and submit it with your initial project report.

[adapted from Department of Computing Science University of Glasgow Ethics checklist form for 3rd/4th/5th year, MSc IT/CS/ACS projects 2007]

Section B

Outcome:

	Please tick as appropriate
a. This project does not involve other people in the collection of information and therefore does not require an ethical review	
b. This project complies with **the entire** 12 point ethical checklist and therefore does not require ethical review.	
c. This project does not comply with **all** of the twelve points above and therefore does require ethical review and the completion and submission of an ethical approval form.	
d. This project does not comply with **all** of the twelve points above, however the supervisor already has ethical approval for this research	

If you have ticked 'c' you will be expected to apply for ethical approval. Further advice is available from both your project supervisor and the Department's Ethical Officer, as well as by reading and completing the necessary forms contained in the Department's Guidelines for Ethical Procedures; available online at:

http://intra.net.dcs.hull.ac.uk/sites/home/staff/ethics/Ethics%20Committee/Forms/AllItems.aspx

Project Title: _____

Student's Name: _____

Student's Registration Number: _____

Student's Signature: _____

Supervisors' Signature: _____ Date: _____

PLEASE remember to submit this with your initial project report

APPENDIX D – Example Assessment Report – Initial Report

UNIVERSITY OF HULL
DEPARTMENT OF COMPUTER SCIENCE
FINAL PROJECT ASSESSMENT
(INITIAL REPORT)

Name of Student	
Project Title	
Degree Programme Title	
Examiner (Full Name)	*(supervisor)*

Please assess the following aspects of the Project Initial Report against the criteria listed overleaf, and indicate your assessment in the table*:*

		poor	weak	fair	good	vg	exc
General presentation of report	%						
Initial topic brief and introduction							
Background context / overview							
Expanded specification and analysis	**						
Bibliography scope							
Bibliography presentation	%						
Task list							
Time plan							
As project supervisor, I confirm that the student has submitted an ethics checklist with their initial project report and that I agree with the assessment made.		Yes* / No *(please delete as appropriate)*					

**If Yes please advise student to read the Department's Guidelines for Ethical Procedures and to contact the Department's Ethical Officer for advice.*

Brief comments (in particular, a clear discrepancy between the overall mark and the tabulated assessment should be justified):

Overall Mark for Initial Report: _____%

Signed ..... *(examiner)* Date .....

DEPARTMENT OF COMPUTER SCIENCE
FINAL PROJECT – INITIAL REPORT

ASSESSMENT CRITERIA FOR EXCELLENCE

General presentation (% - lower weighting)

An excellent report will have a highly professional standard of presentation, consistently neat layout and minimal errors of grammar and spelling. The report will be logically sectioned, with attention paid to systematic and coherent use of type size and style for headings and occasional emphasis. [learning outcome 5]

Initial topic brief and introduction

An excellent report will have a general introduction to its own structure and content; it will quote the original topic brief exactly, and proceed to outline any areas of change. The introduction will also indicate the breadth of the project context. [1-3]

Background context / overview

In an excellent report, significant aspects of relevant background will be clearly but concisely outlined, with formal references made to sources of information listed in the Bibliography. The order in which topics are addressed will form a logical and progressive narrative, with an appropriate balance of academic/technical and client/requirements issues considered. [1-3]

Expanded specification and analysis (** - higher weighting)

An excellent report will consider the broad project goals indicated in the initial brief and elucidate with insight and methodical analysis, to derive tasks to be pursued within the project. These tasks will be outlined and intelligently evaluated to determine their relative importance and possible sequence within the work plan. Potential difficulties and alternative approaches will be noted. There will also be an intelligent review of relevant ethical considerations and a formal risk analysis of the project tasks and timescales. [1-3]

Bibliography scope and presentation (% - lower weighting on presentation)

An excellent bibliography will indicate a wide scope of different research sources, including many of the following: academic papers, textbooks, technical sources, application domain-related materials, general contexts, in both traditional and modern media. All bibliographic references will be presented in full and consistently according to a recognised protocol, such as that advised in departmental literature.

[1,5]

Task list

The task list will summarise each separate task identified in the narrative analysis, in the form of a short title and one or two sentences of description, together with a task number linking to the time plan. Significant deliverables and intermediate points will also be identified and summarised in similar fashion. [1-4]

Time plan

The time plan will display all the tasks listed against the project weeks in which each will be active, in a rectangular chart. Additional task rows may be included to show the incidence of external time constraints (e.g. exam revision) and all calendar weeks should be included from start of semester 1 to end of semester 2. In a high quality report, the plan will demonstrate ability to use relevant software in its production, relate project weeks to calendar dates, and differentiate between developmental and management tasks, intermediate milestones and deliverable deadlines, etc. [3,4]

APPENDIX E – Example Assessment Report – Interim Assessment

UNIVERSITY OF HULL
DEPARTMENT OF COMPUTER SCIENCE
FINAL PROJECT ASSESSMENT
(INTERIM ASSESSMENT)

Name of Student	
Project Title	
Degree Programme Title	
Examiner (Full Name)	*(second examiner)*

Please assess the following aspects of the Interim Assessment against the criteria listed overleaf, and indicate your assessment in the table*:*

		poor	weak	fair	good	vg	exc
General Presentation	%						
Introduction to Project	*						
Quality of Background review	**						
Scope of Bibliography							
Presentation of Bibliography	%						
Extent of progress to date	%						
Appraisal of progress against plan							

Brief comments (in particular, a clear discrepancy between the overall mark and the tabulated assessment should be justified):

Overall Mark for Interim Assessment: _____%

Signed ..... *(examiner)* Date .....

DEPARTMENT OF COMPUTER SCIENCE
FINAL PROJECT – INTERIM ASSESSMENT

ASSESSMENT CRITERIA FOR EXCELLENCE

General presentation (% - lower weighting)

An excellent report will have a highly professional standard of presentation, consistently neat layout and minimal errors of grammar and spelling. The report will be logically sectioned, with attention paid to systematic and coherent use of type size and style for headings and occasional emphasis. [learning outcome 5]

Introduction to Project (* - raised weighting)

An excellent report will include a general introduction to its own structure and content, followed by an overview of project goals (as aims and objectives) and context. Significant aspects of the project context will then be highlighted, to demonstrate the relevance of the background review which follows. [1-3]

Background Review (** - higher weighting)

In an excellent report, each aspect of relevant background in turn will be described carefully and to appropriate depth, and cogently interpreted in relation to the project goals and processes, with formal references made to sources of information listed in the Bibliography. The order in which topics are addressed will form a logical and progressive narrative, with an appropriate balance of academic/technical and client/requirements issues considered. The material overall may be structured into more than one chapter if appropriate. [1-3]

Bibliography scope and presentation (% - lower weighting on presentation)

An excellent bibliography will indicate a wide scope of different research sources, including some or all of the following: academic papers, textbooks, technical sources, application domain-related materials, general contexts, in both traditional and modern media. All bibliographic references will be presented in full and linked to narrative consistently according to a recognised protocol, such as that advised in departmental literature. [1,5]

Extent and Appraisal of progress against plan

An excellent report will include a concise appraisal of project progress, related to the original time plan, with an intelligent commentary on variance allowing that some tasks may be ahead and some behind schedule. The original time plan and task summary list will be reproduced, together with a revised plan and discussion of new strategy if relevant. [1,3,4]

The time plan(s) will display all the tasks listed against the project weeks in which each will be active, in a rectangular chart. Additional task rows may be included to show the incidence of external time constraints (e.g. exam revision) and all calendar weeks should be included from start of semester 1 to end of semester 2. In a high quality report, the plan will demonstrate ability to use relevant software in its production, relate project weeks to calendar dates, and differentiate between developmental and management tasks, intermediate milestones and deliverable deadlines, etc. [3,4]

APPENDIX F – Example Assessment Report – Project Management

UNIVERSITY OF HULL
DEPARTMENT OF COMPUTER SCIENCE
FINAL PROJECT ASSESSMENT
(PROJECT MANAGEMENT)

Name of Student	
Project Title	
Degree Programme Title	
Examiner (Full Name)	*(supervisor)*

Please assess the following aspects of Project Management against the criteria listed overleaf, and indicate your assessment in the table*:*

		poor	weak	fair	good	vg	exc
Process organisation							
Independent working	%						
Regular liaison							
Project planning							
Problem solving							
Effort and motivation	%						

Brief comments (in particular, a clear discrepancy between the overall mark and the tabulated assessment should be justified):

Overall Mark for Project Management: _____%

Signed ..... *(examiner)* Date .....

DEPARTMENT OF COMPUTER SCIENCE
FINAL PROJECT – PROJECT MANAGEMENT

ASSESSMENT CRITERIA FOR EXCELLENCE

Process Organisation

An excellent student will be pro-active through the project period in setting the project schedule and arranging necessary meetings including the final presentation, and will meet module deadlines. Intermediate project milestones will also be well-managed, with attention to recovery from slippages. Meetings will follow prepared agendas*, including summary of recent progress and identification of next steps.

[learning outcomes 3,4]

Independent working (% - lower weighting)

An excellent student will demonstrate ability to make significant relevant progress with minimal prompting by others throughout the project, seeking advice and locating appropriate resources as and when needed. [1,3,4]

Regular Liaison

An excellent student will maintain effective, routine contact with the project supervisor and any external/other clients during the project period, through scheduled meetings and by email or other appropriate means as necessary. [3,4,5]

Project Planning

An excellent student will generate a meaningful initial project schedule of tasks and timings, and then maintain an overall perspective on project progress, anticipating future tasks and deadlines, identifying and reducing risk, so as to avoid, or prepare for, changes to the schedule as the project proceeds. [4]

Problem Solving

An excellent student will demonstrate ability to identify and characterise sources of difficulty during the project, and will perceive, develop and prioritise alternative resolution strategies, and may seek advice as necessary, before adopting one solution.

[1,4]

Effort and Motivation (% - lower weighting)

An excellent student will show motivation and solid regular progress throughout the project, having made timely effort to acquire a confirmed project topic, initiate a preparatory meeting, and subsequently to resume and maintain developmental momentum. [3,4]

---

* Outline Meeting Agenda

1. State purpose of meeting and identify/record those present, date and time
2. Review work to date and/or context of problem to be discussed
3. Discuss and resolve issues at hand
4. Specify consequent actions / work for next period
5. Fix date, time and venue of next meeting if required

APPENDIX G – Example Assessment Report – Project Presentation

UNIVERSITY OF HULL
DEPARTMENT OF COMPUTER SCIENCE
FINAL PROJECT ASSESSMENT
(PROJECT PRESENTATION / SOFTWARE DEMONSTRATION)

Name of Student	
Project Title	
Degree Programme Title	
Examiner (Full Name)	*(second examiner)*

Please assess the following aspects of the Project Presentation and Software Demonstration against the criteria listed overleaf, and indicate your assessment in the table*:*

		poor	weak	fair	good	vg	exc
Organisation of event							
Structure of content	%						
Effectiveness of presentation							
Engagement in dialogue							
Technical quality of content	*						

Brief comments (in particular, a clear discrepancy between the overall mark and the tabulated assessment should be justified):

Overall Mark for Presentation / Demonstration: _____%

Signed ..... *(examiner)* Date .....

DEPARTMENT OF COMPUTER SCIENCE
FINAL PROJECT –PRESENTATION / DEMONSTRATION

ASSESSMENT CRITERIA FOR EXCELLENCE

Organisation of event

An excellent presentation will be organised in good time by the student, fixing date, time and venue and arranging necessary facilities. The presentation will show evidence of considered preparation, and will run to time, lasting no more than 40 minutes including allowance for 10 to 15 minutes' dialogue of questions and clarifications. [3,5]

Structure of content (% - lower weighting)

The event will include a brief introduction of project title and intended agenda; an overview of project context, purpose and planned deliverables; discussion of results with demonstration of software; concluding with a critical appraisal of results and indication of possible further work. Provision will be made for questions and dialogue, either during or following the presentation, at the student's discretion. [5]

Effectiveness of presentation

An excellent presentation will be well prepared, clearly and confidently delivered, with a logical progression of issues discussed using appropriate supporting aids. Topics will be introduced in summary and be amplified with appropriate detail to convey each significant point within the time allowed. Investigative results and/or software produced will be presented sufficiently to demonstrate the level of success achieved in meeting the project goals. [5]

Engagement in dialogue

Prompt, thoughtful and fluent response will be made to requests for clarification and to more detailed questions raised by the examiners, during or after the presentation as the student requests. [5]

Technical quality of content (* - higher weighting)

The presentation of project results and demonstration of software will indicate a high level of technical competence applied to the project, conforming as appropriate to relevant standards of accuracy, resilience and usability. [2,3]

APPENDIX H – Example Assessment Report – Final Report

UNIVERSITY OF HULL
DEPARTMENT OF COMPUTER SCIENCE
FINAL PROJECT ASSESSMENT
(FINAL REPORT)

Name of Student	
Project Title	
Degree Programme Title	
Examiner (Full Name)	*(supervisor)* *(second)*

Please assess the following aspects of the Project Final Report against the criteria listed overleaf, and summarise your assessment in the table*:*

		poor	weak	fair	good	vg	exc
Report structure and presentation	%						
Project context, analysis, goals							
Background understanding							
Quality of Bibliography	%%						
Technical achievement	**						
Critical evaluation							

Brief comments (in particular, a clear discrepancy between the overall mark and the tabulated assessment should be justified):

Overall Mark for Final Report: _____%

Signed ..... *(examiner)* Date .....

DEPARTMENT OF COMPUTER SCIENCE
FINAL PROJECT – FINAL REPORT

ASSESSMENT CRITERIA FOR EXCELLENCE

Report structure and presentation (% - lower weighting)

An excellent report will have a highly professional standard of presentation, consistently neat layout and minimal errors of grammar and spelling, with attention paid to systematic and coherent use of type size and style for headings and occasional emphasis. The report will be logically sectioned, with a table of contents, abstract, cogent introduction, appropriate background and process chapters, and concluding reflective appraisal. Illustrations will be neatly prepared and positioned appropriately in relation to their relevant narrative discussion – in line or cross-referred to an appendix. Large or complex diagrams or data tabulations will be presented as appendices, with suitable illustrative extracts placed within the narrative if it aids understanding. [learning outcome 5]

Project context, analysis, goals

An excellent report will clearly introduce the project context in outline, present a cogent overview of the issues involved and state the project goals (aims and objectives). Later, the report will include a deeper discussion of the broad context, a thorough analysis of the specific application domain and requirements, and identify the technical principles, tools and methods to be applied. This discussion will be supported by appropriate examples, illustrations, and references. [1-3]

Background understanding

Discussion will demonstrate a breadth of awareness and solid understanding of relevant principles and techniques. Full source references will be made to background material on all significant issues concerned, including traditional and formal academic sources. A high class report will be further strengthened by a critical appraisal of the problem domain. [1-3]

Quality of Bibliography

An excellent bibliography will indicate a wide scope of relevant research sources, including some or all of the following: academic papers, textbooks, technical sources, application domain-related materials, general contexts, in both traditional and modern media. All bibliographic references will be presented in full and linked to narrative consistently according to a recognised protocol, such as that advised in departmental literature. [1-3]

Technical achievement (** - higher weighting)

An excellent project report will demonstrate a high level of technical achievement, in the formal processes followed and standard of technical deliverables. Software will be solidly designed, engineered and documented, showing insight and flair, and will be robustly and efficiently implemented to meet all requirements with an appropriate and effectively styled user interface, user and system documentation. Non-software development aspects will be equivalently professional and thorough in their conduct and final delivery, for example well-evidenced and -argued conclusions of investigative research, showing insight and flair. [1-4]

Critical evaluation

All aspects of the project process and outcomes will be reflectively reviewed, considered against relevant standards, and appraised relative to stated goals. Opportunities for further refinement will be discussed and potential future developments identified and appraised. Within this critique, an excellent report will further demonstrate insight, depth and breadth of understanding of the discipline.

[1-3]

APPENDIX I – Module Specification

08341/08349 Project

Module Leader: Dr J D Rayner

No of Credits 40

Level: 6

Semester Available: 1 and 2

Aims and distinctive features:
To develop the student's ability to complete a substantial piece of problem-solving practical work. To develop and demonstrate the student's abilities in organising, documenting and producing a non-trivial piece of software, starting from a brief outline of expectations and delivering a documented program product which is demonstrated. Alternatively, to develop and demonstrate the student's abilities in organising, pursuing, and presenting an analytical investigation of an advanced topic appropriate to the student's degree programme, and including an element of software development.

On successful completion of the module, students will be able to demonstrate:

- Detailed knowledge of their chosen area of work, and awareness of its broader context within the field of their degree programme, including professional and ethical aspects
- Competence in the pragmatics of software development and/or research methodology
- A practical grasp of project management and time management techniques, in the particular context of software development and/or research investigation and analysis
- Ability to develop and produce a substantial report and other relevant project documentation
- Ability to present project outcomes and to discuss conclusions

Learning Outcomes:
On successful completion of the module, students will be able to:
Intellectual Skills

1. Investigate relevant material, software, tools and techniques, including critical evaluation of requirements, alternative solutions, and achievements.
2. Demonstrate conceptual understanding of relevant principles and techniques, some of which may be at the forefront of the discipline, and describe, using informed insight, the broader context of a topic.

Practical Subject-Specific Skills

3. Demonstrate a professional, structured approach to the analysis and/or development of non-trivial software or systems, using appropriate tools and environments, and including project management, documentation, and legal and ethical aspects.

Transferable Skills

4. Plan and conduct methodical project work including independent research and practical problem-solving.
5. Communicate ideas clearly in written and/or spoken form.

Learning and Teaching Strategy:
Formal Contact Time: weekly meetings with project supervisor plus about three project module support lectures per semester.
Private Study: 380 hours of project research and development time.
Revision: Supervisory advice on construction and refinement of Project Report.

Assessment strategy:
Written assessment evidence (Initial, Interim, Final) will be assessed by the Supervisor and/or a second examiner. The supervisor will assess Project Management characteristics and the second examiner will assess the Presentation. This process is designed to provide a range of formative feedback in the early stages, and moderation of the major Final Report element.

The project is a portfolio of work considered as one assessment, even though it is composed of many overlapping elements (e.g. initial report, interim report, project management, dissertation and demonstration). Although marks are internally assigned to each element, the final mark for the project portfolio is a summation of all marks. Failure to submit a component is not specifically penalised, other than by lowering the overall mark.

Evidence	Learning Outcomes	Weighting
Initial Report	1-5	5
Interim Assessment	1-5	5
Project Management	1-5	5
Project Presentation	2, 3, 5	5
Final Report	1-5	80

The assessment will be non-anonymous as the student will make a personal presentation and is known to their project supervisor (the first assessor). The assessment is moderated by independent assessors. The project is a **non-compensatable** module.

Method of Reassessment:
Project Report and Demonstration (100%)

Pre-requisites: None

Concurrent Module: None

Post-requisites: None

Excluded combinations: None

Advisory constraints: None

Indicative contents:
The module is designed to allow students to show, over two semesters, their all-round ability to tackle a substantial piece of computer-related investigation or software design and development work, to demonstrate project- and time-management skills, and to bring the task to a successful conclusion with a quality report, documentation as appropriate, and presentation.

Each project is designated individually for each student, although collaborative projects may be allowed, so typically within the overall context the actual work done may vary widely between different projects. Each student is supported and guided in their project work by an academic supervisor, and assessment of deliverables is made by two examiners, one of whom will normally be the supervisor.

Arrangements for determining project topics for each student are managed each year by the Project Module Leader, normally in advance of commencement of each student's Honours Stage. Students may choose from a range of topics put forward by the Department, or propose their own topic subject to approval for adequate depth and breadth of potential. Project Supervision is delivered by one member of lecturing staff designated per student.

Recommended Texts:
Projects in Computing and Information Systems, A Student's Guide, Dawson, CW, Addison Wesley, 2005
The Essence of Computing projects – A Student's Guide, Dawson, CW, Prentice hall, 2000
Communication Skills for Information Systems, Tony Warner, Pearson, 1996.

Business Computer Ethics. Langford Duncan, Harlow: Addison Wesley, 1999

The Essence of Professional Issues in Computing, R Ayres, Prentice Hall, 1999.