Procedure

Title: Administering Project work to the following student groups:

- BSc. (Ord) in Computing (Software Development) Yr. 3
- BSc. (Hons.) in Computing (Software Development) Yr. 4
- BSc. (Hons.) Web Development Yr. 3
- BSc. (Hons.) Web Development Yr. 4
- BSc. (Ord.) Computing (Systems & Networking) Yr. 3
- BSc. (Hons.) Computing (Systems & Networking) Yr. 4
- BSc. (Ord.) Computing (Database) Yr. 3
- BSc. (Hons.) Computing (Database) Yr. 4

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Purpose:

- To detail the role of the Supervisor
- To detail the role of the student
- To explain the assessment of a Project

Date:

Initial draft: 02 March 2007
Revised: 9-September 2010
Added rubric, workshop details, minor corrections.
Revised: 24 September 2008
Incorporated group work procedures.

Introduction:

Each of the above courses has as a mandatory subject on their course schedule the completion of a Project. This subject attracts the same ECTS credits (10 credits) as the other subjects on the schedule
The Project subject runs for the full duration of the academic year. In the case of the Ordinary degrees, the academic year is shorter due to the mandatory placement element.

Significant Dates:

	BSc. (Hons.) Computing Yr. 4 **BSc. (Hons.) Computing (Web Development) Yr. 4**	**BSc. (Ord.) Computing (Software Development) Yr. 3** **BSc. (Ord.) Computing (Systems & Networking) Yr. 3** **BSc. (Ord.) Computing (Database) Yr. 3**
Project Introductory talk	Start 1st week Sept.	Start 1st week Sept.
Post Project Webspace	Before Proposal Due date	Before Proposal Due date
Project Proposal due	End 3rd week Sept.	End 3rd week Sept.
Formal idea approval	Less than 1 wk later	Less than 1 wk later

Interim Presentation	1st week post-Christmas	1 week before Christmas exams
Project Hand up	Late April	Early March
Project Final Presentation	Early May	Mid March

Project Proposal

Before a Student commences work on a Project, it is necessary to submit and gain approval for a Project Proposal. This is a formal document outlining the work the Student intends to undertake. It is advised that the Student consult with various lecturers (perhaps the originators of the idea) to ensure that the Proposal is neither overly ambitious nor under-developed. When completed, the Proposal is submitted to the Project Administrator who will seek approval for the Proposal from the appropriate lecturers. This approval or rejection will take no more than 1 week though should be significantly quicker depending on the nature of the Proposal. Feedback will be provided or a contact arranged to discuss a resubmission or to advise on minor changes. Often Projects are un-necessarily delayed by weak or ill-conceived Project Proposals.
The Student must create a webspace to host their Project details. This must be completed as part of Project Proposal but may be additionally benefit beforehand to help lecturers assess your idea(s). Typically, this will take the form of a blog.

Scaling Factor (SF)

The mechanism of a scaling factor is employed to address a particular problem with project approvals. We recognise that there are differing standards of competency among students and also of ambition for a Project. For some students, a Project that is recognisably achievable using skills already acquired though not yet fully exploited is a preferred choice. For others, the prospect of charting new territory where the risk of pitfalls and dead-ends is greater, represents an attractive challenge.
The SF is an attempt to create a level playing field for all choices of Project. Your Proposal will be assigned a SF reflecting the difficulty of your choice of Project with respect to your known background and tuition. The SF will be in the range 0 to 1, though typically in the upper reaches of that range. A SF of 1 reflects a choice of Project that is at the extent of what is reasonably expected from a competent student. The Project's final mark will be multiplied by this SF. In the case of a SF of 1, this means the final mark is unaffected.
Take the case of a Student proposing a project involving technology which is taken to be well known to the candidate having been a key feature on earlier years. The Project Proposal might involve applying this knowledge on a larger scale and/or introducing/repackaging (as a minor role) some other newer technologies. A SF of .8 might be applied. A final mark of 70% would therefore be scaled to 56% to compensate for the difficulty (or lack of) of the Proposal.
The SF is reviewed at the Interim Presentation stage and may be increased or decreased. Such changes are communicated to the Student who may agree to incorporate some added complexities to increase the SF closer to 1. However, failure to deliver on the re-stated objectives will result in a lower final mark which even after applying the SF will still be a lower overall result.

Assigned Responsibilities

Project Administrator

An appointed project administrator will manage the projects as a whole. This will include:

- maintaining a register of projects including inter alia:
    - project title
    - project members
    - description
    - proposal document
    - marks
    - feedback regarding presentations
- records of past projects for reference
- co-ordinate facilities and staff for presentations
- ensure consistency of treatment and marking across programmes
- promote project work within the college community and outside

Supervisor

Each Project will be assigned a Supervisor. In the case of Projects involving a group, the Supervisor will meet with the group as a whole or a delegation thereof. The role of the Supervisor is to:

- guide and direct appropriate courses of action
- advise on research skills
- act as a sounding board for ideas
- identify future pitfalls
- provide encouragement to achieve personal goals
- interpret feedback from presentations and relate to student
- help identify priorities
- monitor work progress and advise accordingly
- meet regularly with students to appraise progress
- assist at presentations of his/her students

It is not the role of the Supervisor to:

- substantially debug code
- do research on behalf of the student
- ‘chase’ students to ensure attendance at meetings

Student

The project is largely an independent body of work. Support is provided primarily through the assigned Supervisor, an interim presentation feedback, and a project community webspace. The role of the student is to:

- adhere to Project deadlines
- attend regular meetings with Supervisor
- provide timely and generous information regarding ongoing work
- respect copyright on protected material and affirm originality of work submitted

Assessment

Each Project is assessed at two stages during the academic year: at Interim Presentation and Final Presentation. A schedule for presenting is posted and some accommodation for necessary absences by students will be made. Attendance at the Final Presentation is mandatory and a FAIL mark is recorded if absent without prior consent.

The assessment panel will:

- consist of a quorum of no less than 2 lecturers
- endeavour to ensure that the Supervisor for a Student is present, though this cannot be guaranteed.
- provide ample opportunity for the student(s) to convey the workings of the Project. In the case of the Interim Presentation, a cap of 15 minutes is imposed on the time available to the student. However in all presentations, the period may be extended to 40 minutes should the assessment panel wish to explore the Project further.
- work to ensure a cordial and relaxing setting for what is a formal assessment forum.
- ask such questions as are necessary to fully assess the level of accomplishment and understanding by the Student of the Project. This may require interrupting the student's explanations in order to better utilise the available time and avoid redundant discussions.
- reserve the right to quiz the student on the originality of the work presented
- provide timely feedback mediated by the Student's Supervisor. In the case of Final Presentation feedback, there will inevitably be a delay until Examination Boards have approved results.

Group Work

Project work may be completed by an individual or student may team together to form a group. It is envisaged that teams not exceed 3 in size and may be drawn from across disciplines subject to approval.

Group work is to be encouraged as it gives rise to a more realistic undertaking reflective of real-world conditions. However, participants should consider the challenges inherent to this approach. The work spans many months and students should be aware of the pressures this places on the working relationship. Communication is fundamental to the working of a group and so provision will need to be made to ensure the group functions as a cohesive unit. Otherwise, productivity will suffer and accordingly the score.

Generally, the score awarded to the group will be afforded to each individual member. The scoring will take into account the size of the group as well as the other factors outlined below.

In the event of a dispute or concern on behalf of the supervisor regarding the contribution of a member of the group, the member in question will be interviewed by the supervisor with a view to remedial action by that member. For the benefit of the team effort, it is important that such concerns be brought to the attention of the supervisor from an early stage. This initial interview will be viewed as a formal warning.

Should the problem persist, a second warning will be given. It is typically in everyone's interest to maintain the integrity and work of the group to date so effort is made to ensure the group is preserved.

One solution for assessing group work where the contribution by each member is not seen to be equal by all members is to formulate a score-sharing scheme. This scheme decides on the share of the overall mark that each member is entitled to. The

determination of each individual's contribution may be arrived at through individual interviews and examination of the work done. The exact share for each member is derived from discussions between the supervisor and group members, both on an individual basis and as a group. While a consensus is desirable and will be sought, the supervisor will have the final word on the distribution of overall mark.
It should be noted that these interventions may be initiated by either a group member or the supervisor independently.
Notwithstanding the above points, at the presentation stage a decision may be made to distribute the final mark in a non-equal proportion should the evidence suggest that an individual (or individuals) show a major lack of understanding of the work or contribute in a less than equal manner to the overall submission.

Change of Project

Most Projects will undergo change as the idea evolves or the deliverables expand or contract as the Project is better understood by both the individual (or group) and supervisor. This is normal and the nature of the deliverables will be formed in your discussions with your supervisor and *with approval* of your supervisor.

To fundamentally alter the scope of the Project is usually discouraged. Your Project idea is scrutinised upon approval to ensure that the work is appropriate and within the range of what is reasonable to attain at the stage of study in question.
Beginning a new Project some weeks late can have a significant effect on the later result as time is a factor. Most Projects can be adapted or constrained according to progress – this may have an impact upon the overall score but is typically less than that suffered by a complete restart.

Marking Scheme

The marking schemes are:

BSc. (Hons.) Computing (Software Dev.) Yr. 4 **BSc. (Hons.) Web Development Yr. 4**	**BSc. (Ord.) Computing (Software Development) Yr. 3** **BSc. (Ord.) Computing (Database) Yr. 3** **BSc. (Hons.) Web Development Yr. 3**
Research 20% Implementation 45% Interim Presentation 5% Final Presentation 10% Documentation 20%	Research 20% Implementation 50% Interim Presentation 5% Final Presentation 5% Documentation 20%
BSc. (Hons.) Computing (Systems & Networking) Yr. 4	**BSc. (Ord.) Computing (Systems & Networking) Yr. 3**
Literature Review 20% Methodology 20% Content 30% Presentation 10% Conclusion 10% Personal Initiative 10%	Research 20% Implementation 40% Interim Presentation 5% Final Presentation 5% Documentation 30%

Research

This assesses the relative complexity of the Project with respect to the academic background of the Student. Given the nature of study the Student has already undertaken, does the Project represent a major departure from the material already encountered? Does it represent a move to new or emerging technologies about which little is known or has been taught to the Student? This mark also reflects the level of understanding exhibited by the Student through all the channels available to him/her: oral presentations, supervisor meetings, documentation and the Project itself.

Implementation

This assesses the quality of the delivered Project. It reflects the technical achievement and ingenuity of the submission. Does the Project achieve its stated objectives? Does it do so in innovative and/or efficient ways? Does it depend heavily on the work or others? Taking into account the stated objectives of the Project, does it rank well with respect to normal software quality factors or respected industry standards (e.g. in the case of network design)? For example, were the Project proposed a game, then factors such as interface design, engagement, fun-factor, and stability would be heavily weighted.

Interim Presentation

This assesses the Student's progress to date. Students should show good understanding of the scope of their objectives, have a thorough grasp of the timescales around those objectives and have competency in discussing the technologies surrounding the Project. Depending on the Scaling Factor, actual deliverables might be expected at this stage. It is expected that the Student be prepared for the presentation. This involves the gathering of suitable material to illustrate their work to date, samples of similar work or prototypes of their own, preliminary documentation and time management. A short oral presentation of less than 5 minutes is required followed by approximately a 15 min discussion. This short presentation should be carefully crafted to concisely describe the Project to those not familiar with it.

Final Presentation

This assesses the ability of the Student to present his/her ideas. Critically, it affords the Student a final opportunity to inform the assessment panel of the work accomplished and to ensure that full appreciation of the Project is recognised. It is important the attention of the panel be drawn to the Student's accumulation of knowledge and skills. The Student should present a clear, comprehensive and coherent analysis of his/her achievements. Students may be quizzed on particular aspects of their work and their responses will be factored into the assessment.

Documentation

Documentation is the permanent record of the Student's work. It must be comprehensive, intelligible and provide a basis for future exploration of the Project. The structure of the documentation is important to ensure readability. Copious charts, graphics, screenshot, schema or similar supporting material should be included. The quality of writing is also a factor as are page presentation, layout, indices, pagination, and bibliography. In the case of a Bibliography, it is essential that an extensive and complete set of entries is provided to ensure the provenance of the work can be explored. A signed declaration must be included at that start of the documentation to affirm the originality of the work by the

Student. Any material documented or included in other submitted work must be clearly cited in the Bibliography and that entry referenced in the text.

Failing the Project

Failing the project is thankfully a rare occurrence given the supervisor input throughout the year. It is very much in your own interest to maintain constant communication with your supervisor as he/she will provide valuable advice and direction to assist in avoiding a fail mark.

You should regard the presentation of your project at year-end in the same way as a final examination. If you are unable to attend due to extenuating circumstances (illness, family concerns etc.), you may consider applying for a deferral ahead of time to your Head of Department. If such a deferral is successfully awarded then you can submit the project with the autumn repeats. In this case, your autumn result is not 'capped' at a pass mark and you can still (other modules notwithstanding) achieve an overall grade of higher than PASS.

If, however, you present your project at year end (either Easter for Level 7 or Summer for Level 8), the result awarded to you stands and a deferral is not an option. There are however very exceptional circumstances whereby your awarded mark may be with-held by the examination board for consideration at a later stage.

Repeating

If you either fail the Project or have been awarded a deferral, you can submit the project in the autumn. You will be notified that you have failed the project before the summer break. It is very important that you meet with your supervisor to discuss your plans for the submission *before* the summer break. He/She will give guidance as to how to approach the work. If you seek to change your project idea this can *only* be done in consultation with your supervisor or Project coordinator.

You should take note that the college summer break will mean that much equipment, software, and supervisor access will become unavailable. You may well additionally be on industrial placement (often at a distance from the college) and your time committed elsewhere. For these reasons (among others), you should make every effort to address any problems that emerge with the project during the course of the year.

For either projects deferred or failed at the first sitting, you will be required to submit the Project by Sept. 1st (or next business day thereafter if this is a weekend). The submission should follow all the standards laid out on the Project web site (http://jk.itsligo.ie/project) and if submitted by hand, you should have it signed for and dated by the School of Business secretary or receptionist. If sent by email, you must presume it to be submitted only if you receive a confirmation from your supervisor or project coordinator.

You are additionally required to attend the college to make the presentation of your work. There is some flexibility in the scheduling of this to facilitate those working or travelling a distance. You must contact your supervisor or project coordinator to arrange a time. In any case, this presentation must occur at least 3 days ahead of the autumn examinations board for that year. This would typically mean a presentation within the first week of September. You will be issued a result following the autumn examination board.

Workshops

During the year, and in particular in the first half, a number of workshops will be provided. Initially, the topics will include:

- general Project guidelines, deadlines, format, formal proposal, supervisor duties etc.
- generating of ideas for projects – showcasing past year projects, discussing ideas for new projects.
- Dissertation writing – usually provided nearer the end of the year to better assist thesis writing at that point
- Technology update – to bring to the attention of students technologies other than those experienced in class and for which there is industry support or interest.

Project Rubric

By way of guidance to examiners and also to students, a rubric is provided. Essentially, a rubric is a scoring tool that lists the criteria that inform the eventual mark.
A copy is reproduced here and can be found on the Project web site (http://jk.itsligo.ie)

Project Rubric 2009-

	Beginning	Developing	Accomplished	Exemplary
Thesis/Problem/ Question	Student(s) relied on teacher-generated questions or developed a question requiring little creative thought. Project reflected a rudimentary problem similar to in-class assessment.	Student(s) constructed a question that lends itself to readily available answers. Though project requirements satisfied, they are limited and represent a modest challenge to student.	Student(s) posed a focused question involving them in challenging research. The project area targeted a set of issues or an application domain of depth affording an involved solution.	Student(s) posed a thoughtful, creative question that engaged them in challenging or provocative research. The question breaks new ground or contributes to knowledge in a focused, specific area.
Information Seeking/ Selecting and Evaluating	Student(s) gathered information that lacked relevance, quality, depth and balance. Little or no evidence of comprehension or appreciation of the questions posed by the chosen topic.	Student(s) gathered information from a limited range of sources and displayed minimal effort in selecting quality resources. Identified literature was elementary or did not adequately address the problem domain.	Student(s) gathered information from a variety of relevant sources--print and electronic. Proper industry tools/libraries were identified and employed to limited success.	Student(s) gathered information from a variety of quality electronic and print sources. Sources are relevant, balanced and include critical readings relating to the thesis or problem. Primary sources were included (if appropriate).
Analysis	Student(s) conclusions simply involved restating information. Conclusions were not supported by evidence. Student showed little appetite for comparing alternative solution paths.	Student(s) conclusions could be supported by stronger evidence. Level of analysis could have been deeper. Simplistic solutions were analysed without reference to limitations or naive view taken of problem domain.	Student (s) deliverable shows good effort was made in analysing the evidence collected. Insight shown (though perhaps not clearly elucidated) into alternatives and their suitability in supporting the given solution.	Student(s) carefully analysed the information collected and drew appropriate and inventive conclusions supported by evidence. Voice of the student writer is evident. Possible solution paths well drawn and pro/cons made explicit.
Synthesis/ Implementation	Student(s) work is not logically or effectively structured. In software, deliverables are poorly executed and show naivety in employment of key technolgoies.	Student(s) could have put greater effort into organizing the deliverable. In software, requirements are poorly interpreted or loosely implemented without regard to objectives.	Student(s) logically organized the product and made good connections among ideas. In software, appropriate libraries/algorithms are identified and reasonably well applied.	Student(s) developed appropriate structure for communicating product, incorporating variety of quality sources. Information is logically and creatively organized with smooth transitions. In software, best practice is employed in addressing project requirements.
Documentation	Student(s) clearly plagiarized materials, or documentation inadequately describes work undertaken/knowledge acquired.	Student(s) need to use greater care in documenting sources. Documentation was poorly constructed or absent. Focus was on rudimentary or non-core project elements.	Student(s) documented sources with some care, Sources are cited, both in-text/in-product and on Works-Cited/Works-Consulted pages/slides. Few errors noted. Write-up addressed some/all technological challenges well/satisfactorily.	Student(s) documented all sources, including visuals, sounds, and animations. Sources are properly cited, both in-text/in-product and on Works-Cited/Works-Consulted pages/slides. Documentation is error-free. Write-up exposed insights or significant knowledge acquired during research.
Presentation	Student(s) showed little evidence of thoughtful research. Product does not effectively communicate research findings. Little grasp of industry terms/key technologies and/or lack of awareness of possible solutions.	Student(s) need to work on communicating more effectively. Some preparation in evidence but probing questions went unanswered.	Student(s) effectively communicated the results of research to the audience. In software, demonstration was evidently rehearsed to showcase the work.	Student(s) effectively and creatively used appropriate communication tools to convey their conclusions and demonstrated thorough, effective research techniques. Deliverables display creativity and originality.