B.Sc. Honours in Computing  
in the Department of Computing, Mathematics and Physics.

PROJECTS 2011-2012

Project Guidelines

There are six B.Sc. honours computing programmes in the department and these notes apply to all of them. Each course may have its own web site or written handbook to issue advice that augments, but does not usually contradict the regulations set out below:

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# 1. ASSESSMENT CRITERIA

Each project will be assessed based on the following criteria:

## CORE CRITERIA

* light-weight, relevant modeling, generally in accordance with a recognised process and mostly expressed in UML. (15%)
* project-related communication including, but not limited to: keeping appropriate logs, writing well-constructed formal reports, maintaining sketches of ideas in diagrammatic/written form in UML or otherwise.  (15%)
* implementation based on the modeling and the content of the reports. (30%)
* appropriate mix of (a) originality, (b) innovation and (c) complexity (25%)

## CRITICAL SELF-REVIEW

* what you learned (5%)
* what you achieved, and in what direction the project might be taken if more time was available (5%)
* how problems were addressed and solved (5%)

In addition, you must attend all relevant demonstrations, presentations and key meetings with your supervisor.  There are no marks allocated for these, but failure to attend, without good cause, will disrupt the assessment procedure and may cause you to fail.

# 2. STRUCTURE OF THE PROJECT AS A SET OF TWO MODULES

The body of work constituting "the project" is divided into two distinct modules, each of which is assessed independently of the other.  Generally, the first module has an emphasis on requirements gathering and technologically prototyping your project.  The second module puts the emphasis on implementation.  That said, many modern software development processes do not force an up-front requirements gathering nor a delayed start to implementation.  For that reason then, you MUST justify the stage you've reached in your project at the end of the first module, with reference to the process you have chosen to follow.  In other words, we will be interested in how well you've followed your chosen process.

# 3. PROJECT PROPOSALS

You are invited to make project proposals on an individual basis.

Proposals may be accepted or rejected by the Head of Department or by staff that he appoints.  If a project proposal is rejected on the grounds that it falls short of the standard required, a project will be allocated based on a pre-defined body of work.

There is no easy way of writing down what will cause a project to fail to be of the standard required.  Every case must be considered on its merits.  What can be said clearly, however, is that any proposed project that would consist of a database backend, a web front end and a middle layer that would do little else than allow data to flow   
from the database to the web interface or from the web interface to the database would not be acceptable.

Any approved project must be proposed as one that will do much more than that or something entirely different from that. Each approved project will be allocated a serial number, a supervisor and a second reader.

The due date for proposals will be Tuesday, 20 September 2011.

# 4. PROJECT ADMINISTRATION AND ACADEMIC SUPERVISION

In addition to your supervisor and second reader, you'll have a project coordinator for your own programme.

* F Walsh (B.Sc. Hons AC programme)
* I Downey (B.Sc. Hons SSD programme), see  B. Mullally while Ian is absent.
* I Downey (B.Sc. Hons Forensics programme), see J. Sheppard while Ian is absent.
* TJ McDonald (B.Sc. Hons IT programme)
* S O'Riordan (B.Sc. Hons MM programme)
* R O’Connor (B.Sc. Hons Entertainment Systems programme)

In addition to his role as coordinator of the B.Sc. Hons SSD programme, Ian Downey has a few other duties such as drawing up examination timetables and collecting the abstracts and photographs for the project book published at the end of the year.

This book is made available to future employers and others at the Student Fair at which you have the opportunity to show your projects.  See also section 12 below.

# 5. REPORTS AND OTHER DELIVERABLES

You will be required to write formal reports on your project on five occasions throughout the academic session.  These reports will be required as follows:

Report 0: Project Proposal on 20 September 2011   
Report 1: 4 November 2011  
Report 2: Abstract and Photo 25 November 2011

Report 3: 2 December 2011  
Report 4: two weeks before the first day of project demos, in hardcopy, via moodle and possibly on computer disc.  
  
Report 1 will be accompanied by a technological feasibility study in which you show that the various technologies to be used in your project, both hardware and software, work together.  The word show in the last sentence is to be taken literally.  In other words you build a working technological prototype using the relevant software/hardware.   
  
If the project is being done in an iterative, incremental and evolutionary manner, this first report may contain the first attempt at a plan for release of the project, in a number of iterations, each of which aims to be of production quality but that will be (a) re-factored and possibly (b) changed to reflect a more mature idea of what the users want, just before the next iteration is started.

If appropriate, the first report will be accompanied, not just with a technological prototype, but also with the technological prototype partially or completely fleshed out with code for the first iteration.

The second report due will show some more evidence of implementation.    
  
The coordination team for a given course may issue more detailed instruction as to hand-up dates, but, ordinarily, will not change the spirit of any of the above rulings.

The detailed contents of these reports will be based on:

(a) a discussion with the group's supervisor.    
(b) guidance/instruction that may be issued by the coordinating team for your own particular B.Sc. programme.  
(c) the developmental stage that the group's chosen methodology indicates that the group should have reached at the time in question.

# 6. DECLARATION OF AUTHENTICITY

On the first inside page of any report, you should have printed out the following declaration, and, in the case of any hard copy, this is to be signed and dated by the project participant.

In the case of one person undertaking the project, the text above should read:

Except where explicitly stated, this report represents work that I have done myself. I have not submitted the work represented in this report in any other course of study leading to an academic award.

# 7. EXAMINERS AND PROJECT EXAMINATIONS

There will be four examiner categories:

(a) the supervisor  
(b) a second reader, who will usually be a supervisor of other projects  
(c) other examiners that may examine your project during the final demonstration  
(d) the external examiners

# 8. MEETINGS THROUGHOUT THE YEAR

Usually each project student will have a weekly meeting with his or her supervisor during which he or she will show his/her progress, emphasis being placed on risk-reduction from week to week as issues associated with (a) project requirements gathering, (b) technologies and (c) skills building are addressed. 

Each meeting must be logged perhaps simply by a brief exchange of emails between group and supervisor after the meeting outlining what was agreed and what is to be done for the next meeting.  It may be appropriate to implement this log in the form of a blog.

If either the supervisor or the student is unable to keep a project-related appointment, the other party will be informed as soon as possible.  Naturally it will be rare for such cancellation to take place.

# 9. PROJECT ABSTRACTS, CLASS WEB SITE, AND PRINTED PROJECT BOOK OF ALL THE PROJECTS

A project abstract of between 300 and 500 words is required together with a personal digital photograph in jpeg format.

A professional/academic title of the project should be chosen at this stage in addition to an optional "commercial" title.  An example of a professional/academic title might be "distributed library book retrieval system".  An example of an optional commercial title might be FindThatBook.com.

The abstract MUST be provided on or before the due date.

Please see the page on Project abstracts, for more details.

The reason for the abstract and photograph is so that a departmental web site can be prepared with details of all the projects being undertaken by fourth year students.  Your project work is a very important activity within the Department of Computing, Mathematics and Physics and the work that you put into your projects   
is valued accordingly.  You will have opportunities to update the web site during the academic year.

In addition, the abstracts and photographs will appear in the full colour project book issued at the end of the year.  This book will be based on the web site.  Please ask for your own copy of last year's book, to better understand its purpose.

10. PROJECT ARCHIVING

Fourth year projects may be archived, as part of the Institute's efforts to provide a repository of the interesting and valuable work carried out by its members.

# 11. PROJECT FINISHING DATES

The pre-Christmas module will have an oral examination/demonstration on 8 and 9 December 2011.  
  
12. PROJECT ADMINISTRATIVE WEB SITE

Each staff member and student involved with projects is required to be familiar with moodle and all its updates.  In addition each person is required to be familiar with the relevant individual course moodle facility (if any) and all its updates.  It is recommended the web sites/moodle are reviewed once a week or more.

These notes were drawn up, in September, 2011, by the committee of project co-ordinators across the honours B.Sc. programmes, namely:

F Walsh (B.Sc. Hons AC programme)  
I Downey (B.Sc. Hons SSD programme)  
I Downey (B.Sc. Hons Forensics)  
TJ McDonald (B.Sc. Hons IT programme)  
S O'Riordan (B.Sc. Hons MM programme)

R O’Connor (B.Sc. Hons ES programme)  
Dr Mícheál Ó hÉigheartaigh, Head of Department