The Final Year Project

- The final year project is an important part of the course - it is a quarter of the final year's work
- The project is a substantial piece of work for which you are responsible
- It is a chance to explore a topic in depth and to take the initiative in developing your ideas and finding out the information you need

Projects Provide

- An opportunity to show what you can do – the project is what you make of it
- A challenge
  - Projects are meant to stretch you
  - Projects are often "open ended"
- A chance to explore a specific area in depth

Types of Projects

- To meet these aims, we provide three types of project
- These types describe the scope of the project
- The aim is to provide a challenge – but one which can be met
Types of Projects

Projects are classified according to the qualities we expect from different degree classes

- **Development Projects**
  - Qualities expected from anyone with a computer related degree
- **Problem Solving Projects**
  - Additionally, qualities expected from students with a second class Honours degree
- **Research Projects**
  - Additionally, qualities expected from students with a first class Honours degree
- Marks of 70+ are possible for all projects, but some offer more scope for the highest marks

Development Projects

- Are aimed at those on a second year mark less than 60
  - Straightforward projects
  - Implement a closely specified solution to a problem
  - In this style of project *both the problem and the solution should be understood*, so that the student contributes a realisation of this solution
  - Evaluation will be primarily concerned with the quality of the product produced

Example Development Projects

- Implement a business to business e-commerce site in MySQL and PHP
- Implement a fully specified algorithm or system (e.g., a utility to perform file synchronisation across different PCs – different operating systems)

Problem Solving Projects

- Can be taken by any student
  - Less straightforward projects
  - Not as closely-defined as development projects
  - For this style of project *the problem will be formulated, but the student will need to contribute to the finding of a solution*, and to choose between alternative solutions
  - Evaluation will relate both to the choices made, as well as to the product produced
  - **WBL projects** are considered to be of this type
Example Problem Solving Project I

- **A Remote-control Handset Application for PalmOS Devices**
  - This will be an application that will turn a PalmOS device into a remote control handset (e.g. for DVD, TV etc.)
  - The key-characteristic will be that it should be reconfigurable to match the layout of a variety of existing remote control handsets

Example Problem Solving Project II

- Given a temporal logic formula, there are a number of ways in which the truth or falsity of the formula can be established
- A particular approach developed within the Department is that of using *clausal temporal resolution*. An efficient system based on this approach has been implemented; this is called TRP++ and it is implemented in C++. While the TRP++ is efficient, it is not yet easy to use.
- Thus, the aim of this project is to develop an appropriate and usable user interface for the system. This should incorporate […]. All this should be provided within an appropriate Java interface.

Research Projects

- These are aimed at students who achieve more than 60 in the second year
- Those with more than 75 in the second year will be expected to undertake a project of this type

Research Projects

- Students attempting this style of project will be *expected to contribute to the formulation of the problem as well as its solution and implementation*
- Evaluation should play a key role, offering considerable scope for the exercise of critical judgement, placing the contribution fully in the context of related work, in addition to evaluating the choices made, and the quality of the product produced
Example Research Project I

Adaptive Binarisation of Scanned Documents
• Before attempting to recognise the text, the foreground (printed information) must be separated from the background (paper)
• In modern documents this is usually a case of separating black (printed information) from white (paper). In historical/rare documents, however, the paper has decayed and its colour is not uniform, […]
• This project will require the review, implementation and comparison of two or three of the most prominent adaptive thresholding algorithms in the context of historical documents

Example Research Project II

Metrics for Legal Theory Coherence
• Bench-Capon and Sartor (2001) describes a means of measuring the coherence of legal theories. A crude prototype of a program exists, but it is not easy to use.
• In this project this program will be re-engineered to produce a usable tool for representing the theories and producing the metrics.
• An existing theory construction tool will then be used to construct competing theories in the domain to explore the usefulness of the proposed metrics.

Specifying Your Own Project

• Some members of staff are prepared to supervise projects specified by students themselves
• If you wish to do this you must obtain the agreement of such a member of staff
• The project must be classified as of the type appropriate to you

Work Based Learning Projects

• General Features
  – Allow students the opportunity to gain real life project experience
  – Opportunity to develop your CV
  – Follow same format as internal projects (specification, design, implementation, testing evaluation)
WBL – Types of Project

• Examples:
  – Database/web design developments
  – Design of help desk systems
  – Implementing a work-tracking system
  – Devise and generate an XML schema & configure an XML editor to support editing
  – Research and implement options for communicating remotely with offsite staff
  – Propose your own project

WBL – Host organisations

• Wide range of organisations from large multi-national companies (e.g. Jaguar) to specialist software development companies, manufacturing companies, botanic gardens etc etc.
• All within travelling distance of the University
• Travel costs are paid by the company

WBL – Format

• Start of project – negotiate ‘Learning Agreement’ with academic supervisor and employer mentor (nominated point of contact at the host organisation)
• Learning agreement will detail full work plan, but also Health and Safety issues, confidentiality etc
• Follow same format/deadlines as for ‘internal’ projects

WBL – What to do next

• If you are interested in having a look at what WBL projects are on offer, you need to complete an ‘expression of interest’ form and return this to Jane McQuinn, via the reception desk at the Careers and Employability Service, 1st floor, Student Services Centre by Wednesday 16 April, 2008.
WBL – What to do next (cont)

• You will then be emailed with project details, and you can express an interest in some/all of these projects.
• You will also need to provide an up-to-date curriculum vitae by **Friday 23 May, 2008.**
• Student CVs are then sent to the companies who will select the student they would like to offer the project to usually via interviews.

WBL – Project Selection

• If a company chooses you for a project, you will be emailed immediately by the Business Bridge team.
• You do not have to take this project though – you can still change your mind and opt for an internal project instead.
• All WBL projects will be finalised by **Monday 15 September, 2008,** i.e., before the start of the semester.

WBL – any queries

• If you have any further questions, or would like to discuss an idea for your own proposed WBL project, please email

  – Dr Trish Lunt : p.j.lunt@liv.ac.uk
  – Jane McQuinn : J.McQuinn@liv.ac.uk

WBL - What do employers say?

• “Business Awareness and maturity… are significantly improved by work based learning…”

• “Students who have undertaken relevant work experience have a host of examples of experiences to share at interview”
WBL – Careers Support

- CV’s – individual 15 minute interview – just phone on the day you want to see a careers adviser to book a slot
- CV Presentation followed by ‘surgery’ in Careers Seminar Room
- Mock interviews by appointment – phone 794 4647 to book

WBL – Careers and Employability Service Opening Times

- Monday – Friday 10 am - 4.30 pm
- You may book a 15 minute interview with any of the careers advisers to check your CV
- Longer Guidance & Mock Interviews by arrangement with Wendy
- Tel: 794 4647

WBL – Careers Contacts

- Careers Adviser: Wendy England
- Location: Careers and Employability Service, First Floor, Student Services Centre, 150 Mount Pleasant
- Email: careers@liv.ac.uk
- Tel: 0151 794 4647

Organisation

- You are expected to work on the project throughout the year
- Each project has an academic supervisor, who will give advice and direction, but you are expected to work largely independently
- There are a number of review points throughout the year
Phases of Projects

- **Research & Specification**
  - finding ideas to build on; related work to put your project in context; fix specifications
- **Design**
  - planning the project; designing the software; planning evaluation
- **Implementation**
  - building the software; testing the software; performing experiments
- **Evaluation**
  - critical assessment of strengths and weaknesses; relation to other work

Assessment

- **Written specification**
  - week 3 worth 10%
- **Oral presentation of design (and supporting documentation)**
  - week 10 worth 15%
- **Demonstration of software**
  - week 22 worth 15%
- **Dissertation**
  - week 24 worth 60%

Information About Projects

The projects information website:

www.csc.liv.ac.uk/~comp39x/2008-09/

Your first port of call for:

- Overview of project scheme
- Guidelines on choosing a project
- Projects offered by members of Staff
- Announcements
- Other useful information

Timetable

- **Mon 14 April, 2008**
  - Staff proposed projects available
- **Mon 14 April – Fri 2 May, 2008**
  - Look at staff proposed projects
  - Staff available to discuss projects
- **Fri 2 May, 2008**
  - Ranked list of choices to be submitted (on the web)
- **After exam results are out**
  - If you have chosen projects for which you are ineligible, you may substitute these choices
Making Your Selection I

• If you wish to specify your own project, you must have found a supervisor by Friday 2 May, 2008.
• If this has been done, you do NOT need to submit choices, but inform me about the project and who will supervise it.

Making Your Selection II

• Otherwise you must rank TEN projects in order of preference.
  – It may not be possible to observe all preferences: you should be prepared to do any of your choices.
• No more than SIX may be of a given type.
• No more than TWO may be from a given Supervisor.
• WBL counts as ONE choice (rank at the top).

Form to be Completed

Will be made available on the projects website:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Project Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>WBL</td>
</tr>
<tr>
<td>2</td>
<td>VS2P</td>
</tr>
<tr>
<td>3</td>
<td>BMD1R</td>
</tr>
<tr>
<td>4</td>
<td>VS1R</td>
</tr>
<tr>
<td>5</td>
<td>BMD6P</td>
</tr>
<tr>
<td>6</td>
<td>AL3P</td>
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<td>8</td>
<td>DJ2R</td>
</tr>
<tr>
<td>9</td>
<td>DJ7P</td>
</tr>
<tr>
<td>10</td>
<td>MZ3R</td>
</tr>
</tbody>
</table>

Note:
- Project codes from Web page.
- At least 5 supervisors.
- No more than 6 projects of a given type.

Choice Wizard

Choose project:
Choose Project
Please fill in the following.

Registration Number: [SPIDER log-in number]

[Proceed]
Wednesday 16 April 2008.

Remember…

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Any Questions?