**This handbook contains general information about the 3rd year modules AE3IDS and AE3IDJ.**

**For more information, you should attend the lectures or read the recommended textbook: C. Dawson, The essence of computing projects: A student's guide.**

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# Choosing a Project and Supervisor

You need to find a supervisor and agree your project topic by the deadline (see Moodle page for deliverables and dates). The sooner you do this, the more choice you will have, as supervisor places fill up and you may not be able to find a supervisor who is willing to supervise the project you want to work on. A list of supervisors and project topics they offer is given on Moodle page. You can also come up with your own project topic, but you need to discuss it with your supervisor to make sure it is appropriate and the supervisor is happy to supervise it. Please ask your supervisor to sign up the form and then submit to Moodle.

If you have a question, you can email the module convenor, Paul Dempster.

# Transferable Skills

Final Year (Part II) projects are intended to develop your transferable skills alongside your computing skills.

**Transferable Skills** are about developing generic skills that will be invaluable for your career. In particular, these skills include developing clear and logical thinking, analytical and problem-solving ability, communicating complex ideas and information as well as project management skills, ability to produce well-written reports and be confident in public speaking, good awareness of business and professional issues relevant to computing.

# Requesting hardware and software

If you need special hardware and software for your project, and your supervisor agrees, you can ask your supervisor to submit an online equipment request via university weboa system using School’s teaching budget. Please be aware that the procurement may take long time and it is necessary to plan it well in advance.

# Dissertation

The following is a typical dissertation structure. However, this is for guidance only: depending on the type and specific aspects of your project, you may find it appropriate to structure your dissertation in a more or less different way. Discuss with your supervisor.

* **Title page** with a signed declaration that the dissertation is your own work. You are reminded of the University's [policy on plagiarism](http://workspace.nottingham.ac.uk/display/CompSci/Policy+on+Plagiarism) (you may need to log in to view).
* **Abstract** giving a short overview of the work in your project
* **Table of contents** giving page numbers for all major section headings
* **Introduction** setting out the aims and objectives of your project
* **Motivation** explaining the problem being solved
* **Description of the work** explaining what your project is meant to achieve, how it is meant to function, perhaps even a functional specification
* **Related work** explaining what your project does that is new or is better than existing work in the same field
* **Design** containing a comprehensive description of the design chosen, how it addresses the problem, and why it is designed the way it is
* **Implementation** containing a comprehensive description of the implementation of your software, including the language(s) and platform chosen, problems encountered, any changes made to the design as a result of the implementation, etc.
* **Evaluation** explaining how your software was tested (using different datasets or in different environments), statistical evaluation of performance, results of user evaluation questionnaires, etc.
* **Summary and futher work** including a personal reflection on your experience of the project and a critical appraisal of how the project went
* **Bibliography** containing a *complete* list of books and other publications that are either explicitly referred to in the text, or which are recommended for further reading on the topic
* **Appendices**, e.g., User Manuals, supporting evidence for claims made in the main part of the dissertation (e.g. a copy of a user evaluation questionnaire), samples of test data, etc. Note that Appendices are optional

# Difference between 20 and 40 credit projects

A 20 credit project should involve a substantial element of problem solving, just as a 40 credit project does. However, unlike in a 40 credit project, you will not be normally expected to produce a substantial amount of software. Typically, a 20 credit project will instead address the problem via design, evaluation, combination of existing technologies, etc.

If you are doing a 20 credit project, you should be working on your project on average 7 hours a week as opposed to 14 hours a week for a 40 credit project based on the standard University assumption of 10 hours of work per credit over 30 weeks of teaching, revision, and assessment.

**Word limits:**

* **20 credits**: 10,000 words
* **40 credits**: 15,000 words

The word limit does not include appendices or other supporting documentation. Your dissertation **should not exceed the word limit**. You do not have to use up your word limit to get a good grade; never `pad out' your dissertation, this will only annoy the markers.

# Dissertation Submission Instructions

Your dissertation needs to be submitted both on paper and electronically using Moodle. The code only needs to be submitted electronically using Moodle. Late submission (of any one component: hard copies, electronic copy, code) is subject to the standard University penalty of 5 marks reduction per working day.

## 1. Paper submission:

Please submit two **bound copies** of your dissertation (do **not** include a complete listing of your code) to the Faculty office **before the deadline.** Each copy should be independently bounded with a transparent plastic cover.

* Please print it double-sided, with at least a 2.5cm margin on the left and minimum of 2cm right margin.
* Your dissertation should have a specific front page format (or close enough - don't worry about the font etc.). See the Moodle page for a PDF and Word example front page. Don't forget to sign the front page on both copies.
* Please print the dissertation well in advance and arrive to submit it with plenty of time to spare.

## 2. Electronic submission :

Please submit your dissertation as a PDF (the only accepted format!) and your code/other supplementary material as one file ( .zip, .jar or .tar.gz) using Moodle (under Assignments choose the link to Dissertation), **by the deadline**

Please contact the module convenor if you have problems accessing Moodle or have a good reason to request an extension. **Your supervisor cannot give you an extension** (neither can the module convenor without an approved extenuating circumstances form).

### Dissertation Submission Deadline

Please refer to the Moodle page.

# Assessment Criteria

Your supervisor will grade your work and this will be moderated by a project panel. Assessment will be based on the following aspects of your project and dissertation:

* Aims & objectives
* Background research
* Specification & design
* Quality of software produced
* Critical appraisal

The following guidelines outline the typical requirements of specific grades. It is not necessary that a project exhibit all the criteria listed in each grade given below to fall within that grade. The characteristics of each grade are merely representative of that grade. The balance between various aspects of the work will be considered during assessment.

# Grades

* *Exceptional (90-100%)* The work and dissertation should exhibit all the characteristics of an Outstanding grade. Additionally the dissertation should be publishable without significant reworking or alteration. Any software and supporting documentation should be of the highest possible quality. The work should display complete and comprehensive originality. In short the work should be reflected in a dissertation of stunning and universally accepted quality!
* *Outstanding (80-89%)* The work and dissertation should exhibit all the characteristics of an Excellent grade. Additionally the results should be publishable in a suitably modified form. The work should exhibit a large degree of independent thought and originality. Technical assistance from the supervisor would have been minimal and the student would have exhibited high levels of self motivation. Any software and supporting documentation should be of the highest possible quality.
* *Excellent (70-79%)* The work should display a complete and thorough understanding of the conceptual and practical issues surrounding the chosen topic. There should be evidence of independent thought in the form of some degree of originality in the presentation and discussions of the material. The dissertation should be well structured with a clear line of argument and the quality of the analysis should be excellent. Any software should be completed in all respects and exhibit very high quality; there should be evidence of a high degree of testing. Supporting documentation should be complete and approaching the standard of high quality professional documentation.
* *Good (60-69%)* The work should show a good understanding of the conceptual and practical issues surrounding the chosen topic; the arguments should be clearly structured, but there is no specific requirement for any degree of original work. The quality of the analysis and the writing of the dissertation should be good. Software should be competently designed using a recognised design method; evidence of testing should be presented. The software should be a complete and usable package which not only illustrates the principles of the work but also exhibits good levels of quality. Supporting documentation should be excellent for all purposes; it should be complete, well written, well presented and generally exhibit high quality.
* *Average (50-59%)* The work would be expected to display an adequate understanding of the key conceptual and practical issues, although weakness may be present in some areas. There should be evidence of some attempt to construct an argument around the information available. The analytical content should be average. Software should be adequate to illustrate principles; it may display weakness in areas not central to the work and lack comprehensive testing. Supporting documentation would be well presented yet lack completeness; the quality of the documentation should be very good.
* *Adequate (40-49%)* The work would display an incomplete understanding of the central issues relating to the chosen topic. The dissertation would lack a clear structure and strong argument and the quality of analysis would be below average. The writing would be mediocre. Software would be poorly designed, incomplete, poorly commented and difficult to understand; it would exhibit poor levels of quality. Supporting documentation would be adequate.
* *Poor (below 40%)* The work would display a very poor understanding of the chosen area; there would be no clear structure and the analysis may be weak or incomplete. The dissertation would be poorly written and presented. Software would be limited in capability, and difficult to use. Supporting documentation would be inadequate for most purposes.

# Lectures

A handful of support lectures are given throughout the year. They cover administrative details as well as aspects such as choosing, defining, and planning your project, project management, writing a dissertation, etc. See the module time table for dates, times, and rooms.