

Oxford Brookes University

study guide

8036, 8087, 8098
Project

1st Edition

1 INTRODUCTION

1.1 Rules and Regulations

This handbook is designed to assist students in the School of Computing and Mathematical Sciences to choose, plan, start and complete a successful project.

The modular course regulations require that all honours graduates must have gained two module credits from projects. However, projects may also count towards non-honours programmes.

The School encompasses a range of double fields (CG, CI, CP, CY, IG, IM, SH & ML) as well as a variety of single fields (CI, CO, CS, EE, IN, MA, SG & ST). Many aspects of undergraduate projects are common to all the fields, and the first part of this handbook concentrates on these aspects. The second part of the handbook is divided into sections specific to computing, mathematics or statistics. Ensure you read the section relevant to you.

THE SELECTION OF A PROJECT IS NORMALLY CARRIED OUT AT THE BEGINNING OF TERM 3 OF A STUDENT'S SECOND YEAR AND A TITLE AND SUPERVISOR(S) MUST BE AGREED BY WEEK 6 TWO TERMS BEFORE THE TERM THE PROJECT IS TO BE SUBMITTED.

YOU MUST SUBMIT YOUR COMPLETED PROJECT TO THE PROJECT ADMINISTRATOR IN THE SCHOOL OF COMPUTING AND MATHEMATICAL SCIENCES SCHOOL OFFICE AT THE LATEST BY 4.00PM ON THE FRIDAY OF WEEK 0 IN THE TERM IN WHICH THE MODULE IS TO BE ASSESSED.

There are three types of project within the Modular Course and the regulations regarding how they count towards your programme depend on whether you are taking a double field or two single fields.

Double fields (Single honours degrees)

All double field (single honours degree) honours students must pass the project double module acceptable to their field (e.g. 8096 BSc Computing Project). Both module credits count towards the 16 acceptable module credits required.

Single fields (Joint honours degrees)

Single field (joint honours degree) students have a choice between double, interdisciplinary or single projects.

a) **Double project:** Taking a double project (e.g. 8092 Intelligent Systems Double Project) enables you to carry out an in-depth study of a topic in just one of your two fields. Only one of the two credits will count towards the minimum requirement of that field but both will count towards the total number of acceptable credits required.

b) **Interdisciplinary project:** An interdisciplinary project allows you to undertake a double project which is relevant to both your fields. From this type of project you gain ONE module credit for EACH of your two fields. If you choose an interdisciplinary project, then your programme should contain two interdisciplinary project numbers and titles in your final term (e.g. 8491 Statistics Interdisciplinary Project and 8690 Mathematics Interdisciplinary Project). An interdisciplinary project should cover subject matter relevant to your two fields. Ideally

this should be split between the two areas equally (50:50), although this is not an absolute requirement. Sometimes, when subject areas are closely related, such as single fields within the same School, one supervisor will suffice. If your other field is outside the School of Computing and Mathematical Sciences then you almost certainly will require a second supervisor. You should consult your other field project handbook or their project coordinator (module leader), to be sure that you are aware of any special needs that they might have. If the topic of your project only relates to one of your two fields then you should register for a double project in that field (see (a) above).

c) **Single project.** You may also register for two single projects, one in each field (e.g. 8098 Computing Single Project and 8694 Computing Mathematics Single Project).

1.2 What does a project involve?

The project is a large, individual piece of work selected from a suitable area of your programme of study and must contain some unique features. These may include, a) in computing - the solution of a problem in computing, which will normally involve design and implementation, b) in mathematics - it could be the application of mathematical techniques to a particular problem of interest, perhaps to your other field of interest, or c) in statistics - a survey, fresh analysis of existing data, or a simulation study.

1.3 Why your project is important

The project - normally undertaken during the final year of your degree programme - contributes significantly towards your marks and is often seen as the highest point of your degree studies. Many prospective employers ask pertinent questions about your project at interviews and are likely to be impressed by a good response. A good project will indicate that you can use your knowledge, your problem-solving abilities, your organisation and communication skills successfully. All of these are important, with these attributes, and the evidence of your ability to appraise and develop your own work independently, you will prove your worth to the people who will determine whether you can take the next step on your chosen career path.

Your eligibility to join a professional or learned society (such as BCS) often depends on the quality of your project work and demonstrated professionalism.

1 PLANNING YOUR PROJECT

2.1 Supervision

Towards the end of the spring term in the penultimate year of your course, you will be invited by some fields to project meetings. Here advice and guidance on projects and project selection will be given.

In the term before you begin working on your project you should start to think seriously of ideas for your project. At this stage you should take the opportunity to discuss these project ideas with the members of staff who would be willing to support them and supervise you.

Having decided on a project and obtained acceptance from the prospective supervisor it is your responsibility to ensure the M100 Project Registration form is filled in signed and submitted to Student Administration. *This should be accomplished, by week 6 two terms before the term the project is to be submitted - normally this is by week 6 of the first term of your third year.*

THE M100 FORM IS ALSO AVAILABLE ON THE SCHOOL'S WEB PAGE

NOTE lecturers normally supervise between 6 and 8 projects each year. Registering with them is on a first come first served basis. Prospective supervisors will ask you to write an outline (abstract) of what you intend to do on your project before accepting you as one of their project students.

2.2 Managing your project

The discipline of project planning and control is an essential element of any project. It will enable you to anticipate problems and areas of difficulty, it will also help you to ensure that work is completed on time.

2.3 Logbook

From the planning stage of your project you should keep a logbook. This will prove invaluable to you throughout the year. It should contain information concerning items such as, strategic decisions, and accompanying reasons, practical design considerations, experimental data, references to articles and other work, useful addresses, etc.

At the writing up stage you should find all the relevant information in your logbook. However good your memory, details of events which occurred up to eight months earlier will be lost. Records in your logbook will allow you to discuss concrete details and problems with your supervisor, to your benefit.

2.4 Time to the

The following timetable assumes you will graduate at the end of the summer term in your final year. If you are graduating at a different time you will have to adjust the time scale accordingly.

| Period | What you should be doing |
|------------------|---|
| Penultimate Year | |
| Spring term | Attend meeting on <i>Choosing and Starting Your Project</i> , if offered by field. Consider what resources you will need, and whether they are available. Discuss project ideas with prospective supervisor(s). Fill in M100 Electronic copy available on School web page there is also a hard copy available at the end of this handbook. NOTE: Module Leader = Project Co-ordinator for the Project Modules. |
| Summer term | Register your project and supervisor at the School Office. A registration form is attached at the end of this handbook. You should have started your literature search (see section 3, GUIDE TO DOING RESEARCH). Learn to read Abstracts, Indices, CD-ROMs, read current relevant journals, make use of the inter-library loan facility, etc. Check you have the skills necessary for your project. This may involve learning a new piece of software, thinking about analysis of data, experimental design, mathematical analysis, etc. You should NOT normally consider starting any practical work at this stage, although thinking about and planning your project is appropriate and even essential if you are to complete a successful project. |
| Summer vacation | This may be a good opportunity to start some practical work. |
| Final Year | Continue to discuss the project with your supervisor. Practical work should now be well under way. Do not stop looking at the literature and seeking out information, there is always more to find. |
| Autumn term | By the end of this term you should have started to write a first draft of your project. |
| Spring term | Discuss the format of the project report with your supervisor. |

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Decide how you will produce the final version of your project. If you are having your project typed professionally, you should find a typist NOW! If you are word-processing it yourself, then get started.

Show your draft introduction to your supervisor. Revise it based on their feedback.

Write other sections such as design, implementation, analysis of results, discussion, references;

Practical work must be finished by now, preferably earlier.

If you are having your project typed professionally, ensure your typist has plenty of time. You must proof read the script and return it for corrections.

If you are word-processing your own project on the networks at the University, remember that another 700 or so students are doing exactly the same thing! You will be competing for terminals, and printing time. What happens if computers or printers break down? This kind of overload happens every year and must be anticipated.

THE DEADLINE FOR SUBMISSION OF PROJECTS IS 4.00 PM ON FRIDAY OF WEEK ZERO OF THE SUMMER TERM

PROJECTS SUBMITTED LATE

The only person who has the power to grant you an extension is the Project Co-ordinator or Modular Dean (NOT the Project Supervisor). Extensions are only given in exceptional circumstances. See Appendix for examples of such circumstances

Summer term

Most fields have oral presentations as part of, or associated with, the assessment. A timetable for these presentations will be emailed to students, normally during Week 3.

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3 GUIDE TO DOING RESEARCH

3.1 Before you begin

Whatever type of project you are embarking on, you will need to research the background of the subject. However, before you even start to carry out your literature search there are a number of things you will need to consider:

- Where might I find the information?
- What time span am I thinking of, how up-to-date must it be?
- Should I only consider what is happening in this country, or internationally?
- Should my research be limited to publications in English?
- What sources could I use to begin my search?
- What help can I get (or short-cuts can I take)?

Having thought about these, you can now start to look for information. Remember, you don't have to make final decisions at this stage - you will develop your ideas as your literature search and your research develop.

3.2 Resources

You should by now be familiar with Brookes Library and its cataloguing system, but if you need a reminder there are 'Guides for finding Information' available in the following subjects:

- Computer Sciences
- Mathematics & Applied Statistics
- and other Science areas

Beginning your search

Your project is to a large extent a research project and therefore needs up to date information. Current research, and even recent research, can be quite difficult to find out about. However, there are a number of ways to help make this easier.

Reviews

A review covers the entire scope of a topic, outlining what has been done and what is known about it. If you are fortunate enough to find a recent review, then you can search back using the references it cites and find other papers on the same topic. This gives a historical perspective of what is known already.

Many subject areas have annual publications which review specific topics. Typical names include:

Advances in... Annual Review of... Current Topics in... etc.

You will also find a number of review journals in the Library e.g. Trends in ...

Journals

Most research is usually submitted for publication in journals. Brookes Library has a selection of relevant specialist journals on your subject. Many of these run back over a number of years.

Lists of journals in different subject areas are available from the Library.

Abstracts & indexes

Most subject areas tend to be covered by a variety of journals. Some of these are more obscure than others and you may not have come across them, particularly if they are not held in Brookes Library. To find out what has been written in a subject area, abstracting and indexing journals are published.

An indexing journal is usually arranged by subject. Under each subject heading it lists the bibliographic details (author, title, journal, volume, page numbers) - or citation - of all the articles published on that subject in the journals monitored during the time period covered.

An abstracting journal gives a short summary - or abstract - of the article as well as the bibliographic details given in an indexing journal. Frequently the abstract will give sufficient information to enable you to decide whether or not you need to see the original article. An abstracting journal usually has a broad subject arrangement and author and subject indexes.

Compact Disc (CD-ROM)

Many abstracting and indexing journals are now available as databases, held on CD-ROM in the Library, or on the Library or University networks. These give the same information as printed abstracts and indexes but the information is often accessed more easily via the computer.

BUT remember that not all abstracts & indexes are available on CD (some are still only available in printed form), and any indexing or abstracting service is only as good as the scope of the journals it abstracts from. Some of the databases are rather general and you may find that important articles are missing, others may be too specific, or at the wrong level.

Science Citation Index (SCI)

This lists articles by authors who have referred to (or cited) an article which you know about. Effectively you are able to see articles on the same topic which have been published after your key reference and, therefore, bring your research right up to date.

SCI is available from terminals in the Library and also from University networked terminals. You will need a user number and password to use SCI and these are available from Donald Marshall, Science Subject Librarian (L204).

Learning to use these facilities

You will be able to use Science Citation Index and the CD databases more efficiently if you first go on a short training course. Regular courses, or more specific information skills training and help, may be offered by the Science Subject Librarian. See Donald Marshall (L204) for more information.

Accessing information not held at Oxford Brookes University Library

As you search for information, you will almost certainly encounter references which are not held in our Library.

Other libraries

Oxford is the home of a variety of specialist and research libraries, including the Radcliffe Science Library (RSL) - the science part of the Bodleian Library. You have no automatic right to use these libraries but you may be able to get access for reference purposes.

To apply, you must be recommended by your Supervisor and the Subject Librarian. Application forms and more information are available from Donald Marshall or the Library Enquiry Desk. You should not go to these libraries without first consulting Donald Marshall.

Inter Library Loan (ILL)

This is a system by which books or journals may be borrowed from other libraries. To request an ILL you need to fill out a pink form for (for books) or a blue form (for journal articles) - available from the Library Enquiry Desk - giving details of the reference you want to borrow. These forms must be signed by your supervisor.

The actual cost of an ILL is about £5.50. You are entitled to submit up to 30 (40 from October, 1996) requests per year at a subsidised cost of £1. If you exceed your quota, additional requests may still be made but these must be paid for in full.

Further information about these and other library services is available from the Library Enquiry Desks.

If you need more advice or help in beginning your research or carrying out your literature search, see your Subject Librarian, Donald Marshall (L204)

4 REPORT WRITING

4.1 Report format

4.1.1 Title Page

The first page is a standard form obtainable from the modular office. Also available on the CMS web page.

The form is designed to be readable through the cut out of the official project cover. The Print Room will supply a cover and do the binding, which will cost you £1 per copy. The Print Room also offers very competitive rates on photocopying.

Fill out the form completely, making sure you enter the following on the form:

- the project/dissertation module number(s) (two numbers for Interdisciplinary Projects);
- whether it is a single or a double module credit (remember that Interdisciplinary projects count as a double module credit);
- the title of the project (which must be concise and accurate);
- your student number and name;
- the field(s) for which the module project/dissertation is acceptable and the date of submission.

On the reverse side of the standard form is a copyright agreement. Most people sign this to allow future students to read and photocopy the report.

4.1.2 Table of contents

This follows the title page and is a list of the sections, subsections, etc. Page numbers must be given for each section (see the Contents page of this document). You may use as many subdivisions of sections as are necessary.

4.1.3 A list of tables and a separate list of figures.

These should be listed in the order in which they occur in the body of the giving page numbers.

4.1.4 The Summary or Abstract

This should briefly (in about 300 words) explain both what you did and what you found.

The purpose of the abstract is to give the reader of the report a quick overview of the project. It should be enough to convince them to read the rest of it or decide it is inappropriate to their interests.

In practice it is usual to write this section last. Below is an example abstract from the subject areas of computing mathematics and statistics. Have a look at some published papers for more examples of the style and format used in abstracts.

Example abstract:

The project involved the design and implementation of a raytracing system, in ANST C, suitable for rendering images of neural hierarchy data. The system is intended to complement the GENESIS neuron simulator, by providing a utility for creating photorealistic images suitable for presentations and reports.

The rest just introduces the subject of raytracing, with the emphasis placed on aspects used by the project software. Particular topics include: object modelling, raycasting, intersection tests and surface illumination followed by a brief note on improving raytracer efficiency.

With background knowledge complete, the document moves into the specific requirements of the system. This is followed by the construction and refinement of a software design plan for the system. The design analyses and specifies five key aspects of the software: program structure, data input, object rendering, image output and user interface.

Implementation and testing issues, were performed in parallel, are then discussed with emphasis placed upon aspects such as development language and environment, implementation issues and known problems with the system. This is followed by a discussion of project issues, including a revised method of implementation, using an object-oriented language, which would have been ideal for the project.

4.1.5 Acknowledgements

If you wish to make any acknowledgements (or to dedicate your work to someone) then the next page is the most appropriate place for this.

4.1.6 Headings.

The book of the project follows after the preliminary pages. The format will depend on your own and your supervisor's ideas of the most appropriate way to display the information and data. Traditional lay-out of **Introduction, Methods, Results and Discussion**, is suitable for many projects. In a project which is mainly concerned with the development of a computer system the lay-out it is more likely to be **Introduction, Requirements & Systems Analysis, Design, Implementation, Testing and Discussion**. However these are not the only possible formats, and it would also be acceptable to divide each section into subsections etc. For

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example the introduction might be divided into (i) background, (ii) literature review, (iii) objectives of the current work, etc.

Headings of sections should be numbered in the same format as on the contents page. Identical headings should occur on the contents page as are found in the body of the report. Main headings should be in capitals and subsidiary headings should be in lower case.

4.1.7 Discussion, (including Conclusions & Recommendations)

The information provided in the body of the report should lead you to some conclusions and, if appropriate, to recommendations. Towards the end of your discussion you should include a section of conclusions. If you feel that recommendations are required then these should be based solely on the material presented in your conclusions.

4.1.8 References.

The purpose of citing references in the text is to acknowledge the ideas and work of other authors and to enable your reader to find the source of your information if they should wish. Reference should be cited using the *Harvard System*.

The following examples are intended to illustrate how it should be done. In the text:

Stachowitz (1987) shows that *physical graph* representation is directly inspired from the classic control graph formalism

or

Physical graph representation is directly inspired from the classic control graph formalism (Stachowitz 1987)

and

Worcester (1996) identifies a 'spiral of silence' as an explanation for some inadequacies in opinion polls

or

A 'spiral of silence' has been offered as an explanation for some inadequacies in opinion polls (Worcester 1996)

In the reference section (at the end of the project) the various papers are arranged in alphabetical order of the first author's name.

Stachowitz R. A., Combs, J. B. & Chang, C. L. (1987) Validation of knowledge-based systems. Second AIAA/NASA USAF Symposium on Automation, Robotics and Advanced Computing for the National Space Program, Arlington, Va (USA).

Worcester R. (1996) Political Polling: 95% Expertise and 5% Luck. J. R. Statist. Soc. A, 159, part 3, pp5-20

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Somersalo E., Cheney M., Isaacson D., (1992) "Existence and Uniqueness for Electrode Microfields for Electric Current Computed Tomography". Inverse Problems 52, part 4, pp1023-1040.

The actual information provided on each reference depends on whether you have a book, journal article, chapter in an edited book, etc. The system is fully explained in *British Standard 5605* (you can find this in the Library). The Library also produces a very useful free handout on citing bibliographical references.

All references cited in the text must be listed in the reference section. Papers and books which you have read but not referred to in the text should not be included in the reference section.

4.1.9 Appendices:

Some people include one or more appendices. An appendix is "an addition subjoined to a document or book having some *controversial* value, but not essential to completeness" (OED). For example you may have collected 7500 items of data in your project, the result section could contain a series of tables or graphs to summarize the data; the raw data could be held in an appendix.

4.2 Report Layout

Information sheet M144 (Projects and dissertations) available at the modular office gives guidelines on how to present the final report. The following is a brief resume.

The report must be presented on single sided A4 paper.

The document must be produced in black type which is not less than 8pt (2.75mm) 12 point is a good size and has been used for this handbook. *This sentence is in 8pt, you must not have a typeface smaller than this*

Margins should be not less than 30mm on the side of the binding (left hand side) and not less than 20mm on each of the other sides (right, top and bottom).

The lines of text should be either Double or One and a Half spaced, except in footnotes or quotations where they may be single spaced.

All pages should be numbered consecutively (including contents, through to references and appendices. Occasionally contents and references are numbered separately)

Page numbers must be located centrally in the bottom margin (about 10mm up).

Drawings should be in black. Photographs may either be in colour or in black & white. It is advisable to mount photographs on a sheet of A4 thin card which can be bound into the report as one of the pages.

Numbers and captions to figures and tables should be at the bottom of the figure or table. If the figure or table is mounted sideways into the report, then its bottom is on the right hand side of the report.

Projects should not be more than about 10000 words. You must be concise. Excessively long reports will be penalised. This 10000 words does not include the contents, list of tables, list of figures, the reference section or any appendices.

4.3 Copying and Binding

Two copies of the report should be submitted. You will also need to keep another copy for yourself.

All the material which is being submitted as your report should be bound into the report. If it is impossible to include the material in the booklet (e.g. if part of the report is a video cassette) then all supplementary material must be suitably packaged and clearly labelled.

Projects should be bound

All costs of production including typing, photographing, photocopying, the cost of the cover and binding, etc. must be borne by the student.

5 SOME FURTHER QUESTIONS AND ANSWERS.

5.1 Who is the audience I am writing the study for?

You are primarily writing for yourself and for the examiners. The external examiner is likely to have a good knowledge of the general area of your study, but not about the specific details.

You must set the scene for your reader in the introduction. Assume the reader has the knowledge you had when you started the study. You should set the level of your report at that of another student in the final year of your field.

5.2 Apart from when it is assessed will my supervisor check my English, calculations, data analysis and drawings?

The answer is yes and no. If your style is bad, he/she may correct two or three pages in detail to show you how it should be done. If your mathematics is suspect or your diagrams are faulty then they will draw your attention to it. Your supervisor will NOT write your report for you or check every word. It is presumed you will use a word processor to produce your report so remember to use the spell checking facilities.

5.3 Prizes

Some learned or professional institutions offer a prize for the best final year project in their subject area. If your project is in the appropriate discipline then it will be considered for nomination. The School also has some prizes to award, for which the project may be the an element.

5.4 Do I have to hand in DISCS?
Yes, if programs are involved.

6 PLAGIARISM

Plagiarism (p-la-jee-er-ee) one who takes the thoughts or writings of others and gives them out as his/her own. plagiarism, the act or practice of plagiarizing.
Chambers' Etymology Dictionary

Writing a report is intended to make you express yourself. Your report must be based on your own thoughts and written in your own words. Most authors spend considerable thought in choosing the right words to convey their thoughts in writing. If they have selected the optimum combination of words to communicate that idea, then you may find it difficult to match their argument with your own words. In such circumstances it may be appropriate to quote them and give them credit.

If you choose to quote someone else's writing, then you must give them credit by:

1. enclosing their words in quotation marks i.e. "non-response bias is conceptually separate from sampling bias" (Ajzen and Jowell, 1996), and
2. citing them as the source of the quotation (See the subsection 4.1.8 References).

Note that excessive use of quotations is not advised, as it suggests that you are unable to formulate an argument or a discussion of your own.

If it becomes apparent that you are plagiarising other people's work, then you will be severely penalised in the marking of your project. You may also face further disciplinary action by the University.

The following extract is from the Academic Secretary's memorandum on *Plagiarism and Syndication* (2.11.93)

"Assessed course work places pressures on students that are in some ways quite different from those imposed by preparing for invigilated examinations; it often involves the synthesising and representation of ideas and material derived from books, articles or handouts. It's therefore particularly important not to give the impression that the formulation of ideas is your own if it's not. If you are quoting actual words from a publication or someone else's essay, or dissertation - or even from work of your own - it is essential that you acknowledge that fact each time you do it. There are conventions for such scholarly citations and the Library has a good leaflet on the subject. You get marks for doing it right! It's not enough just to list sources in a bibliography at the end of your essay or dissertation, if you do not acknowledge the actual quotes in the text."

... "Unacknowledged quotation and syndication is treated as cheating and, on detecting it, the examiners will automatically give no marks for the piece of work and will tell me they have done so. If the offence is not your first or if there is some particularly heinous feature, I will have an Examination Disciplinary Committee convened" . . .

Regulation 19 for Candidates Taking Examinations reads as follows:

"Candidates must ensure that course work submitted for assessment in fulfilment of course requirements is genuinely their own and is not plagiarised (parroted, without specific acknowledgement, stolen from other published or unpublished work.) Quotations should be clearly identified and attributed, preferably by the use of the standard conventions for referencing. Assessed work should not be produced jointly unless the written instructions specify this. Such co-operation is cheating and any commodity of text is plagiarism."

7 EXAMPLE TITLES OF PAST PROJECTS IN COMPUTING

- The Long Term Population Dynamics of the Robin *Ethiops tuberculata*
- Flight Simulator
- The Computerisation of the Simulation 'NATO Division Commander'
- Thematic Mapping for Hong Kong using GIS/MIS
- A computerised stock control system for an electronic component manufacturing company
- Multichannel oscilloscope traces on a PC with fast analogue interface card
- A graph based system for intelligent selection of second stage modular programs
- Development of a Decision-Support-System (DSS) for a small firm
- MIDI Bass Pedal
- The development of an information strategy for the Churchill Hospital Oxford
- Design and implementation of a stock control system for a retailer
- An expert system to diagnose schizophrenia
- Computers and the publishing industry: and the automation of a small publishing company
- Flood simulation using GIS
- Automated analysis of signals
- Design and development of a computer-based accounting and stock-control system for an engineering company
- Implementation of a neural network
- The use of spatial database systems in planning
- Interactive SQL Tutor
- Computing a Primary School Library
- An Information Management System for the Epidemiological Analysis of Allergic contact Dermatitis Patients Undergoing 'Patch Testing'
- German grammar revision package
- Satellites in computer communications
- Computer Tomography
- Demonstration Software for Data Structures
- Wall Street Simulation Game
- Computers and the Middlegame in Chess
- Natural language processing for machine translation in Prolog
- A high level review and investigation of computer security in respect to large computer mainframe environments
- Managing the Introduction of Campus Wide High Speed Networking
- The identification of minerals with an expert system
- A Graphical Ethernet Simulation

Distributed Systems Interfacing using OSF/MOTIF
Using X Windows for simulation of computer communications
Speech Driven Applications
Latest Network Technology
Truth Maintenance Systems and Nonmonotonic Reasoning
Adaptive help systems
Intelligent advice on questionnaire data analysis
How many different arrangements can be made with N Cubes?
Development of an expert system for personal tax assessment
A software package to aid the teaching of mathematics in secondary schools
An interactive inference program for classification
The application of natural language processing; Machine Translation
Towards the Design of a VRMC based Web Browser
Dinosaurs in Multimedia
A Design from a GILL to a Statistical Package Specifically for use in Tertiary Education
Multi-User Chat System Based Around a Virtual House

8 PROJECT TITLES

In the term before you start working on your project a list of brief project descriptions and associated supervisors will be published. You will have been told when the list is due to appear and how to make your preferences known (this information will probably be published on the CMS Web pages). If you have your own project ideas you should have taken the opportunity to discuss them with the members of staff who would be willing to support them and supervise one.

9 ASSESSMENT

Your project is marked by at least two internal examiners including your supervisor(s). All the reports are made available for the External Examiner. In the case of interdisciplinary projects, the project is sent to the External Examiner of your choice.

More detailed information concerning assessment is given in the sections for your particular field.

Feedback

Students can request feedback from their supervisors, but in particular NO feedback can be given concerning marks until after the SEC has sat.

The project menu description describes the project as "An extended study of a topic selected from a suitable area of the student's programme of study involving the solution of a practical problem. The ... project is intended to culminate the course giving the students an opportunity to present the breadth and depth of knowledge gained in their specialist topic."

REPORT - the following criteria will be used:

1. Student understanding of the purpose and implications of the project

- fully understood the objectives of the project and, if relatively limited in scope, investigated possibilities beyond initial specification.

2. Scholarship demonstrated through project work

- originality and ingenuity in solving practical problems;
- knowledge of foundations, methods, techniques, tools;
- skills in software design & development;
- ability to undertake independent study and research;
- depth and breadth of student's knowledge;
- provision of appropriate citations and references.

3. Technical and practical problem solving merits of the project

A main component of the majority of projects will be concerned with software development. Alternatively, it may be appropriate in certain circumstances for a project to undertake experimentation and analysis. In general terms the criteria are:

- appropriate problem definition and specification
- description and demonstration of the methodology employed
- demonstration of the problem solution
- In particular, for software development, problems:
 - quality of final design, efficiency of implementation;
 - attractive engineering of data/processes/interfaces;
 - completeness of verification and testing;
 - meeting the functional and non-functional requirements.

4. Written Presentation

- clarity and conciseness, structure, attractiveness,
- logical development of thought.

5. Poster Presentation

Students are required to prepare a poster summarising the work they have undertaken for their project. It is a requirement of the project assessment that students attend the poster presentations. Students should also be prepared to answer questions on their work during the poster presentation which will usually take place during weeks 6 & 7 of the term in which the projects are assessed. Students are not formally assessed for this aspect of their work, however it is a compulsory part of the project and may be taken into account in the final mark awarded.

The supervisor's assessment of the amount and nature of supervision, as defined below, will also be taken into account.

- capability to work independently, responsiveness to advice;
- frequency and nature of tutorials (explanations, advice as to the literature, discussion of the presented solutions, etc.);
- supervisor's editorial input.

APPENDIX A

Examples of Circumstances which may allow granting of an extension to deadline of project submission:

- a medical certificate covering indisposition for a period at which key work was due to be carried out;
- late arrangement of supervision because admission with credit took place;
- an unexpected bereavement;
- a failure of a third party to honour a previously arranged agreement to provide data or facilities;
- a failure of University equipment that had been allocated for the project;
- absence of a supervisor at a point when key supervision had been specifically planned;

Examples of circumstances which would not normally be sufficient for an extension:

- loss of a computer disc (backups should be kept);
- failure of a printer (printing should be done well in advance of the deadline);
- change of (paid) work schedule, unless imposed at short notice by management (evidence required).

Project Assessment