



Cognitive Science Taught Masters Degree



Project Guidelines (2013/2014)

This guide provides an overview of requirements for the research project within the taught masters programme (both M.A. and M.Sc.). Different regulations pertain those doing research degrees.

1. The Ground Rules

- [1] Project counts for 30% of your final grade.
- [2] Each project will be supervised by a member of staff. Responsibility for project conduct lies with the student.
- [3] Research topics and background reading are established before Christmas.
- [4] An interim report containing a comprehensive literature review in your chosen area is to be submitted by the end of March. Submission deadline: 5 p.m. Friday March 28th.
- [5] Project presentations will be in late May.
- [6] Final project reports are due in mid-August. Submission deadline: 5 p.m. Friday, August 15th.
- [7] Projects must achieve at least a passing grade for an overall pass in the Cognitive Science programme.

2. Project Content

In your project, you will identify a research area you are interested in, and to which you can meaningfully contribute. Your research area should be fixed before Christmas 2013.

You will then define your own contribution to the area, which may be of the form of a pilot experiment, a synthesis of two or more disparate approaches to a topic, the application of an existing model to a new area, or any other coherent contribution.

There will be three major deliverables during the project, each of which is discussed in more detail below. They are:

- [1] A presentation of your chosen research area to your classmates. **[20%]**
- [2] A comprehensive literature review of your chosen area, **[40%]** and
- [3] A conference submission describing your contribution. **[40%]**

3. Conducting Project Research

[1] Progress on the project will be checked in regular meetings with your project supervisor. Be prepared to summarize what you have done on the project each week.

[2] From the start of the project, you should have clear and explicit goals, along with estimates of when those goals are to be achieved. This requires you to write out a definite statement of milestones you hope to achieve. These should be discussed with your supervisor. Your project work will include at least the following steps, each of which should be planned in advance, with adequate time allotted to each:

- i. Project Topic selection (by Christmas)
- ii. Interim report: Literature Survey and Review. (March 28th)
- iii. Work Plan, including Experiment Design (if appropriate).
- iv. Research Work.
- v. Presentation of work in progress (May)
- vi. Evaluation of Results. Analysis.
- vii. Final Write up and Interpretation. (submit in August)

[3] Your literature survey (part of the interim report) should be *systematic*, rather than ad hoc. Before embarking on a trawl for papers, ask yourself what questions you want answered. It should also be based on reputable sources. Random web pages are not reliable. Preference must be given to material published in reputable peer-reviewed sources, such as journals and books. Don't be afraid to use the library!!!

[4] You should continue to read relevant material throughout. But a thorough review of the most pertinent literature needs to be completed before embarking on your research work proper.

[5] Your Interim Report serves to assure all concerned that your project is well underway and has a well-thought out plan. It should contain two things:

--A comprehensive literature review of your chosen research topic. This should typically include recent work as well as classic, textbook material. This is the deliverable upon which you will be graded. Your review should start with the description of a substantive field of research. It should identify relevant influential papers and bodies of work that serve to inform work in your chosen area. And it should motivate a research question which you will address.

--A roadmap for the remainder of the project, in which you set out your planned contribution, with milestones. This is just one or two pages that inform us about your concrete plans. This outline is not graded. Most comments below about writing and presentation styles apply equally to the Interim and Final reports.

There will be a 10 page maximum on the literature review part of the interim report. You may have a separate title page if you wish. References are included in the 10 page limit. The remainder of the material, summarizing your intended contribution to the field, should not take more than two pages.

4. Report Style

Your reports are intended to present your project as serious research. They should therefore be written in a professional manner, as if they were to be submitted to the annual AICS conference, which used to be held on a rotating basis within an Irish higher level institute or university. The project must be formatted in conformance with AICS submission guidelines for 2012, which in turn rely on the Springer Lecture Notes in Computer Science series. Macro files for preparing MS Word and LaTeX documents are available at <http://www.springer.de/comp/lncs/authors.html>. There is a maximum page limit of 10 pages on submissions, and hence on final reports. **This must be strictly adhered to.** Submissions that exceed 10 pages will be returned unread.

After reading many articles in your field, you will have a good idea of the writing conventions employed. Some tips:

[1] Do not use a flippant style, as if you were writing for your peers. Restrict yourself to the objective style used in journal articles.

[2] Structure your final report as an article, not a book. Thus you should have sections, not chapters. Figures and tables should be numbered consecutively throughout the whole work. Include a final acknowledgements section, a thorough bibliography, and possibly, appendices for material which is more detailed than appropriate for the main text.

[3] Start with a title; then an abstract; then the report proper, including an Introduction, Literature Review, Motivation for the work you have done, Presentation of your work, Discussion and Analysis. The acknowledgements section should be unnumbered, and come right before the bibliography. Appendices follow then at the rear, but are included in your overall page count. **A**void appendices where possible.

[4] Use graphics and tables wisely. Ask yourself which form is most effective and most helpful to the reader. Label and caption all figures and tables.

[5] Your final report is authored by you and you alone. Do not list your supervisor as a co-author.

[6] Avoid plagiarism!!!! If you are using another person's words, indicate this clearly, providing a full reference. If you are paraphrasing someone's ideas, let the reader know that this is what you are doing, and provide a reference. If you are new to citation, or are unsure how accidental plagiarism arises, please read the guidelines at http://www.ucd.ie/library/supporting_you/support_learning/plagiarism/.

5. Presentation

Towards the end of May, there will be a day of presentations. Each of you will present your project, as it stands, for 10 minutes, with 5 additional minutes for questions. The presentation will be graded and will account for 20% of your project total.

6. Miscellaneous

[1] Your project's subject matter may not be a simple continuation of work you have done previously (e.g. final year undergraduate project work). The completion of a project should constitute a learning experience, and should cover material and methods which are new to you.

[2] Experimental work is fine. Experiments should be designed and analyzed under close supervision from an experienced researcher. Experiments requiring human subject participation should be carried out as early as possible to catch and remedy unexpected problems (which are inevitable).

[3] Non-experimental work is fine too, but must constitute more than a review. E.g. a project which surveys prior work in two disjoint domains, with a view to interpreting each domain from the viewpoint of the other,

would be a suitable undertaking. One example might be the combination of a survey of auditory neurophysiology with a survey of some aspect of speech perception, and attempting to point out what the two literatures could learn from each other. Think *synthesis* rather than *review*.

[4] Every attempt should be made to relate data and experiments to underlying models. Existing models may be used, compared and contrasted, or you may develop a novel model.

[5] Quantity is no substitute for Quality. Final reports will be strictly limited in length. Page or word count is **not** a criterion used to evaluate the work, however.

7. Evaluation

Your final report will be graded independently by two readers. The report will be awarded a percentage mark, and not a letter grade. The entire project (interim report, presentation, final report) will account for 30% of your overall mark on the course. You must pass the project in its own right, as well as reaching an overall pass grade, in order to successfully complete the course.

After all marks have been awarded, the external examiner surveys all project reports and marks to ensure that all students are treated equally, despite the variety in subject matter and methods.

8. Final Remarks

This is your project. Although you may get advice from a number of sources, responsibility for project definition and execution lie with you. Make the most of the responsibility by ensuring that you are proud of your work. You should aim at a professional level of research, from review to conclusions.