

COMPGV99

Individual Project Guidelines

These are only suggested guidelines, your project supervisor might have better suggestions for the layout of your work.

The format requirements are not overly restrictive - for example there is no requirement for you to use a particular font style. However, do not use too many different typefaces in your report, or in general spend too much time developing an elaborate visual presentation. It is better to keep the look of your project report simple and straightforward. (An elaborate presentation can in fact create a negative impression, that the author thought the material was rather thin and felt an eye-catching style might disguise this!)

By all means use plotting/drawing packages to create graphs and figures, but if, for example, it is going to take you most of a week to learn to use a drawing package, you would be better advised to hand-draw your figures neatly and get on with something else. You would lose few, if any, marks for having hand-drawn a picture, and your time is precious.

Title Page:

As well as the title of the project, the year of submission, and your own name, you should also include the name(s) of your supervisor(s).

Disclaimer:

On the title page you must also include a disclaimer in the words given below:

This report is submitted as part requirement for the MSc Degree in 'Computer Graphics, Vision & Imaging', at University College London. It is substantially the result of my own work except where explicitly indicated in the text.

Then follow this with the words:

The report may be freely copied and distributed provided the source is explicitly acknowledged.

Or, if you prefer:

The report will be distributed to the internal and external examiners, but thereafter may not be copied or distributed except with permission from the author.

Report Structure:

This section covers *suggested* report structure. This is distinct from the format requirements which must be strictly adhered to by everyone. The advice given here should apply to the majority of projects. However each project is different, and you should get advice from your supervisor about how to structure your report.

Where the advice given here and that of your supervisor differ, you should follow your supervisor's advice as they will be taking into account the individual nature of your project.

Remember that you are writing a formal report, not a diary of your work. Organise your material in a structured way along the lines of the suggestions to follow. The advice below consists of a set of suggestions of material that you might include in your report. A particular report should only include those parts that are relevant.

On the page immediately following the title page you must have a short abstract (no more than one page in length) giving a descriptive summary of your project.

Introduction:

First and foremost, you should write about the most interesting or important parts of your project. Devote most space and time to this. For example:

- What design choices did you have along the way, and why did you make the choices you made?
- What was the most difficult part of the project?
- Why was it difficult?
- How did you overcome the difficulties?
- Did you discover anything novel?
- What did you learn?

Set the scene and problem statement/specification. Provide the motivation for reading this report. Introduce the structure of report (what you will cover in which chapters).

Background:

You should provide enough background to the reader for them to understand what the project is all about. For example:

- What the reader needs to know in order to understand the rest of the report. Examiners like to know that you have done some background research and that you know what else has been done in the field (where relevant). Try to include some references.
- Related work (if you know of any)
- What problem are you solving?
- Why are you solving it?
- How does this relate to other work in this area?
- What work does it build on?

For 'research-style' projects - ones in which a computational technique (for example neural networks, genetic algorithms, finite element analysis, ray tracing) is used to explore or extend the properties of a mathematical model, or to make predictions of some kind - it may be a good idea to split this chapter into two shorter ones, one covering the computational technique itself and one the area of application.

The Examiners are just as interested in the process you went through in performing your project work as the results you finally produced. So, make sure your reports concentrate on why you made the particular choices and decisions that you did. We are looking for reasoned arguments and for critical assessment. This is especially so where design, implementation and engineering decisions have been made not just on technical merit but under pressure of non-functional requirements and external influences.

Analysis and Design:

If your project involves designing a system, give a good high-level overview of your design. In many projects, the initial design and the final design differ somewhat. If the differences are interesting, write about them, and why the changes were made. If your design was not implemented fully, describe which parts you did implement, and which you didn't. If the reason you didn't implement everything is interesting (e.g. it turned out to be difficult for unexpected reasons), write about it.

Implementation:

Give code details (not a complete listing, but descriptions of key parts). Discuss the most important/interesting aspects. It probably won't be possible to discuss everything - give a rationale for what you *do* discuss.

Testing:

Test plan - how the program/system was verified. Put the actual test results in the Appendix.

Results:

This covers different areas to the 'Testing' chapter, and is appropriate for 'research style' projects. For such projects this chapter should detail the types of experiments/simulations that were carried out with the code written. Why were certain experiments carried out but not others? What were the important parameters in the simulation and how did they affect the results? If there are very many graphs and tables associated with this chapter they may be put in the Appendix, but it is generally better to keep these close to the text they illustrate, as this is easier for the reader.

Conclusions, Evaluation and Further Work:

What have you achieved? Give a critical appraisal (evaluation) of your own work - how could the work be taken further (perhaps by another student next year)?

Appendices:

Please use appendices as necessary.

Bibliography:

Give publication details for all the references you have made in the report.

Inclusion of Project Plan and Interim Reports:

If you handed in these documents (which will be the case for the vast majority of you), please also put copies of them in the Appendix of your report. However you should note that you are being asked to do this in order to comply with a request from the external examiners, and that these documents will not be part of the formal internal assessment of your project by the 1st/2nd markers, in other words, if you didn't complete one or other of these documents for some reason, this will not be a reason for your losing marks.

Other Format Requirements:

The total report length should under no circumstances exceed 120 pages; most projects are somewhat shorter. There is no value in trying to artificially lengthen your project by 'padding' it. Each project is unique and has its own natural length, and you will probably know when you have said everything that you think needs to be said. If in doubt, of course, ask your supervisor if they think you've included everything that's relevant.

You are strongly recommended to use 12 point type and 1.5 or double spacing. On no account should you use a typeface less than 10 points - it's unreadable.

Pages should be numbered (in case they become accidentally separated before the report has been bound).

It must be possible for the whole work to be bound in a single volume.