

COMP3821/9801: Extended Algorithm Design and Analysis

Project Proposal Specification and Marking Rubric

Due Date: 01/03/2024

This document outlines the specification of the proposal component of your projects, and provides a marking rubric that your mentors will use for grading.

While the project is designed to be completed in groups of two to four, we are aware that due to group members dropping the course there may be some students who find themselves working individually. Where possible, we would prefer if these students are able to join other groups. If you find yourself in this position, please discuss this with your mentors as soon as possible.

Proposal Specification

Your proposal should contain the following sections:

1. A cover page with your topic title, and the names and zIDs each of your group members. This does not count towards the recommended length of 2–3 pages.
2. An introduction briefly outlining your chosen topic and describing the nature of your project (theoretical, scholarly, experimental, educational, creative, or other).
3. A *brief* survey of the chosen topic (including any currently known results and open conjectures). This should include some discussion of related topics from the course where relevant, and your motivations for the project. Where possible, you should include some remarks on real-work applications of your chosen topic.
4. A plan outlining what you aim to produce by the end of the project, and some of the work you need to complete along the way to get there.
 - For theoretical projects, this could include special cases of your problem of interest you may aim to solve, and/or some approaches you wish to investigate.
 - For scholarly projects, this may be a summary of topics you wish to delve into deeper.
 - For experimental projects, this could be a list of experiments you are aiming to complete with reasoning as to why you have chosen them.
 - For educational projects, you should identify what medium you will be using (i.e. web-page, interactive demos, video, textbook style writing), and what information it will cover.
 - For creative projects, you should identify what you wish to produce by the end of the term, and break this down into clear sub-tasks.

Keep in mind that this proposal will not necessarily reflect your completed project. It is expected that many of you will change your plans due to unforeseen discoveries as you proceed throughout the term.

Marking Rubric

Survey [6 Marks]	
Grade	Level of Achievement
0–2	The survey does not sufficiently cover the background required for work on the project. There may be some sources presented, but it is clear that much more review will be required throughout the course of the project.
3–4	The survey covers the necessary background for the topic, but neglects significant aspects. Sources are adequately referenced. There is some discussion of the students motivations for choosing the topic.
5–6	The survey covers a wide range of sources and appropriately references them. The students have explained their motivation for the topic, and provided well researched detail on potential real world applications where applicable.
Plan [7 Marks]	
Grade	Level of Achievement
0–2	No clear description of the aims of the project. Plan is not present or does not have sufficient details to demonstrate sufficient consideration of the difficulty involved with the chosen topic.
3–4	Project aims and plan are presented, but lack detail and a logical plan of investigation. There is enough of a plan to believe that the project is feasible. No specific plan.
5–6	Project aims and plan are presented and include some details. There is enough of a plan to believe that the project is feasible, and that student understands the resources and time required.
7	Project aims and plan are clearly presented and detailed, and tie in well with the survey of the topic. The project plan demonstrates a logical and feasible course of action, with realistic targets.
Document Presentation [2 Marks]	
Grade	Level of Achievement
0	Presentation is poor to the extent that it impedes reading of the document. Examples include many incomplete citations, unintelligible grammar, figures or tables not labelled or badly inconsistent document formatting.
1	Appropriate use of section and sub-section heading structures. Figures and diagrams are labelled, formatting is consistent, references in text match reference list (and vice versa), pictures are clear and attributed, sections clearly labelled. There may be superfluous material present, such as unnecessary, repetitive or unusually large figures, unnecessarily lengthy text, unusually wide margins, unnecessary appendices, etc.
2	Everything from above, and appropriate judgement in the placement data, tables or figures in the body of the work or the appendices. Figures and diagrams are correctly and clearly labelled, text spacing aids readability, consistent formatting. Text is clear and concise.