CM3203 Initial Plan

The project is a substantial part of your degree. It can significantly affect the degree classification and whether or not you pass the degree. The initial plan is to ensure you **understand what your project requires you to do** and **how you will complete it successfully**. You must submit an initial plan at the beginning of your project, usually at the start of spring week 2 (the exact deadline is listed in <u>PATS</u>).

We suggest you write an initial version of your plan (based on what you know about the project from the selection phase), arrange a meeting with your supervisor to discuss it, and then revise it before the deadline. There is little time to complete the plan, so contact your supervisor for a spring week 1 meeting early on (in the week before spring week 1, latest Monday, spring week 1).

Note that this is an initial plan. You can, and most likely should, adjust the plan as you progress. However, with the initial plan, you are prescribing what you intend to deliver for your project. Any more significant changes, particularly affecting the aims and objectives, should be discussed and agreed upon with your supervisor.

Contents and Structure

The structure laid out for the initial plan below must be followed precisely. You should have **all the sections** listed; more information is not required. You must follow the **Typesetting Rules** for writing the plan.

The main body of your initial plan (all sections listed below) should be at most **2,000 words**, excluding any figures, tables and references. This limit is a maximum, not a target. Enough information such that a competent computer scientist can understand your plan should be given. You may want to cite references if specific background knowledge is necessary.

Project Title

The plan's title should be "Initial Plan:" followed by the project title. List yourself as an author and your supervisor as such. It is sufficient to have the title and author/supervisor information at the top of a page in article style, but you can also have a separate title page if you prefer.

The project title is your current working title and should accurately represent the project you intend to undertake. You can change it for the final report.

Also, adjust the title in the PATS project information accordingly (without "Initial Plan: ", of course). You can, but do not have to now, change the project description in line with your plan.

Project Description

The document's first section must be a **brief description of your project**. Start with explaining the **context** and **motivation** for the project, followed by an **outline of the problem** and the **specific version** of it that you intend to address. You can include a **short explanation of how you intend to approach the solution**, as far as this is clear at this stage. You can start with the proposal used to select your project but should refine and expand it based on your understanding and discussions with your supervisor.

Here, in particular, you may **cite background material** relating to the origins of the problem, potential approaches, etc., as appropriate (no need for a complete background section, but only to help the reader understand the problem, context and your ideas to approach it). See **References** for how to cite these with a references section at the end of the plan (see below).

You may also want to include a **short justification of why the problem is a sufficient challenge for the project module.** Also, ensure the description is about a **specific problem** you can address within the constraints of the project and not only a general idea.

Half a page to one page should be sufficient for this.

Aims and Objectives

The document's second section must be a list of more detailed **aims and objectives** for your project. These are statements of what you set out to achieve with your project. Try to be as specific as possible at this stage, but avoid getting into too many details that may change later; this is not a list of requirements. You can describe an **overall aim** followed by **about two to four specific objectives** you wish to achieve.

Try to be **realistic** with your objectives of what you expect to be able to achieve within the constraints of the project. That does not mean your objectives cannot be **ambitious**, and it does not have to be sure you can achieve them fully. The **objectives can be adjusted** during the problem, but you **must agree on significant changes with your supervisor**.

For each objective, briefly **consider any likely or highly likely risks** that may be involved in achieving them and briefly outline mitigations (changes to the objectives). If you foresee no such risks, say so, but include a brief justification. There is no need to consider unlikely risks. Any risks covered by the university's extenuating circumstances policy should not be considered.

Note, the objectives should be **about the problem**. That means including objectives on acquiring any necessary skills is not suitable (but they may form part of the risks).

Half a page should be sufficient for this.

Feasibility

In the document's third section, discuss any issues that may affect the feasibility of the project. This depends on the project; you should discuss this with your supervisor. General issues to consider, as already raised during project selection (see Project Proposals), are

· ethical approval;

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- · legal issues such as intellectual property and licensing;
- any special resources needed, e.g. non-standard hardware or special software.

List any issues that may affect your project and its feasibility and how they will be handled. If a likely or highly likely risk is involved (e.g. ethical approval delayed or denied; resources not available), include a discussion of risk mitigation. If you foresee no such issues, state so briefly (with a justification if your project description may suggest otherwise).

Include any necessary steps to address these issues in your work plan.

Note that the student and supervisor are responsible for ensuring the project is feasible to execute in principle.

Half a page should be sufficient for this and often it may be much less. In exceptional situations/complex issues, you may want to include additional material in the support files section (this does not count towards the word limit) and discuss this with the project coordinator as well as the supervisor.

Work Plan

The document's last section must be a **work plan stating what you are working on and when**. This must include clear **milestones** of what you expect to achieve by which date and also show how you intend to achieve these milestones via tasks. A milestone is a flag of something provably achieved, and tasks lead up to them. Also include **deliverables** as outcomes of your project and when you expect to produce them.

Ensure your tasks, milestones, and deliverables are **clear and project specific**. Generic items such as producing a final report (what specifically do you produce for it?), reading background (what topics?), working on the solution (what tasks? components/features?), etc., are not sufficient. Link the tasks to milestones and, ultimately, deliverables with expected times when they are executed or completed.

Your work plan should **cover the period from spring week 1 to 12** (including the initial plan preparation). Consider the spring break during the term and any other commitments, such as other modules. Provide your best estimates for the plan. Remember, though, that this is an initial plan that is **likely to change**, and you will have to review it during the project's progress. In particular, if you miss a milestone or deliverable, you will have to replan. The supervisor can help with this, but you have to contact them and discuss any issues, as you are responsible for managing the project.

Generally, your work is likely, to begin with **investigating the context and background** of your problem (consider topics for your specific items). You may want to reserve some time for this at the start, but do not spend more than a week or two on it; some topics may have to be considered later. The background is ongoing work as you progress and understand more about the problem.

This is followed by quite some time to work on addressing the problem. This, particularly, depends on the methodology you adapt and may consist of some iterations. You may not know all the tasks at the start, but consider in which sequence you expect to realise the features, how many iterations you execute, or investigate the issues towards achieving your objectives. A good guide here is to try to complete the work around the spring break (depending on when in the term it takes place precisely).

Then reserve some time for **evaluating** your results. This is often based on results you obtained during working on the problem. So it may be quite a brief period, say 1 week, but you must have some time to draw all the results together. It is also important here to consider any time required to compute expensive results (e.g. training machine learning models), build any hardware (e.g. 3D printing), user tests (e.g. getting user survey data), etc. These may have to be completed before you can evaluate your approach, but they can take some time, while you may not have much to do. Are there other tasks (on the project or other modules) you can complete while waiting for these results?

Then give yourself at least two weeks at the end of the project to **complete writing** the report. You should be documenting what you are doing throughout the project, but this is the time to draw this together into one coherent document. Do not plan to write the report last minute, and consider giving yourself some extra time for tasks that took longer than expected. Or you may have some extra time to complete additional work.

You are free to choose the **work plan format** that you think is best suited for your project and working style. This *may* be a <u>Gantt chart [https://en.wikipedia.org/wiki/Gantt chart]</u> (make sure this is reasonably readable in the report and not a confusing table over multiple pages; the work plan should not be in a support file). Given that you are a single person to work on the project, it may be sufficient to list in sequence what you are working on with a time scale and milestones/deliverables (with expected dates). Usually, a weekly scale for the work plan is a good choice. Take note of the deadlines for the deliverables listed in your <u>PATS</u> project.

You should typically **see your supervisor** once a week for a shorter time or once every two weeks for a longer time. The expectation is a **30-minute meeting per week on average over 12 weeks**, but the time can be distributed differently over the period. The details of these arrangements are for you to agree with your supervisor. We recommend including the schedule in your time plan, especially if your supervisor is not always available during the term. (You are responsible to organise meetings with your supervisor, but if you cannot get hold of them within the agreed schedule, contact the project coordinator; consider that usually, it can take up to a week for the supervisor to be able to get back to you, even if often they are faster).

One page should be sufficient for this.

References

If you cite any work, include a **reference section** at the end of the document. We recommend having a few references, but it is not strictly necessary. References do not count towards the word limit. See **References** for the format.

Submission

You must submit your plan by the deadline on <u>PATS</u> in the initial plan tab for your project. This only needs to be a single PDF file containing the sections described above. Additional material can be provided, but it is unlikely to be relevant to the marks unless some exceptional circumstances emerge from the discussions with your supervisor or project coordinator (e.g. in case of complex feasibility issues).

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Please see the <u>Submission Guide</u> for information about submitting a report via <u>PATS</u>. Also, ensure the **project title** in the **project description** on <u>PATS</u> matches the project title in the initial plan (the description does not yet have to be adjusted, even if you are allowed to update it according to your plan).

Assessment

Before you submit the final version, you should **discuss the plan with your supervisor** to make sure both of you agree on what your project entails and receive some **feed-forward** towards the initial plan assessment. If the supervisor is unavailable for some reason in spring week 1 for this meeting, please briefly state this in the plan. In this case, the markers should consider that you may not have received any additional information on the project proposal. But you should already have a good idea of the project when you have selected the project (from the proposal and the supervisor meeting then).

The initial plan is worth 5% of the module's total mark and marked by your supervisor and moderator independently. Expect to receive feedback on the plan within two weeks, but it can take up to four weeks (longer in exceptional circumstances - contact the project coordinator if you have not received your results). The results will be on <u>PATS</u>, and you will receive an e-mail when they are available. **Do not wait** until you receive the results, but continue to work on the project immediately after you have submitted the plan. When you receive the plan marks, you may want to **review** your plan with your supervisor and make any adjustments arising from this.

The supervisor and moderator do not discuss their assessment (due to its low contribution to the final mark), so you get their individual opinions and marks on your project. The total mark of the plan is the average of their individual marks. Consider both of their feedback as they may come from different backgrounds, and keep in mind that the moderator may not know more about your project than what you describe in the plan, while the supervisor should know a lot more about its context.

Assessment Criteria

Your supervisor and moderator will mark your plan according to the following criteria:

- Title and project description accurately represent the project and are suitable for the module you are taking;
- · Aims and objectives are sufficiently detailed and provide a suitable challenge for the project;
- · Feasibility of the project with appropriate risk management has been suitably considered;
- · Work plan is feasible, sufficiently specific to the project, and has clear deliverables, milestones and tasks

on the following scale:

- 0 marks: No suitable plan has been submitted.
- 1 mark: Only a partial plan with significant deficiencies/omissions has been submitted.
- 2 marks: A plan with a project title and description, aims and objectives, feasibility and time plan section has been submitted...
- 3 marks: ...which is feasible to execute within the constraints of the project...
- 4 marks: ...and has sufficient project-specific details and clear milestones...
- 5 marks: ...and shows originality, and professionalism and/or scholarship.

You will receive their individual feedback and mark via PATS and the total mark of the project is the average of their individual marks.

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