

SPS120 - Project 3 Instructions

*****Be sure to read all instructions carefully as missed components will result in lost marks*****

For your final project, groups will prepare and submit Documentation and a video Presentation on a piece of emerging technology. You will be incorporating aspects of the problem solving method you have used in the previous 2 projects but you will also be required to do some research on your chosen topic. Where you focused on small, specific problems in the previous two projects, Project 3 will have you exploring a much larger, broader problem attached to a technology. This project will include:

1. An overview of your chosen technology
 - What exactly is it and what does it do?
2. How this technology helps society / humanity
 - What are the pros and benefits to this technology?
3. Problems / issues / concerns with this technology
 - What are the detriments or downsides to this technology?
 - Costs, effects on the job market, political / cultural ramifications, pollutions etc.
4. Analysis of one major problem and its causes
5. Solutions to this chosen problem
6. Future considerations / where the technology is moving
 - What do the next 5-10 years look like for this technology
 - How might it change or evolve?

You will have to do some research for this project:

- Documentation must include a minimum of 5 references
- References must be from **reputable** websites
- References must be recent (maximum of 5 years old)
- To be included in a references list in your documentation
 - Use MLA format ([see this website on how to use this format](#))

Documentation

Create a clear, well-formatted document package that includes all of the requirements listed below.

Be sure to use consistent formatting, label your diagrams appropriately, and use proper headers or titles. Use arial font – size 12 for body, size 18 for headers. All pages must be numbered.

Your documentation package must be in either **MS Word or PDF** format and must include the following pages:

1. a cover page that includes all group members' full names, student numbers, group name, and a **link to your MS Stream hosted video presentation**. – 1 page
2. Overview of Technology – 1 page
3. How this technology benefits humanity / society – 1 page
4. Overview of problems with this technology and a statement of which problem you will be analyzing for the following section – 1 page
5. An Ishikawa diagram of potential causes (at least 5 causes) for your chosen problem along with an explanation of the rationale behind choosing these causes – 2 pages
6. 5 potential solutions for this problem accompanied by a short explanation for why they have been chosen – 1 page
7. Trade off analysis for your chosen solutions – 1 page
8. Flow chart of how you would implement your solutions – 1 page
9. Explanation of the rationale behind your flow chart – 1-2 pages
10. Overview of the future of this technology, how it might change and evolve – 1 page
11. Reference list – 1 page
12. A copy of your group's script for your presentation (see "presentation" section of this document for more info) – as many pages as necessary

You are also required to submit your completed Project Management document alongside your documentation package.

You do **NOT** need to include a Mind Map in this project.

Diagrams must be clean and professional looking. You will be marked on this! It is suggested that you use draw.io. This is a free, simple to use diagram creator. You can also use MS Visio if you have it but draw.io has everything you need to create simple, clean, and professional looking diagrams.

Spelling and grammar matter! While some consideration and leniency will be given in this area, an abundance of spelling or grammatical errors will result in lost marks.

Whether you use MS Word or PDF as your chosen document format, you must use the following naming convention for your documentation package and MS Stream video title:

"SPS120XX-GROUPNAME-PROJECT3"

"XX" will be replaced by your course section (AA, BB, CC, DD, EE, FF)

"GROUPNAME" will be replaced by your group name.

Marks will be deducted for not following the documentation file naming convention!!

Presentation

Create a video presentation that covers:

1. Overview of technology
2. How this technology helps society/humanity
3. Problems/issues/concerns with this technology
4. One problem you have chosen to analyze
 - a. The Ishikawa Diagram for this problem
 - b. Multiple solutions for this problem
 - c. Trade-off analysis for solutions to this problem
 - d. Flow Chart and explanation of solution implementations for this problem
5. The future of this technology

It is up to you how you divide up screen time but all group members should appear on screen for (roughly) an even amount of time. All presenters must introduce themselves.

Video must be **between 15 and 25 minutes** in length.

Video must include an intro **and** outro graphic that shows your class section, group name, and group members' names.

Videos must include graphics that help show the information you are discussing. Graphics need to be easily readable. It is up to you to decide which graphics you use and how you present them. You must use a minimum of 10 graphics.

If you use any graphics that don't belong to you (images taken from the internet), you must source them in the reference list at the end of your documentation. These do not count towards your required 5 written references.

Write up a script for your video. This should take the information you've written in your documentation package and condense it into presentable chunks. A well written script is easy to rehearse and memorize. Marks will be deducted if it is obvious you are reading while presenting. Your script must be attached to the end of your documentation package as per earlier instructions in this document.

DO NOT SIMPLY COPY AND PASTE WHAT YOU HAVE IN YOUR DOCUMENTATION.

Project Management

Use the Project Management Document to track your group's work throughout this project.

How to Submit

Project 3 Preparation Plan

Your “Project 3 Preparation Plan” will be submitted via Blackboard using the “Project Management Document”. You can find the “Project 3 Preparation Plan Submission” link under “Projects”.

For the Project 3 Preparation Plan, groups must submit a copy of their Project Management Document (the template can be found in Blackboard) with the following sections filled in:

- *Project Team page (all info)*
- *Project Execution page*
 - o Student names, target sprint #
- *Plan and Retrospective*
 - o Planned start, planned finish, what is to be completed for each sprint

Submissions must be named as “SPS120XX-GROUPNAME-P3PREP”.

When you are ready, submit your Excel file by clicking on “Browse my computer” in the “Attach Files” area.

Project 3 Final

Your “Project 3 Final” documentation packages will be submitted via Blackboard. You can find the “Project 3 Final Submission” link under “Projects”.

The Project 3 Final is your fully completed documentation package including everything listed on page 2 of this document. **Please double and triple check that you have not missed anything in the package!** Remember to use the correct file name – “SPS120XX-GROUPNAME-PROJECT3”.

When you are ready to submit your completed documentation package, submit your **MS Word or PDF file** and your **Project Management Excel document** by clicking on “Browse my computer” in the “Attach Files” area.

Due Date:

Project 3 Preparation Plan: Week 9 (End of day on the same day Project 3 is assigned)

Project 3 Final: Week 12 (See Blackboard for exact date)

Please be aware that there is a late penalty of 20% per day up to a maximum of 5 days after which you will receive a mark of 0 across all components of the project.

Marking Rubric – 35% of Total Grade

Mark Breakdown:

Problem Solving – 20 marks

Major, actual problem selected – 1 mark

Ishikawa Diagram completed with enough causes – 2 marks

Explanation of possible causes in Ishikawa Diagram – 3 marks

Multiple logical and practical solutions provided – 3 marks

Ample explanation of rationale behind each solution provided – 3 marks

Trade Off Analysis Completed with proper explanation – 3 marks

Logical Flow Chart of Implementation Completed – 2 marks

Detailed explanation of flow chart – 3 marks

Documentation – 20 marks

All sections included in document (see page 2 of this document) – 3 marks

Documentation is well formatted – 3 marks

Documentation is clear and concise – 2 marks

Documentation contains proper spelling and grammar – 3 marks

Diagrams are clean, clear, and professional – 2 marks

Diagrams are labeled appropriately – 1 mark

Topic is well researched with a minimum of 5 references used – 2 marks

Documentation includes cover page with necessary information – 1 mark

Documentation pages are numbered – 1 mark

Documentation is in PDF or MS Word format – 1 mark

Documentation uses specified naming convention – 1 mark

Presentation – 20 marks

Presentation between 15 and 25 minutes – 2 marks

Presentation Video visuals are clear – 2 marks

Presentation Video audio is clear – 2 marks

All presenters introduce themselves – 1 mark

Presentation Video includes explanations and graphics for all aspects of project – 5 marks

- Overview of technology
- How this technology helps society/humanity
- Problems/issues/concerns with this technology
- One problem you have chosen to analyze
 - o The Ishikawa Diagram for this problem
 - o Multiple solutions for this problem
 - o Trade-off analysis for solutions to this problem
 - o Flow Chart and explanation of solution implementations for this problem
- The future of this technology

Presenters have rehearsed and memorized their parts, are not reading from a script – 3 marks

Presentation video contains intro and outro graphic with necessary information – 1 marks

Presentation includes 10 quality, readable graphics of information being discussed – 2 marks

Overall professionalism of video – 2 marks

Project Management – 20 marks

Project Preparations Plan with required info submitted – 4 marks

Project 3 Checkpoint 1 – 4 marks

Project 3 Checkpoint 2 – 4 marks

Completed PM Document submitted with Project 3 Final documentation package – 5 marks

Project Management post-mortem provides sufficient detail on project process – 3 marks