

Guidelines for Feasibility Assessments

The feasibility assessments have two purposes: (1) to help you think through early on how you will tackle your project, and (2) to check whether the project is likely to be technically and economically viable. Each one will be submitted in two parts: a written document (preferably submitted as PDF) that addresses the first point, and a spreadsheet file that addresses the second. The written document should have the structure outlined below:

Part 1: Summary

One page with the following information:

- The name of the class
- The project title
- The names of team members, with email addresses
- The date
- A one-paragraph abstract describing the project

The abstract should specify the problem being addressed, how it will be tackled, and the expected outcome. It should be understandable by professionals familiar with energy problems in general but not your particular project. It will usually summarize the information in the next section so you should probably plan to write it last.

The page should be laid out neatly and professionally. Think of it as a standalone document you might circulate to organizations that might fund your work or potentially be interested in using it. In this case, we'll send it to one or more outside professionals who may be appropriate reviewers for your final project. Note: since it will be circulated as a standalone document, it should not be labeled "Part 1".

Part 2: Proposed Approach and Data Requirements

The next part of the document should start on a new page and include sections with the information listed below. This part will be used internally by you and the instructors to plan out the project and will not be sent to outsiders.

1. Project Title

This and the next two sections repeat information from the summary page.

2. Names of Team Members

3. Date

4. Problem Statement

A brief explanation of the problem the project will address, why it is important, and how the project would help. This section should be 1-2 single spaced pages and go into more detail than the abstract. It can usually be a revised and updated version of the text in your original proposal. The more concrete and specific you can make the problem statement, the easier it will be to design and carry out the project.

5. Outline of Analysis

A sketch of the calculations needed to show how your project will perform. This section can consist of subheadings followed by bullet points or other terse descriptions of what you expect to do. For example, if you wanted to calculate the payoff from switching from a conventional to a hybrid car, you might want to have a subsections on “capital costs”, “fuel costs”, “operation and maintenance”, and so on. Then in the “fuel costs” section you would outline how you would calculate the life-cycle fuel costs of each vehicle.

6. Data Requirements

This section should consist of a brief summary followed by one or more tables with one row for each variable or item of data you’ll need and the following columns: (1) a short name for the variable; (2) a description of it; (3) its units; (4) where you think you will eventually be able to get it; and (5) a rough placeholder value for the feasibility analysis. The table should look something like this:

Table 1: Fuel Consumption Data Required

Name	Description	Units	Likely Source	Placeholder
miles	Average miles driven per year	mi	Edmunds	12,000
mpg_con	MPG for a conventional car	mi/gal	EPA or DOT website	20
mpg_hyb	MPG for a hybrid car	mi/gal	EPA or DOT website	40

Be sure that the list of data matches your outline in part 5 as closely as possible.

7. Other Considerations

This section is optional but could include, for example, any interviews or qualitative analysis you think you might need to do to find out if your project is really viable.

Part 3: Quantitative Results

This section should begin on a separate page and consist of a professionally-formatted printout of the spreadsheet you use for your feasibility analysis. The spreadsheet should be clearly organized and internally documented so that other people could understand and use it with only the spreadsheet itself and your overall feasibility analysis as documentation. The actual spreadsheet you used for this section should be submitted with the PDF.