Experiment 1

Pump Characterization

Group AB-A

Group Member 1 (Task Leader)

Group Member 2

Group Member 3

# Introduction

## Purpose and Scope

Include the purpose and scope. Objectives must be specific, e.g.:

* Point 1
* Point 2
* Point 3

***The assignment memos are purposefully vague, so you must define more specific objectives.*** Otherwise, you will not have a clear purpose for your experiments and analysis.

## Relevant Theory and Literature

Summarize the relevant theory. This is my first equation:

(1)

Include key equations and sources but omit details such as derivations. Equations should be separate from the text and numbered. Here is a fake reference1.

*State your hypothesis here at the end*

# Materials and Methods

## Equipment

Describe available equipment and how you will use it to achieve your objectives.

Include a schematic showing all key devices, controls, and instrumentation.

## Procedure

Explain what data you will collect. Be as specific as possible. For example, give ranges over which variables will be adjusted number of measurements at each condition, etc.

## Safety Issues

Note safety issues for this experiment (omit "obvious" issues such as sharp objects, electrical power, etc. unless you believe there is a specific safety issue). Briefly note possible hazards of chemicals used.

# Discussion

Explain how the data will be analyzed. You must include the sample calculations in the appendix.

Give the literature and other information at your disposal, your expectations (trends, likely errors, etc).

Comment on alternative approaches you considered, if any.

Given the time available, will you be able to collect enough data to draw convincing conclusions?

# References

**1.** Lewis LM, Edwards MC, Meyers ZR, Talbot Jr CC, Hao H, Blum D. Replication Study: Transcriptional amplification in tumor cells with elevated c-Myc. *Elife.* 2018;7:e30274.

# Appendix 1

Include sample calculations that show how you will analyze the data, including error analysis. Use an equation editor. Include all required unit conversions. Do your best to use realistic numerical values (a reasonable guess is OK).

# Member Contributions

Clearly state the contribution of each member in the report.