Title Page: Engineering Laboratory Report,
CVEN 365 – Geotechnical Engineering

TAMUG Writing Lab (Your Name)
Course and Section Numbers
Group Number
Date

TAMUG Writing Lab's Template for Preparing an Engineering Laboratory Report
CVEN 365 – Intro. to Geotechnical Engineering
Prepared By: The TAMUG Writing Lab

Step 1: Read the assignment. Read it thoroughly. Make sure you understand all the required elements. Talk to your professor or TA to clear up any requirements you may have questions about. This will save you time and points as you polish your report.

Step 2: The first thing you should do is create a paste file. This is a document in Microsoft Word (or your word processing software of choice) where you compile all the information pertinent to your lab report. This document is not meant to be a readable draft; rather, it is a place for you to gather all your thoughts and information in one convenient spot.

To create this file, use general headings as place-holders, and add information under the appropriate headings as you receive it.

Example:

Title:
You may have nothing more here than the name of the experiment, at first. Remember, it is often much easier to title a paper after it is fully written.

Table of Contents: Include all section headings.

Abstract:
You will likely have no information here. An abstract, like a title, should be one of the last parts of the paper written, as it is a summary of the rest of the paper. However, it is a good idea to leave a place-holder for it, so you do not forget to add it later.

Introduction:
As you research your topic, gather information pertinent to your topic in this section. You should also gather diagrams/pictures of your experimental apparatus in this section.

Experimental Procedures:
This section is where you should outline your experimental procedures. Many students find this to be the easiest section to begin writing, as it is simply a factual account of your experiment.

Results and Discussion:
Gather the results of your experiment in this section.

Conclusion:
This section may contain little information in the paste file. Gather any information on what this experiment accomplished.

Appendix:
Gather any formulas and calculations used in the experiment in this section. Also, include tables of raw data.

References:
As you research your topic, include all references that may have useful information. If you decide later not to use information from a reference, you can easily delete that reference later. Use the appropriate format for citation, and you will only have to

Step 3: Create an Initial Draft. This will be a fleshing-out of your original paste file. Starting with the same place-holder headings, write each section with the information you gathered in your paste file. Write this draft in normal language; i.e., write like you speak. Polishing will take place later.

Keep the assignment requirements and rubric values for each section in your mind as a guide to polishing.

TITLE PAGE (5 pts)**:**
Title should be specific. See title page for this handout.

Excellent (5 points)	Good (4 points)	My Estimate
-Title is present -Name is present -Course and section #'s are present. -Group # is present -Date is recorded and accurate	-Title and name are present -Date is recorded and accurate -One of the following is missing: Course #, Section #, or Group #	

TABLE OF CONTENTS:
A table of contents must follow the title page. The table must identify the section headings of the report and the pages on which they are found.

ABSTRACT (10 pts):
Summarize the report in one paragraph. It should not include data or references. Generally, this is written last.

Excellent (5 points)	Good (4 points)	My Estimate
- States which experiment was performed - Briefly summarizes the results of the experiment	- States which experiment was performed Only briefly summarizes the results of the experiment	

Draft abstract here.

INTRODUCTION (10 pts):
Describe the experiment, including the objective, and its relevance to hydraulic engineering. Include **important** background theory and diagrams of experimental apparatus. Also include any equations, explanation of variables and diagrams or pictures of all apparatus used.

Excellent (5 points)	Good (4 points)	My Estimate
-Briefly describe the overall experiment and its relevance to hydraulic engineering -Clearly state the objective of the experiment -Include important background theory to the experiment -Include diagrams of experimental apparatus	-Briefly describe the overall experiment and its relevance to hydraulic engineering -Clearly state the objective of the experiment -Include important background theory to the experiment	

Insert temporary introduction here – revise after document is complete, or begin in the middle – write other sections first.

EXPERIMENTAL PROCEDURES (20 pts): Write a detailed description of your experimental procedures in your own words. It is a narrative, rather than a set of instructions, and contains necessary figures to help explain how the experiment was conducted.

Excellent (5 points)	Good (4 points)	My Estimate
-Procedure is a brief summary of each of the steps taken in completing the lab. -It is NOT an exhaustive description containing minute details. -It is NOT copied straight from the lab manual.	-Procedure is a summary of each of the steps taken in completing the lab.	

Insert draft here – this section almost writes itself.
Describe what you did; in the sequence you did it.

RESULTS AND DISCUSSION (30 pts): Include the data, analysis, tables and discuss the results. Be sure to discuss the results and information in the tables

Excellent (5 points)	Good (4 points)	My Estimate
-Data is presented, analyzed, and discussed thoroughly, and in a professional format with clearly identified labels. -Results are discussed and their significance addressed. -Error analysis is discussed along with weaknesses in methodology of procedure or possible malfunctioning of the instruments -Possible solutions and future needs for improving results are discussed. -No errors in graphing, labeling, calculations, or significant figures.	-Data is presented, analyzed, and discussed thoroughly, and in a professional format with clearly identified labels. -Results are discussed and their significance addressed. -Error analysis is briefly discussed. -No more than 2 errors in graphing, labeling, calculations, or significant figures.	

Insert draft here and present data in tables and figures (see sample provided).
Discuss sources of error, solutions to problems encountered, and recommended modifications for future experiments.

CONCLUSION (15 pts):
Summarize the accomplishments in the experiment and its implication for future studies. Make sure it is aligned with your experiment's purpose, which was stated in the introduction. NO EQUATIONS in this section.

Excellent (5 points)	Good (4 points)	My Estimate
-Succinctly describe what can be concluded from the experimental results. -It is aligned with a well-written statement of purpose in the introduction section of the lab.	-Briefly describes what can be concluded form the experimental results.	

Insert draft here – include the purpose, as stated in the Introduction.
Comment on the findings of the experiment and its value in future applications.

APPENDIX (5 pts):
Include sample hand calculations and tables of raw data.

Excellent (5 points)	Good (4 points)	My Estimate
-Include sample hand calculations for the analysis and any additional tables of raw data -Hand calculations are clear, legible, with units and answers underlined -Show all the steps necessary to solve the problem	-Includes sample hand calculations for analysis and any additional tables of raw data. -Hand calculations are clear and legible. However, units are omitted or answers are not underlined. -Shows all the steps necessary to solve the problem.	

Insert your calculations, raw data, and miscellaneous information here.
Format for numbering pages is instructor preference – consult your instructor.

REFERENCE
If materials, equations, constants, and data are used from a text or handbook or any other source, the source must be referenced to in the text (Author, date) and full reference or citation must be included in this section.

ESTIMATE YOUR SCORE: *Note – each criterion has a multiplier based on the rubric. To estimate your overall grade, insert your estimated point value X the multiplier provided in the rubric for the class.*

Format	Title Page	Abstract	Introduction	Experimental Procedures	Results/ Discussion	Conclusion	Appendix	Total