

Chemical Engineering 4903 Letter Report Grading Rubric

Team Members _____

Project _____

PRELIMINARY ORAL EXAM

Did the team come prepared to the exam, that is, familiar with safety considerations, the equipment SOP, and the relevant theory for the project?
Did the team come prepared with a well-thought-out experimental plan to meet the project objectives? Did all team members participate in the oral exam? _____/5

LABORATORY PERFORMANCE (Graded by Bob Cox)

Did all team members follow all safety regulations listed in the lab handbook? Wear safety glasses at all times in the lab? Did the team properly label waste containers and containers used for temporary storage of chemicals with contents, concentration, and owner information? Did the team members bring food in the lab? Did the team properly shut down all equipment and return all chemicals, tools, and supplies by 5 pm? _____/10

LAB BOOK

Did the team keep records in a lab book in a manner acceptable in industry? Were the pages numbered, signed, and dated? By use of the team's notes, could the team or a colleague repeat the work years from now? _____/2

LETTER REPORT

OVERVIEW

Does the overview concisely state all of the objectives of the project?
Does the overview concisely summarize the conclusions of the project with respect to each objective? Does the summary mention important unexpected discoveries that were not part of the original objectives? _____/15

APPARATUS AND PROCEDURE

Does this section give a brief description of experimental procedures, especially innovative techniques, problems encountered? _____/10

Is enough information given about each piece of equipment used (i.e. thermocouples, pH meters, etc.) so that the student working five years from now could purchase the same equipment? (excluding unit ops equipment). _____/3

Does this section explain why a particular experimental approach was chosen, rather than other obvious possible experimental approaches? _____/10

RESULTS AND DISCUSSION OF RESULTS

Does every figure and data table (0 – 3 maximum) included in this section have a point to make that is discussed in the text? Does the report author make descriptive statements of fact about each figure and table as well as speculations on the reasons for the data trends? Are the descriptive statements clearly distinguishable from the speculations? Are the data compared to model predictions and previous measurements of the same quantities reported in the literature? Are uncertainties given with significant figures only in reported values in the text and data tables? _____/15

Does this section contain all of the important equations used in the calculations of the data points appearing in the figures and tables, with appropriate citations to the literature sources from which the equations were taken? For each equation, are all the theoretical assumptions stated, and are all symbols defined in the text? _____/10

CONCLUSIONS AND RECOMMENDATIONS

For every project objective given in the OVERVIEW, does the report either give a conclusion that is clearly supported by the data, or explain why no conclusion could be obtained? If there were any important unexpected discoveries not related to the original project objectives, are these also discussed in this section? Are recommendations given that are based on the project conclusions? _____/10

OVERALL REPORT PROFESSIONAL APPEARANCE

Does the report have the correct format (3 to 5 pages maximum), correct spelling and grammar, proper format of tables, figures, equations, references (treated as footnotes), etc. ? _____/10

BONUSES (0 – 10 points)

Excellence in _____ _____/10

PENALTIES

Late _____

FINAL REPORT SCORE (0 – 100 points)
