Time Required for Report Writing

The most frequent complaint from students about laboratory courses is based on the perception that an excessive amount of time is needed for the preparation of laboratory reports, and that the return on this investment of time (in terms of the GPA) is not proportional. In fact, however, students who are able to report on their laboratory work in clear, organized reports receive higher grades than those who cannot. While report writing can indeed be time-intensive, the time is well spent because it provides students with the opportunity to develop or improve a skill that will be extremely valuable in their future careers.

A number of strategies can be deployed to lessen the time spent writing reports. Many frustrations and problems related to report writing can be minimized by proper planning. It is essential that students schedule their weekly activities to allow enough time to write laboratory reports. The time required to complete a report varies for each individual. As you become more proficient, the time required decreases. Additionally, using word processing and one standard format in all the laboratory courses will increase your writing efficiency.

You are on the path to becoming professionals whose successful careers will be based in part on how well you can communicate in writing. Start practicing now!
CSE 232
Systems Programming

Laboratory Report
Experiment #n

Student Name:                Date:
Student ID:

1. Introduction
State the objective(s) of the experiment concisely, in paragraph form. The laboratory manual or instruction sheet will help here. The section should inform the reader precisely why the experiment was undertaken.

2. Method
Describe the algorithm and how it is implemented in the program. In some cases this explanation can be given in the program itself. Give a typical listing of your program. The program should be as self-explanatory as possible. Discuss any important features of your program.

3. Verification of program
Confirm that your program is not incorrect by considering special cases and by giving at least one comparison to a hand calculation or known result.

4. Data and Analysis
This is a brief summary of your experimental results. Show the results of some typical runs. The final results of the data analysis are reported in this section, using figures, graphs, tables or other convenient forms, if necessary. This section must also include statements about the accuracy of the data, supported where necessary by an error analysis.

5. Discussion and Conclusion
This section is devoted to your interpretation of the outcome of the experiment. The information from the data analysis is examined and explained. You should describe, analyze and explain (not just restate) all your results. This section should answer the question “What do the data tell me?” Describe any logical projections from the outcome, for instance, the need to repeat the experiments or to measure certain variables differently. Assess the quality and accuracy of your procedure. Compare your results with expected behavior, if such a comparison is useful or necessary, and explain any unexpected behavior. Examine the outcome in the light of the stated objectives. This section should answer the question “So what?”