Laboratory Experiments:
Some Guidelines

1. **Read the Laboratory Instructions**
   The ability to perform laboratory experiments is dependent upon a careful reading and understanding of the procedures and requirements. The basic procedures will be demonstrated, but it is the student's responsibility to read and reread the specific laboratory instructions before asking for further assistance.

2. **Be Prepared for Laboratory Work**
   Bring a magnifier, calculator, ruler, pencil, and pen to each lab session.

3. **Keep Good Records**
   Carefully record the data that you generate in the lab. Label samples. Write your name on samples and lab handouts. Keep all materials in a safe place. Bring the sample printed sheet to each lab session.

4. **Data Rounding**
   The data that you generate in this laboratory should be rounded to the nearest whole number.

5. **Graph Plotting**
   A key aspect of laboratory work is the ability to plot neat and accurate graphs. Some of the graphical systems that you use will require you to draw straight lines between data points; other systems will require a "line of best fit." The requirements will be explained for each experiment.

6. **Interpretation of Results**
   Review your lecture notes and reread the appropriate sections of the textbook before writing your conclusion. If your results are not supported by the theory, the cause may be experimental error in either the measurement, computation, or graphical stages. Always check with the instructor if you discover that your results appear unusual.

7. **Writing Conclusions**
   Always cite your data to support specific points that you make in the conclusions. You must, however, be selective with your citations; citing too much data reveals a lack of discrimination and understanding. Carefully read and follow the instructions that pertain to the conclusions. Do not write long, rambling, general essays that do not address the specific requirements. Your writing should be concise and clear, and free from grammatical and spelling errors.

8. **Professional Presentation**
   Your written conclusions should be keyboarded. Tables of data may be hand printed as long as they are neat. Arrange the laboratory assignments in the sequence they were assigned. The Print Quality Analysis project should be at the end. Prepare a title page. Submit all materials in a lightweight 3-ring binder or in spiral-bound form. Do not seal or enclose any items in plastic. Overall, a professional appearance is important.