Lab Notebook Guidelines

1) Number the pages of your notebook (if they aren’t already numbered).
   - it’s a good idea to record your lab exercises only on the front of each page, leaving the back side of each page for notes or review questions

2) If your notebook lacks a page(s) for the Table of Contents, leave a blank page or two at the beginning of your notebook to build a Table of Contents as you go along.

3) Include the following for each exercise entered in your notebook:
   a) Date
      - the dates you perform and analyze each procedure should always be clear
      - if your exercise covers more than one lab session, always be sure to indicate the new date
   b) Title of experiment or exercise
      - e.g. “Gram Stain of Morphological Unknown”
      - indicate the corresponding exercise in your lab manual
   c) Purpose
      - i.e., what you are trying to find out or accomplish (one sentence)
        - e.g., “Determine Gram staining, morphology, arrangement of *E. coli*, *S. aureus*.”
        - do NOT state “To learn how to…”
      - think in terms of what the exercise you are doing will tell you about the organisms you are investigating
   d) Procedures
      - outline the procedures you performed (past tense), ideally as you do them
        - each procedure you do should be outlined in your notebook at least once, even if it was done exactly as indicated in the lab manual (it’s not OK to simply say “see lab manual exercise A”)
        - if you are repeating a procedure exactly as you have done previously just put “see page X” instead of rewriting it all
      - if experiment requires more than 1 day, indicate the procedures for each corresponding day
      - be sure to clearly indicate all organisms, reagents, amounts, temperatures, times, etc, anything important for the procedure
      - be sure to note any deviations or changes from the procedure, or any doubts or concerns you have about any aspect of the experiment
e) Results (or observations)
   - record the results or observations of your experiment in an appropriate form
     - e.g., draw a color sample of stained specimen, create a table or graph of your results
     - think of your results as a visual record of what you observed as well as any measurements you made
   - be sure to sufficiently label each result (e.g., species, magnification, etc)

f) Conclusions
   - briefly summarize what you conclude from your results (i.e., what they mean) as they pertain to the purpose of the exercise (usually can be a sentence or two)
   - this is appropriate only at the completion of an experiment or exercise, even if it took multiple days to complete
   - e.g., “Based on these results, \textit{S. aureus} is a Gram-positive staphylococcus”
   - if something went wrong and you can’t interpret your results, briefly address that and speculate as to why

Also, be sure to keep in mind the following:

- Someone else (or yourself at some point in the future) should be able to repeat your experiments using \textit{only} the information in your notebook.\textit{(think of this when you are unsure as to what to put in your notebook)}

- Be neat and organized, your entries should be legible and organized in a logical, consistent manner.

- Be \textit{brief} and streamline your entries as much as possible (abbreviations are OK!).

- Don’t erase any mistakes, simply cross them out, that information may turn out to be important at some point.

\textit{The quality of your notebook will impact your point totals, and hence your grade:}

- the overall quality of your notebook will count for 25 possible points
- the other 25 points will be earned provided you have a \textit{complete} notebook entry for each exercise you are required to enter in your notebook