SELF-EVALUATION CHECKLIST FOR BIOLOGY PAPERS
(Specific assigned papers may not contain all the sections included here.)

GENERAL
• Is the paper aimed at an audience of students having backgrounds and experiences similar to yours? Could such readers understand what you have written? Have you avoided trying to aim the paper at your instructors?
• Is the paper free of errors in spelling, punctuation, and grammar?

TITLE
• Does the title reflect the work presented in the paper? Does it include the specific details relevant to your study?

ABSTRACT
• Can the abstract stand by itself, telling the reader the question you investigated, the methods you used, your results, and your conclusions?
• Have you condensed the abstract to include only the most important points from each section of the paper? Is excessive detail avoided?

INTRODUCTION
• Have you provided some background information which places your work in a broader biological context?
• Is the introduction focused? Have you avoided tangential information which may have only limited relevance to your study?
• Have you clearly stated the specific problem that you investigated?
• Have you stated a hypothesis? Is the reasoning behind your hypothesis biologically valid? Is that reasoning clear to the reader?

MATERIALS AND METHODS
• Have you provided enough detail so that another student, using only your paper and the lab handout, could repeat your experiment?
• If you have referenced procedures described in detail elsewhere (i.e., lab handouts, other papers), have you cited those sources appropriately?

RESULTS
• Have you summarized the outcome of your experiment using descriptive statistics (e.g. mean, range, etc.) where appropriate? Have you avoided including raw data.
• Where appropriate, have you presented summarized results in figures and/or tables? Are figures and tables presented in the proper professional format?
• Have you included results in a table which could be presented more clearly in a figure (and vice-versa)? If you have used a figure, have you chosen the best kind of figure (i.e. scatter plot, bar graph, pie chart, etc.) to present your particular results? YOU MUST DECIDE WHAT YOU WANT THE READER TO SEE IN YOUR RESULTS--CHOOSE YOUR PRESENTATION APPROPRIATELY!
• Have you included narrative text? Are all figures and/or tables appropriately referenced in the text?
• Does the text point out important features or trends in the data which you want your readers to notice? Have you avoided simply repeating data that is already presented elsewhere in figures and/or tables?
• Have you avoided interpretations, judgments, or conclusions which belong in other sections of the paper?

DISCUSSION
• Have you explained how your results support your conclusions? Is the connection between the results and the conclusions clear?
• Have you related your results back to the broader biological concepts presented in the introduction?
• Have you provided reasonable explanations for atypical or unexpected results?

CONCLUSIONS
• Have you answered the problem you presented in the introduction?
• Are your conclusions supported by the results of your experiment?
• Have you avoided explaining your conclusions, reserving such explanations for the discussion?

ACKNOWLEDGMENTS
• Have you acknowledged the help of others (e.g., lab partners), giving their names and describing their exact contributions?

LITERATURE CITED
• Are these complete and in a standard format?