

# Appendix A

## BIO220 Lab Report Checklist

(Adapted from Pechenik, 1997<sup>1</sup>; pp. 52 - 140)

In the space below the secondary author should make comments concerning whether the lab report they received successfully did each relevant item in this list. This should include any brief comments that may be of help to the primary author. The primary author then reviews each comment and makes a check by those they have addressed.

Primary author	Comments from Secondary author
<b>Title</b>	
_____ Title gives a specific indication of what the study is about	
<b>Abstract</b>	
_____ Background is stated in one or two sentences	
_____ Clear statement of specific question addressed	
_____ Methods summarized in no more than three or four sentences	
_____ Major findings reported in no more than two or three sentences	
_____ Concluding sentence relates to statement of specific question addressed	
_____ Abstract is a single paragraph; if not can it be rewritten as one paragraph?	
<b>Introduction</b>	
_____ Clear statement of specific question or issue addressed	
_____ Logical argument provided as to why the question or issue was addressed	
_____ Every sentence leads to the statement of what was done in this study	
_____ All statements of fact or opinion are supported with a reference or example	
<b>Materials and Methods</b>	
_____ Methods are presented in the past tense	
_____ Design of study or experiment is clear and complete	
_____ Rationale for each step is self-evident or clearly indicated	
_____ Each factor mentioned is likely to have influenced the outcome of this study every factor likely to have influenced to outcome is mentioned	
_____ Includes brief description of how data were analyzed (calculations made, statistical tests used)	

## **Results**

- \_\_\_\_\_ Results are presented in the past tense
- \_\_\_\_\_ Results are presented in active voice whenever possible
- \_\_\_\_\_ All general statements are supported with reference to data
- \_\_\_\_\_ Major results are presented in words, but their implications are not discussed
- \_\_\_\_\_ The same data are not presented in both tabular and graphical form within the same report
- \_\_\_\_\_ Every table or graph makes an important and unique contribution to the report
- \_\_\_\_\_ Each figure or table has an informative caption or legend
- \_\_\_\_\_ Each figure or table is self-sufficient
- \_\_\_\_\_ The meaning of error bars on figures is clearly indicated in the caption
- \_\_\_\_\_ Numbers of individuals/numbers of replicates are clearly indicated in the graph, table, caption, or legend

## **Discussion**

- \_\_\_\_\_ Data are clearly related to the expectations raised in the Introduction
- \_\_\_\_\_ Facts are carefully distinguished from speculation
- \_\_\_\_\_ Unusual or unexpected findings are discussed logically, based on biology rather than apology
- \_\_\_\_\_ All statements of fact or opinion are supported with a reference to the literature, data, or an example
- \_\_\_\_\_ Discussion suggests further studies that should be conducted, additional questions that should be posed, or any modifications

## **Literature Cited**

- \_\_\_\_\_ Citations are provided for every reference cited in the report and are in the correct format
- \_\_\_\_\_ Section includes no references that are not cited in the report
- \_\_\_\_\_ Each citation includes names of all authors, title of paper, year of publication, volume number, and page numbers

## **Acknowledgements**

- \_\_\_\_\_ People are mentioned by first and last names, and their specific contributions are noted

## **General**

- \_\_\_\_\_ Text of report is double-spaced (or at least easy to read)
- \_\_\_\_\_ First page shows name of author, name of lab section or instructor, and date submitted
- \_\_\_\_\_ All pages are numbered