**Lab Report Rubric (note: continues on 2nd page)**

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| **Criteria** | **Specific objectives** | **Level of achievement** | | |
| ***Scientific approach*** | Excellent (2) | Needs work (1) | Absent (0) |
| *(1) Title of lab report* | 1. Title clearly conveys a summary of the lab report findings. |  |  |  |
| (2) *Abstract:* The abstract helps the reader to understand the larger document by acting as a summary or “pre-reading” of the key points. The abstract describes the question your experiment is designed to address and its scientific merit. The abstract is concise yet complete: ≤ 300 word paragraph summary. 1-2 well-developed sentences articulate each objective listed. | 1. Particular question/objective and (alternative) hypothesis addressed in experiment are stated. Null hypothesis is not stated. 2. Purpose or motivation for experiment is linked to a biological explanation and “big picture.” 3. Experimental approach taken to address the question is briefly summarized. 4. Major findings and interpretations are described using actual values 5. Judgment about the hypothesis is linked to findings (*p* value) 6. Why this matters & specific significant implications of this experiment are described. 7. The abstract is concise (≤300 words) with all relevant details. |  |  |  |
| (3) *Methods:* How will you address your question? What data will you collect and how? How will you analyze and interpret this data? | 1. Begins with 1-2 sentences describing the overall experimental design, including the purpose of the experiment. 2. Specific data collection is described with the appropriate amount of detail so the experiment could be replicated, with pertinent details described. 3. Analysis and interpretation procedures, e.g., statistical test including alpha value, are described and are appropriate for the data & question. |  |  |  |
| (4) *Results:* What did you find? | 1. Begins with 1-2 sentences describing the overall findings of the lab. 2. Findings from the data gathering and analysis are described in adequate detail including values of quantitative measurements, stating *p*-value if a stats test was used, but without making explanations or conclusions about the data. |  |  |  |
| (5) *Discussion:* What do your findings mean? What did you expect to find and what evidence would be needed to support your hypothesis? Interpret your results with regard to your hypothesis. | 1. Begins with a statement relating the overall results to the hypothesis. 2. Findings are described and interpreted. Findings may be compared to others' findings. This is 1-2 paragraphs in length. 3. Specific analyzed data (i.e., results from stats if used) is used as evidence to decide whether the hypothesis is supported. Scientific concepts are used accurately and convincingly to explain whether the data supported the hypothesis. 4. Other issues are addressed as appropriate, e.g., problems that occurred; sources of uncertainty in the lab procedure or findings; improvements or extensions of the experiment. 5. Why this matters & significant implications of this experiment are described. |  |  |  |
| (6) *Figures & tables:* Graphs; drawings, diagrams, tables. | 1. Visuals are appropriate for the type of data. 2. Correct format is used (titles, graph components). Statistical significance is indicated. 3. Figure legends accurately and succinctly describe the methods used to collect the data and the data presented 4. Visuals are discussed and clearly referenced in text of Results & Discussion (not in the abstract) and displayed at the end. |  |  |  |
| ***Composition*** |  |  |  |  |
| (7) *Writing:* Grammar; spelling; clarity and conciseness of sentences; flow of ideas; use of technical terminology. | 1. There are no grammatical or spelling errors. 2. Sentences are clear and to the point. 3. Flow of ideas is cohesive and logical. 4. Use of technical terminology is appropriate and words are abbreviated or italicized as appropriate (e.g., species names) |  |  |  |
| *(8) Format of report*: Organization; page formatting; font style; Honor Agreement | 1. Report is written entirely in sentences organized as paragraphs (not bulleted list). 2. Report is organized into sections (i.e., abstract, methods, etc.) with headings that are bold. 3. Page format: Times New Roman 12 pt font (even for headings); 1 inch margins; double-spaced; pages are numbered and stapled as needed. 4. Georgia Tech Honor Agreement is included at end of report with signature. | 0 or 1 point for present or absent | | |

**Other important criteria for your lab report:**

1. **Grade**= (Scientific approach points *x* 2) + (Composition points)= 100 points possible to earn for complete lab report
2. Do not include a **separate title page**. We are a green campus. Please save paper and money.
3. Your lab report should include your **lab section number** and your **TAs’ names**.
4. You must include a **printed copy of the rubric** with your lab report. If you fail to do so, 1 point will be deducted from your lab report grade.