These are the areas that both the Graduate TA’s noticed about most papers.

Suggestions for the next paper:

1. Formal and scientific language – Use words like “denatured” instead of “died” or “optimal conditions” instead of “environment where they are happiest”.
2. Use words in the right context. Big words are nice if they are used properly.
3. Do not use first person “I and me”, second person “you or your” and singular third person “he and she”. You can use “we, us and our”.
4. Do not use contractions: don’t, won’t, etc.... write it out: do not, will not, etc.
5. Beware of spelling errors.
6. With the words that you use, try not to use them consecutively. For example, Table 1 shows... Table 2 shows.... Table 3 shows.........
7. Beware of strong words like fact or proved. Use passive words like supports or suggest or indicate. There are no facts in science, just evidence.
8. Really focus your ideas to make your paper as clear and concise as possible. No redundancies.
9. All Figures and Tables should include a clear, thorough, concise legend that provides all the information the reader needs to read and understand the figure or table. The reader should not have to refer to the text of the paper to read your tables or figures. Be sure to explain what your variables are, what the table or figure represents and why it is important to your study. Table legends are located on the top and figure legends below.

Table 1: A description of Biology 205 lab TA’s, meeting times, and reasons that each lab is fun (this is obviously a light-hearted joke-your tables will have more substance). (Table made by Leslie Chao, Winter 2003)

<table>
<thead>
<tr>
<th>T.A.</th>
<th>Lab Times</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amy</td>
<td>9 AM – 12 PM</td>
<td>Amy is awesome</td>
</tr>
<tr>
<td>Leslie</td>
<td>1 PM – 4 PM</td>
<td>Leslie is bitter sweet</td>
</tr>
</tbody>
</table>

Figure 1: a picture of Dr. Morgan’s favorite tree. The leaves and trunk resemble a spruce tree.

10. Bulk of the paper:
   a. Abstract – A very short explanation of what you did and the take home message (what did you conclude?). Be sure to include information from each section of your paper. This is the section that someone will read to decide if they want to read the entire paper, so you want to make sure that
you include enough relevant information without overwhelming them with
detail.
b. Introduction – Background and what you are going to do (do not include
methods). This should be a logical progression to your hypothesis (or the
objective of the experiment). By the end of the intro, the reader should
have a clear sense of the question(s) you are addressing and the reasoning
behind choosing those questions.
c. Methods – A list experimental steps. Do not explain why you are doing
the tasks. This is just like a shopping and chore list. However, all steps
should be written out in narrative form, not listed out.
d. Results – Just report your data and point out major trends and patterns in
the data without talking too much about them. For example, if your data
shows an overall decrease in activity as temperature increases, you can
point that out. However, you should not try to suggest a mechanism for
that data pattern in your results section. Here is where you put in your
stand-alone tables and figures.
e. Discussion – This is where you interpret the patterns and trends you see in
the data, suggest mechanisms for these trends, analyze experimental error
and how it may have affected your results, and suggest future studies to
address remaining questions.

*** If you need writing assistance, you can contact the writing center at X 3219 or
drop by WL 389. If you need help with general writing and grammar, make an
appointment with any writing tutor—they are all knowledgeable. If you want help
specifically with writing in biology and the conventions we use, make an
appointment with Megan. Also feel free to see Amy or Leslie for help. ***