Your final 199/199A-B paper should be written as if it were a scientific paper that you are submitting to a journal for publication. Therefore, we expect a careful and polished product for both your draft and final reports. ALWAYS carefully proofread your paper before turning it in and make sure you have checked the following things in your paper:

**IMPORTANT:** It is a form of academic dishonesty to turn in material written by someone else in the lab for some other purpose (a section of a grant proposal, or an article in preparation) and given to you for use as a guide in preparing your research proposal, or your paper. Both your proposal and your paper should be your own write-up, reflecting your understanding in your own words. If you do utilize such materials, make sure to cite them appropriately in your paper.

**FORMAT:**

1. Double space the entire document, including the references and the figure legends.
2. Do not leave widows (paragraphs or headings beginning on the last line of a page) or orphans (a page beginning with the last line of a paragraph).
3. Make your headings clear (underlined, capitalized or made bold, etc.) and put extra spaces between major sections.

**GENERAL CONTENT:**

4. The paper must contain: TITLE PAGE, ABSTRACT, INTRODUCTION, MATERIALS AND METHODS, RESULTS, DISCUSSIONS, and LITERATURE CITED (REFERENCES).
5. Make your paper understandable to a scientifically literate person, not only to experts in the particular area in which you are working. MAKE YOUR PAPER GENERAL, NOT OVERLY SPECIALIZED. (This approach particularly applies to the introduction and discussion.)
6. Carefully proofread your paper for typos, poor English, omissions from this checklist, etc. Utilize spell check and grammar check.

**GENERAL PRACTICES:**

7. Do not use future tense, especially in the introduction, materials and methods, and results.
8. Where possible use the past tense when referring to your work (after all, it is what you did) and usually the work of others. Use active verbs (i.e., I prepared recombinants, etc.).
9. Use standard abbreviations whenever possible; these are not followed by periods (e.g., min, hr, sec, gm, um, ul, etc.).
10. Do not use jargon (remember your audience); limit or carefully define any words not commonly used.
11. Give the definition of acronyms at the time of first usage.
12. Do not start sentences with a number; write the number out if you do so.
BY SECTIONS:

TITLE:

___13. Title should be free of jargon and not overly specialized (remember you are writing for a highly-educated, but general audience)

___14. **Title Page** should include the following information:
   A. The title of your paper
   B. Your name and undergraduate ID number.
   C. The course number (198A, 198B, or 198C) and the quarter.
   D. Your research sponsor’s full name, telephone extension and e-mail address
   E. *Except* for the title page, all pages should be numbered

ABSTRACT:

___15. The Abstract should be a short synopsis of your project, your methods, your results, and your conclusions.

INTRODUCTION:

___16. Introduction should include an overview of the problem and the point of the study, framed by a consideration of the appropriate literature, and a clear statement of your hypothesis and objectives.

MATERIALS AND METHODS:

___17. The Materials and Methods section should be contain enough information about how you conducted your experiments, so that someone else could replicate them exactly.

___18. Decimals should be preceded by a number, including a 0 (.35 = incorrect; 0.35 = correct).

RESULTS:

___19. The Results section should only contain what you found (i.e. the data) and be free of interpretation.

___20. The word "data" is a plural word; use it properly (the singular form is “datum”)

DISCUSSION:

___21. The Discussion should include your interpretation of your data, an integration of your findings with data and hypotheses found in the literature, and your conclusions. This is a very important section.
REFERENCES:

___22. Use the format found in the journal *Science* to cite literature in the text of your paper, as well as to format your reference list.

___23. List only (and all) references cited in the text of your paper in your reference list.

___24. Indicate each journal with the appropriate abbreviation.

FIGURES AND TABLES:

___25. Put all tables and figures at the end of the manuscript after the REFERENCES section.

___26. Put each figure and/or table on a separate page.

___27. Each figure and/or table must have a self-sufficient legend and the axes of graphs in figures should be clearly labeled.

___28. Tables should not be redundant with the figures. If they are redundant, figures are preferable in most situations, so omit the table.

THE DRAFT AND FINAL REPORT:

___29. For the initial draft of the 199 or 199A-B report we expect to see a complete title, introduction, materials and methods, and references AND something in the results and discussion sections; the more complete the better. **If you are writing a 199A draft, however, it is reasonable that you might not yet have results or discussion...having no substantial information in these sections will not impact your grade.**

___30. The initial draft is due to the MCDB Office no later than 3pm on the Wednesday of 8th week. **Should that day fall on a holiday, the paper will be due by 5pm on the last working day of the week before the Wednesday holiday, not the Monday after the holiday.** Make sure to check with your sponsor in advance as to when you should turn in your draft to him/her.

___31. Early in the quarter, you and your advisor must mutually arrange a date for you to turn in a copy of your final report to her/him, bearing in mind that he/she may have meetings out of town around finals time that you wouldn’t be aware of. **Do not assume that you can turn in the final copy to your sponsor on the MCDB deadline date. The MCDB 199 or 199ABC or D final copy is due no later than 5pm on the Monday after finals week.**

___32. Along with the final report, you also must return both copies of the draft report with all original comments.

___33. Please do not put your papers into folders or binders before turning them in.

___34. **All drafts and final papers are to be deposited in the drop slot in locker L 258, directly across from 2128LS.**

GRADE :

___35. Your advisor will be contacted and advised as to how to submit your grade.

Failure to comply with items stated on this checklist may result in a lowering of your final grade.

Thanks to Dr. James Morin of the Department of EEB and to Dr. Judith Lengyel of the Department of Molecular, Cell and Developmental Biology.