Expectations for Modeling Project Writeup

(1) Format Specifications
    (a) 15–20 pages long (not including cover page or appendices).
    (b) 1" margins
    (c) Font size 11–12
    (d) Spacing 1.5 times
(2) Cover Page
    (a) Project Title
    (b) Researchers
    (c) Date
    (d) Abstract
        (i) Consists of 100–300 words
        (ii) Concise description of problem statement, method, and main findings of project.
        (iii) (Write it after the paper is done.)
(3) "Introduction" or "Background"
    (a) This should provide the reader with the necessary background information about why your project is an interesting and worthwhile project, and where the project fits into real life.
    (b) Include any relevant definitions from background knowledge.
    (c) Explicitly state the problem statement.
(4) Assumptions and Mathematical Model
    (a) Discuss which variables you found to be the most important and which you are leaving out of the model.
    (b) Explicitly state any assumptions that you are making in your research.
    (c) Explicitly explain how you are using mathematics to explain the real-world situation.
    (d) How does the model as presented address the problem from the Problem Statement?
    (e) What is involved in solving the problem using the model?
        (i) If you use a method taught in class (*such as function fitting, linear regression, linear optimization, transition matrices, etc.*), you simply need to explain **that you applied** this method.
        (ii) *If you use a method other than those taught in class*, describe this method and explain how one would analyze such a mathematical model.
(5) Results
    (a) You will use the mathematics we have learned in class to discuss what the math says and what conclusions you can draw in terms of the real-life problem.
    (b) If applicable, include raw data, especially excerpts that are useful in conveying your point. (Include entire datasets only in the appendix.)
    (c) Feel free to include graphics to illustrate your results.
    (d) Interpretation: What does it all mean?
(6) Discussion
    (a) Strengths and Weaknesses
        (i) You need to elaborate on your simplifying assumptions and explain what is good and what is bad about your model.
        (ii) How could this model be improved?
    (b) How well does your model do with respect to the aspects presented in Chapter 3 of the text?
    (c) Which mathematical conclusions don't make sense compared to the real-life situation?
    (d) There should be some discussion about errors.
    (e) Future Research
        (i) What would you have included if you had had more time?
        (ii) What should future researchers investigate?

(f) Conclusion
  (i) Summarize the whole project once again (similar to abstract)
(7) Appendices
  (a) If appropriate, include copies of surveys, computer programs used, and/or complete data sets.
  (b) Should not include any information crucial to discussion in main part of project.
(8) "References" or "Bibliography"
  (a) Include any sources you used in the course of your project, including books, web sources, discussions with experts, etc.
  (b) All references mentioned in the project should be properly cited here.
    (i) How to mention references in the text of the project:
      `http://writing.wisc.edu/Handbook/QPA_quoting.html`
    (ii) How to properly cite references in bibliography:
      `http://writing.wisc.edu/Handbook/DocMLAWorksCited.html`