# Genetic Algorithms Instructions for writing the paper

1. Format of the paper
   1. 2-column 10pt font
   2. 1 inch margins
      1. Normal margins between the columns (1/2 inch)
   3. At least 4 pages
      1. This will contain a lot more words than a standard 12point, one column, double spaced paper
      2. You may need more than this
         1. Include as many pages as required to fit in all of the sections and experiments
   4. Page numbers on the bottom center
2. Audience
   1. All papers are written to a specific audience
   2. In this class you may assume that your audience is another class member.
   3. However, you should include little bit of further explanation   
      (so that I know you understand what is going on).
3. Sections of the paper   
   Each of the sections below should be clearly labeled
   1. Title and author(s)
      1. Should be centered at the top of the first page
      2. Should not be in 2 column format
   2. Abstract
      1. A short description of the main point of the paper
      2. This goes first but should be written last
      3. Should be in a different font than the rest of the paper.
      4. This will be only one paragraph (sometimes long)
   3. Introduction
      1. A short 2-3 paragraph introduction introducing the main idea of the paper
         1. You could refer to authors here
      2. Also include a paragraph listing the main sections for the rest of the  
         paper.
   4. Algorithm
      1. A short description of the main algorithm of the paper
         1. You could refer to authors here
      2. 1-3 paragraphs
   5. Experiments
      1. This is the longest section of the paper
         1. Several paragraphs
      2. Should contain a general introduction for all of the experiments
         1. List the main experiments that will be run
         2. List the default parameters
            1. All experiments should use these parameters
            2. Except that you vary **only** **one** of these parameters for each experiment
      3. 1-3 paragraphs for each experiment run
         1. Each experiment should have a sub-heading so it’s clear what the main variable is
         2. List the purpose of the experiment
         3. List the variable that will be varied
         4. Reference the table or graph that shows the results
         5. Discuss the results of the experiment
         6. Try to explain why
            1. I’m not looking for perfection here; just show me that you’ve tried to think about this.
   6. Conclusion and Future work
      1. Here you give a general explanation of all the experiments run
         1. Don’t re-explain what you did in the Experiments section
         2. Discuss general conclusions
      2. Future Work
         1. Discuss anything you think would be interesting to explore that you didn’t have time for
      3. Talk about any other aspects of the project you wish to discuss
   7. References
      1. You should include at least one reference that discusses genetic algorithms
         1. Even if it’s just the slides on the download area
      2. If you used any other references to help you with your understanding, include these as well.
      3. References should be mentioned somewhere in the paper
      4. References should be numbered and referred to by listing the number in brackets.
         1. Ex: Peterson and Lowell [2] discuss some interesting ideas.
         2. Then list the reference at the end of the paper. With the bracket in front