Physics etc., Queen's University

PHYS/ENPH 344—Quantum Mechanics, Part 1

Final Project: Problem Solving—Planning

As part of your work on your final project, you will need to solve a problem. Various people breakdown solving problems in various ways, but for the purposes of this course, we are going to break things down into four steps: *Exploration*, *Planning*, *Execution*, and *Reflection*.

In the discussion sessions you will have with classmates who are working on the same project you will get a chance to bounce ideas off of other people. I encourage you to use the following questions to help you plan your strategy.

A good reference on this stage of the problem solving process is the book "How to Solve It" by G. Polya. There are a lot of good ideas in this book, although it is organized around mathematical problems, and some of the things it says about problems in other disciplines are untrue. Also, the language is outdated, and in places it is sexist.

- What are some approaches I might use to solve the problem?

- What would be the steps I would have to take to carry out the potentila approaches?

- What would I expect to be the most challenging step in that plan?

- If my plan worked, what would it look like? What would it look like if it didn't? How could we tell the difference?