For the term project, you will

- describe,
- formulate, and
- solve

either

- a system of equations problem, or
- an optimization problem.

You may work in teams of up to three students.

The best situation is if you have a problem of your own interest, perhaps from research you may be doing, or perhaps from another course, to develop and solve. If you don’t have a problem of interest to you that you can specify, utilize either situations from problems in the various exercises from the course text or solve one of the case studies described in the course text.

Your report should consist of three parts:

**Description:** Describe in words the problem that you are going to formulate and solve. The description does not have to be extremely detailed, but should indicate the background, the issues, and the goal of applying optimization to the problem. As an example of the level of detail expected, look at the description of the problem in text problem 2.8.

**Formulation:** Formulate the problem that you are going to solve. That is, put the problem into the context of the standard problem types addressed during the course of the term. Each aspect of the description of the problem should be represented in the formulation.

**Solution:** Specification and solution of a “small” instance of the problem using MATLAB or using an optimization tool of your choice. Your report should detail the solution and also include a discussion of solving the problem instance.