# 550.400: Mathematical Modeling and Consulting

## Lecture Notes

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# Outline

# Example: Insurance Redlining

Frequently Recurring Elements of doing a Project in Industry:

1. Work Statement

2. Midterm Presentation

3. Progress Report

4. Final Presentation

5. Final Report

# Programmings in this class

1. LaTeX:
   - 1.1 `moderncv`
   - 1.2 `beamer`
   - 1.3 `article`
   - 1.4 `tikz`
2. R:
   - 2.1 `tikzDevice`
   - 2.2 `lm`
3. Git
   - 3.1 `git init .`

# Seven Basic Principles

1. Set the context
2. Choose effective examples and analogies
3. Choose vocabulary to suit your readers
4. Decide whether to present #s in text, tables, or figures
5. Report and interpret #s in the text
6. Specify the direction *and* size of an association between variables
7. For many #s, summarize overall pattern

# Creating Effective Tables

# Example: Cost of Packaging

# Example: The Nuclear Mission Arms Race

# Example: Maintaining Inventory