Chapter Objectives: Chapter objectives: Understand much of the basic terminology of statistical work. See how and why randomness is used in the design of a survey or experiment.

- Assignment already made:

Homework Problems: None.
Reading: Pages 164-175.
Reading Homework: Chapter 5, #2.

Day 1:
1. Hand out worksheet M5x (Focus Questions), and have the students start working on it during the video (see below). Tell them to hang on to it and that you’ll go over it in a few class periods as a summary to Chapter 5.
2. The video for this chapter (tape #7, Collecting Data) is a pretty good introduction to the statistics unit. Show all of it today.
3. Make sure the students understand the difference between the population and the sample in an experiment.
4. Do problem 42 as a group to give students an idea of what randomness means.
5. Discuss the problem of unintended bias in a sample, using problems 4-7 to guide discussion.
6. Assignment:
   Homework Problems: Chapter 5, #1, 3, 9 and continue working on Worksheet M5x.
   Reading: Pages 175-182.
   Reading Homework: Chapter 5, #16.

Day 2:
1. Go over homework. (The problems from the book were all odd-numbered, so you might just ask if there are any questions rather than actually have students put solutions on the board.)
2. Discuss sampling variability, using problem 13. If you want to avoid using the table of random numbers, try using another method of generating random numbers. For example, some students may have a calculator with a random number generator. Or you might want to bring one and do the problem as a class with the overhead projector. Or maybe just bring lots of dice or decks of cards.
3. Discuss confounding, using some of problems 19-24 as discussion.
4. Emphasize the difference between bias, sampling variability, and confounding.
5. Assignment:
   Homework Problems: Chapter 5, #19-24 (except the ones you already used in class) and continue working on Worksheet M5x.
   Reading: Pages 182-189
   Reading Homework: Answer each of the following questions in your own words:
   (a) What is a “double-blind experiment”?
   (b) Identify at least one ethical issue involved in the Physicians’ Health Study.

Day 3:
1. Go over homework problems.
2. Have students get into groups of 3 or so and spend 5 minutes or so comparing answers to the Focus Questions. Then go through the answers as a class.
3. Have students work in groups of 3 designing a two-factor experiment using either problem 50 or 52 in the book. (Problem 52 is a bit more complex on the surface, but has fewer complications due to confounding factors.)
4. Assignment:
   Homework Problems: Chapter 5, #30, 32, 51.
   Reading: Pages 204-221. (This is Chapter 6!) 
   Reading Homework: Chapter 6, #2.