STAT 1632. INTERMEDIATE MATHEMATICAL STATISTICS

Spring 2015

Department of Statistics, University of Pittsburgh

Assignment 3   Due at the start of class on Thursday, February 5

Reading assignment

January 29: **Sections 7.9, 8.1-8.4** of your textbook *Probability and Statistics* (PS), 4th edition by DeGroot and Schervish

Written assignment

1. PS, 4th ed., Section 7.9, Exercises 4+5 (treat as one problem), page 460.

   Note: The value c^* for Exercise 5 is given at the back of the book, but you need to prove that this value provides uniformly smallest M.S.E. among all estimators of the form cY_n.

2. PS, 4th ed., Section 7.9, Exercises 8+14 (treat as one problem), page 461.

3. PS, 4th ed., Section 8.2, Exercise 4, page 472.

4. PS, 4th ed., Section 8.2, Exercise 6, page 472.

5. PS, 4th ed., Section 8.3, Exercise 4, page 479.

6. PS, 4th ed., Section 8.3, Exercise 6, page 479.

7. PS, 4th ed., Section 8.4, Exercise 2, page 484.

8. PS, 4th ed., Section 8.4, Exercise 4, page 484.

9. PS, 4th ed., Section 8.9, Exercise 8, page 529.

   The following is an extra credit question for undergraduate students. Graduate students are required to do the problem.

10. PS, 4th ed., Section 8.2, Exercise 8, page 472.

<u>First Midterm</u>

The first midterm will be held on Tuesday, Feb 10. It will be closed book and closed notes. You can bring notes written on both sides of one sheet of ordinary notebook paper. You also need a calculator. The test will cover Chapter 7 and sections 8.1-8.4 of Chapter 8.

<u>Practice problems</u>

1. PS, 4th ed., Section 7.9, Exercises 1, 3, 7, 11, 13, 15.

2. PS, 4th ed., Section 7.10, Exercises 5, 7(a), 11, 15, 17, 19.

3. PS, 4th ed., Section 8.2, all odd-numbered exercises and Exercise 10.

4. PS, 4th ed., Section 8.3, all odd-numbered exercises.

5. PS, 4th ed., Section 8.4, Exercises 1, 3, 5.

6. PS, 4th ed., Section 8.9, Exercises 3, 5, 7, 9.