# HW #3 Requirements Specification & Data Modeling

Com S/SE 409 & Com S 509, Fall, 2017

*Due at beginning of class Tues,* ***Oct. 10***

Textbook reading assignment: Chaps. 10 and 11 in Robertson & Robertson

**Team assignment:** one assignment is turned in for this part with the names of all the team members who participated on it. Remember that all of you must work together on all the problems. If you prefer, you may instead do the entire assignment individually. Re-read the Homework Policy at the top of HW#1.

1. *Specifying Functional Requirements.* 30 pts. Read Chap. 10. Specify the Functional Requirements for your product in EARS using the steps in your Product Use Case scenarios as a guide. Accuracy and Completeness with respect to your clients' needs--"Getting Requirements Right" as the book's subtitle puts it—is the goal.

2. *Specifying Non-Functional Requirements*. 20 pts. Read Chap. 11, and 435-457. Specify the Non-Functional Requirements for your product (not in EARS), using the steps in your Product Use Case scenarios and the NFR checklist in the textbook as a guide. Note that you won't have NFRs for most of the NFR types, i.e., don't make up NFRs your product doesn't need.

3. *Modeling the Stored Data***.** Read pp. 379-381; 482-483. Then create a class diagram model for your product. Note that these are high level at this stage. (10 pts.)

## 509 students only, also do:

Reading assignment: van Lamsweerde, parts of Chap. 2 (see below).

Each grad student turns in an answer to this part separately. Discussion is encouraged, but each student must write up his/her solution independently without consulting anyone else's solutions.

4. *Probing for non-normal scenarios.* Read van Lamsweerde, Section 2.2.5. Then, on p. 85, do Exercise #3, beginning, "Extend the normal scenario . . . ."
[Describe 5 abnormal scenarios not discussed in 2.2.5.]

5. *Knowledge reuse in RE*. Read van Lamsweerde, Sect. 2.2.7. Then, on pp. 85-86, do Exercise #5, beginning, "Analyze similarities and differences . . . "