# HW #1 Requirements Gathering & Capture

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

*Due at beginning of class Thursday, Sept. 7; turn in on Blackboard as a pdf.*

Textbook reading assignment: Chapters 1-3, Robertson & Robertson, 3rd ed.

## Homework Policy

**Teams:** The solutions are to be developed and written up together as a team, with participation by ***all*** members of the team on ***all*** questions. If an individual is unable to meet and work jointly each time with the team, then s/he should contact the instructor to arrange an alternative. The goal is for each of you to learn the material sufficiently well to use it productively, to think innovatively, and to develop confidence in your problem-solving abilities. Please talk to me individually about this if you have any questions.

The teams working on each project should function ***separately***, except as specifically credited in the solution to the problem that is turned in, describing what the contribution was. The Dean of Students Office offers several good resources to build understanding of how to avoid plagiarism, such as Purdue's "Safe Practices" site.

**Late policy:** 10% penalty per school day for late homework. For example, if an assignment due Thursday at 9:30 is turned in Thursday during or after class, it is one day late; if received Friday after 9:30 it is two days late; if received Monday after 9:30 it is three days late, etc. Please contact me in case of emergencies.

**HW#1 is a Team assignment:** one set of answers can be turned in with the names of all the team members who participated on it. If you prefer, you may instead do the assignment individually. If a team member does not participate fully, their name should not be on the team homework paper that is turned in, but instead they should turn in an individual paper.

Your team project will be the Software Requirements Specification for a new product or application that your team proposes to develop that will use Augmented Reality for teaching or training, for example of K-12 or vocational technology students.

1. *Project Description*. Briefly and clearly describe (a paragraph) the software-intensive product or application that your team proposes to develop. Identify its novelty and how it will use Augmented Reality for teaching or training.

2. *Project Feasibility*. In order to evaluate & refine your initial idea, and to help your team ensure that your product is new and likely to be used, investigate what's out there (both on the market and open source). Answer the following:

(a) What similar products already exist? Describe the similar products and how your product will be better.

(b) Is your product currently feasible? Describe why you think it can be built and practically used by the intended clients with existing and affordable technologies.

3. Understanding *the context*. Read pp. 38-43, pp. 70-72, and pp. 420-422. Produce and turn in a context diagram for your project, using an editing or drawing tool of your choice. There is an example of a context diagram on p. 71.

**509 students only, also do:**

Reading assignment: van Lamsweerde, Chap. 1: pp. 1-17, 30-56

Additional homework problems from van Lamsweerde:

4. van Lamsweerde, p. 58: 1st Exercise, beginning "Consider the library world . . ."
[The library world is described on pp. 5-7.]

5. van Lamsweerde, p. 60, 13th Exercise, beginning "Find or invent . . ."
[Give only 5 examples.]

©Robyn Lutz 2017