

ESD.33 Systems Engineering

HW 1 -- Learning

Due Date: 10 June, 8:30AM EST

Deliverable: Individual written assignment (about three pages).

Time allotment: You should expect to spend 3 hours on this homework.

Grading: This assignment represents 5% of your final course grade.

Objectives:

This assignment is intended to initiate some thought about the purpose of this course and the conditions we will have to create to reach our objectives.

Assignment:

1. Make a list of your personal objectives for the course. I suggest that you list just 5 to 7 important, high-level objectives. I also suggest you try to use language that makes it clear exactly what you will be able to do (or do better) because of your hard work in this course. Some suggested verbs are included in the Table below (from Bloom's taxonomy of educational objectives).

| Educational Objective | Associated Action Verbs |
|------------------------------|--------------------------------|
| 6. Evaluation | Judge, critique, justify |
| 5. Synthesis | Design, invent, propose |
| 4. Analysis | Predict, model, derive |
| 3. Application | Calculate, solve |
| 2. Comprehension | Explain, paraphrase |
| 1. Knowledge | List, recite |

2. Read the following documents. Select one key point from each document and amplify or challenge it using your personal experience:

- "Teaching Smart People How to Learn" by Chris Argyris and
- Notes from "The Reflective Practitioner" by Donald Schön.

3. Write briefly (~1 page) about the conditions that we can create in this course that will be conducive to meeting your objectives. You may want to use a matrix to present relationships among conditions and objectives.