CS 6361.081 — Requirements Engineering
Summer 2004

Instructor: Lawrence Chung
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Office Hours: M 03:00-05:30pm, or by appointment

Lectures: Time:MW 12:00-02:45pm, Room: ECSS 2.410

TA TBA

Lawrence Chung, CS, ECS, UTD

References: Requirements Engineering: Processes and Techniques,
G. Kortonya and I. Sommerville, John Wiley Sons
Software Requirements: Objects, Functions, & States
Alan M. Davis, Prentice Hall: Englewood Cliffs
System Requirements Engineering
P. Loucopoulos and V. Karakostas, McGraw-Hill
Non-Functional Requirements in Software Engineering,
System and Software Requirements Engineering: Tutorial
R. H. Thayer and M. Dortman (Editors), IEEE Computer Society Press
Requirements Engineering — A Good Practice Guide
I. Sommerville and P. Sawyer, Wiley
Requirements Engineering: Frameworks for Understanding
R. Wieringa, Wiley, 1997
Requirements Engineering, L. Macaulay, Springer Verlag, 1996
User-Centered Requirements Analysis, C. F. Martin, Prentice-Hall, 1994
Information System Requirements: Determination and Analysis
D. Flynn, McGraw-Hill, 1992
Object-Oriented Analysis and Design, with Applications
G. Booch, Benjamin-Cummings, 1994
J. Rumbaugh, I. Jacobson and G. Booch, Addison-Wesley, 1999

Grading Scheme: no late
Projects (June 2(W), June 21(M), July 7(W)): 3 x 10% = 30%
Test 1 (June 7(M)): 25%
Test 2 (July 5(M)): 45%

Course Project:
The project will be done by teams of 3 students. (Teams with more or less than 3 members will be allowed only under exceptional circumstances). All students in a team will get the same mark for the work they do unless they unanimously agree (in writing) to an unequal division. You are to choose your own team members. No late projects. An orphan will be assigned to a team by the instructor.

Course Objectives
To be able to systematically establish, define, and manage the requirements for a large, complex, changing, software-intensive system, be it organizational or mostly a computer sub-system. To be
able to understand the central issues which form the background to, or have tendency to deform, the process. To be able to understand, evaluate and choose from traditional techniques and further advances in the field.
Course Outline:

- Introduction to Requirement Engineering
- Requirements Engineering Process
- Requirements Elicitation: Part I
- Requirements Elicitation: Part II
- Scenarios
- Requirements Analysis, Modelling & Specification: Review
- Enterprise Requirements
- Functional Requirements: Structural Requirements
- Functional Requirements: Behavioral Requirements
- Non-Functional Requirements
- Requirements Validation
- CASE Technology
- Retrospective and Prospective

Academic dishonesty including cheating, plagiarism, collusion, and falsification of academic records is serious offence.

Online Course Material:

All (continuously evolving) course material can be accessed through http://www.utdallas.edu/~chung/RE/contents.html