

Time: Friday 6:20–9:10 pm, Fall 2012

Place: Eng. Building 1 Room 901, Department of IEEM, Tsing Hua University

Instructor:

Professor Wheyming Song

Office: Eng. Building 1 Room 815

Phone: 5742659 (Office)

Office Hour: TH: 2:00 - 3:30 pm; F: 10:00 - 11:30 am,

TA: 羅貴強

Office Hour: W: 1:00 - 2:00 pm (Room 720)

Course Objective:

Many systems with which people must deal in today's and tomorrow's environments lie outside of the domain of conventional textbook approaches to analysis and management. The purpose of this course is to introduce students to the fundamental concepts underpinning these system-types and to discuss methodological approaches to their analysis and management. The goal of this course is making quantitative decisions with qualitative information for complex enterprises.

TextBook and References:

The class is taught bascially from class notes. References include but not limited to

1. Sterman, John, Business Dynamics: Systems Thinking and Modeling for a Complex World, McGraw-Hill, 2000.
2. Performance Management, Gary Cokins, 2010.
3. Niels Blunch, Introduction to Structural Equation Modelling Using SPSS and Amos, 2008.

Contents:

1. Structural Equation Modeling (using AMOS)
2. Discrete Event Simulation (using Flexsim)
3. Intelligent Agents (using NetLogo)
4. Business Risk and Performance Analysis (using Boss and Business Winner) (optional)

Homework: Homework will be assigned approximately weekly and is held on Friday unless otherwise specified.

Projects: There are few term projects and one final project Two students are assigned to form a group to work on term project. Each group is required to hand in a project report (2-3pages) and give a 10-minute presentation (in PowerPoint format) in class. Final project is for individual.

Grading:

Homework	20%	Class Discussion	20%
Term projects	30%		
Final Project	30%		