

Time: T3T4R4, Fall 2015

Place: Eng. Building 1 Room 103, 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; TH: 2:00 - 3:30 pm,

TA:

Office Hour: (Room 720)

Course Objective:

The goal is to provide a sound understanding of the principles and the basis for modern statistical methods for quality control and improvement.

Textbook: Statistical Quality Control, A modern Introduction by Douglas C. Montgomery, seven edi. John Wiley and Sons, Inc. 2013.

Contents:

1. Modern quality management and improvement
2. The DMAIC problem solving process
3. Statistical models and Inference for quality control and improvement
4. Variables control charts
5. Attributes control charts
6. Determining process and measurment systems capability
7. Design of Experiments

Quizzes: A 10-15 minute quiz usually is given on Tuesday.

Homework: Homework will be assigned approximately weekly.

Examinations: There are one midterm and one final. All are closed book and closed note. For mid-term examinations, you are allowed to bring one side of A4 paper. For final examination, you are allowed to bring three one-sided A4 papers of note. They are comprehensive, but have emphasis on material covered since the previous exam. Exam questions are typically not from the book.

Projects: There are one final project on design of experiments. five or six 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%	Quiz	20%
Midterm	20%	Final	20%
Final Project	20%		