

Time: T3T4R4, Fall 2017

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: T.TH: 2:00 - 3:30 pm;

TA: 許峻銘, 黃品皓

Office Hour: T.TH: 2:00 - 3:30 pm and also by appointment. (Room 706-1)

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. Review Probability and Statistics (Chapters 1-4)
2. Statistical Control Charts (Chapters 5-7, 9 ,10.4)
3. Determining Performance Measures (process and measurement systems capability) (Chapter 8)
4. Design of Experiments (DOE) (Chapter 13)
5. Acceptance Planing (Chapter 13, optional)

Quizzes: A 10-15 minute quiz usually is given on Thursday. closed notes and closed book. No make-up quizzes are given for any reason, but the two lowest quizzes grades will be dropped.

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. Final Exam is comprehensive, but have emphasis on material covered since the previous exam.

Final Presentation: Each student presents a 2-4-page (in MS Power Point format) report indicating the knowledge learned in this course. (format: suggests to illustrate the difference “before” and “after” of this course.) Final project is for individual.

Grading:

Homework	20%	Quiz	20%
Midterm	25%	Final	25%
Final Project	10%		