

Quality Control , Fall 2020

National Tsing Hua University
Tuesday 10:10 - 12:00 ; Thursday 11:10 - 12:00

Depart. of IEEM

1. **Instructor:**

Professor Wheyming Song 桑慧敏
Office: 815, Engineering Building No.1; Phone: 5742659(office)
Email: wheyming@ie.nthu.edu.tw

2. **TA:**

陳宣任; 卓好庭; 尤子維; 蘇品融
Email:

- ac108034557@gapp.nthu.edu.tw (陳宣任)
- ms108034548@gapp.nthu.edu.tw (卓好庭)
- jim108034553@gapp.nthu.edu.tw (尤子維)
- su108034531@gapp.nthu.edu.tw (蘇品融)

Office: 706-1, Engineering Building No.1
Office Hour:

- Tue. 15:00 - 17:00
- Thu. 15:00 - 17:00

3. **Goal:**

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

4. **Textbooks:**

1. Statistical Quality Control, A modern Introduction by Douglas C. Montgomery, seven edi. John Wiley and Sons, Inc. 2013.
2. 桑慧敏 (2018). 一生受用的統計學: 大數據分析之鑰.
總經銷: 清華大學水木書苑

5. **Grading:**

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

Schedule:

Week	Date	Course Content	Quiz	HW
1	09/15 09/17	大數據解析與趣味 Ch1. Modern Quality Management And Improvement Ch2. The DMAIC Problem Process		
2	09/22 09/24	Ch3. Statistical Models Or Quality Control And Improvement Ch4. Statistical Inference In Quality Control And Improvement	Quiz1	HW1
3	09/29 10/01	Ch5. How SPC Works *(Grouping) 中秋節放假	Quiz2	HW2
4	10/06 10/08	Ch5. How SPC Works Ch6. Variables Control Charts	Quiz3	HW3
5	10/13 10/15	Ch6. Variables Control Charts	Quiz4	HW4
6	10/20 10/22	Ch7. Attributes Control Charts	Quiz5	HW5
7	10/27 10/29	Ch7. Attributes Control Charts Ch8. Determining Process And Measurement Systems Capability	Quiz6	HW6
8	11/03 11/05	Ch8. Determining Process And Measurement Systems Capability Ch9. Time-Weighted Control Charts	Quiz7	HW7
9	11/10 11/12	Ch10.4. Spc With Autocorrelated Process Data	Quiz8	HW8
10	11/17 11/19	Ch10.4. Spc With Autocorrelated Process Data	Quiz9	HW9
11	11/24 11/26	Ch13. Basic Experimental Design For Process Improvement		
12	12/01 12/03	Students' Midterm Presentation		
13	12/08 12/10	Midterm (Ch.1-10.4) Ch13. Basic Experimental Design For Process Improvement		
14	12/15 12/17	Ch13. Basic Experimental Design For Process Improvement	Quiz10	HW10
15	12/22 12/24	Ch13. Basic Experimental Design For Process Improvement	Quiz11	HW11
16	12/29 12/31	Ch15. Basic Acceptance Sampling Procedures	Quiz12	HW12
17	01/05 01/07	Students' Final Presentation		
18	01/12 01/14	Final Exam		