國立台灣科技大學 114學年 第2學期　課程大綱

Spring 2026 NTUST Course Outline

授課教師：葉瑞徽

Instructor:Ruey-Huei Yeh

課程名稱：品質管理與個案分析

Course Title：Quality Management and Case Study

2026/11/3

課程代號：IM9013701 Course Code 學分數：3 Credits	必選修：選修/半學年 Required/Electve:Elective/Half Yr. 先修課程： Prerequisites
節次教室：WA(MA-101) WB(MA-101) WC(MA-101) Time/Location	
專業核心能力：問題解決能力 Core Professional Competencies Problem Solving skills	
課程網址：https://moodle2.ntust.edu.tw/ Course Website	
課程宗旨： Course Objectives	課程目標：本課程主要教授品質管理之哲學、方法、與工具，並透過產業個案分析，體驗實務情境，掌握品質管理方法與工具之運用。 課程內容：內容包含兩大部份，首先介紹品質管理之哲學、方法、與工具，包括品質管制模式、六標準差、品管手法、製程控制、製程能力分析、田口方法、與其它品質改善技巧。接著，透過產業品質管理之個案分析，體驗實務情境，運用品質管理方法與工具，藉以提出改善措施。
課程大綱： Outline of Lectures	Week 01 (02/25) Introduction, 分組 Week 02 (03/04) Quality Improvement Week 03 (03/11) Modeling Process Quality Case C11-1 (Sampling) Week 04 (03/18) Inference about Process Quality Week 05 (03/25) Inference about Process Quality Case C12-1 (Quality Cost) Week 06 (04/01) Statistical Process Control Week 07 (04/08) Statistical Process Control Case C8-2 (PDSA) Week 08 (04/15) 期中報告 Week 09 (04/22) ESG introduction (協同) Week 10 (04/29) Control Charts for Variables Case C10-1 (SPC) Week 11 (05/06) Control Charts for Attributes Case C10-2(SPC) Week 12 (05/13) Process Capability Analysis Case OP-10 (performance) Week 13 (05/20) Other Techniques, CUSUM & EWMA Week 14 (05/27) 協同教學 Week 15 (06/03) QFD & FMEA Week 16 (06/10) 期末報告
授課方式： Method of Instruction	講授 Lecture：50% 分組討論 Group discussion：20% 案例研討 Case study：0% 操做練習 Practical exercises：30% 講授 Lecture：We will invite an expert in the industry to share his/her experience of the concept and trend of ESG for three class hours.%
教科書： Textbooks	Douglas C. Montgomery, “Introduction to Statistical Quality Control”, 8th Asia Edition, Wiley, 2020.

參考書目： References	"Cases in Quality", by Gregory M. Bounds, Irwin, 1996. "Essentials of quality : with cases and experiential exercises", by Victor E. Sower, John Wiley & Sons, 2011. "Cases in total quality management", by John S. Oakland and Leslie J. Porter Butterworth-Heinemann, 1994.
修課須知： Notice	Classnotes can be downloaded from Moodle system.
評量方式： Grading	60% 上課出席與參與個案討論 40% 課堂活動與分組報告
備註說明： Notes	具備基本統計學基礎。