

朝陽科技大學 095學年度第2學期教學大綱
Reliability Analysis 可靠度分析

當期課號	7161	Course Number	7161
授課教師	鄭純媛	Instructor	CHENG,CHUN YUAN
中文課名	可靠度分析	Course Name	Reliability Analysis
開課單位	工業工程與管理系碩士班一A	Department	
修習別	選修	Required/Elective	Elective
學分數	3	Credits	3
課程目標	如何分析系統可靠度，包含不同的組件失敗率函數；組合的子系統失敗率探討、整體系統期望壽命之探討，本課程著重以數理基礎來探討系統可靠度、可靠度規格之要求及設計。	Objectives	The course covers the theoretical development and application for reliability. Selected topics include hazard functions, system reliability estimation for parallel or series systems or more complex system, estimation of parameters of failure time distribution, models for accelerated life testing, warranty and preventive maintenance models.
教材	An Introduction to Reliability and Maintainability Engineering 作者：Charles E. Ebeling 出版社：McGraw-Hill (高立圖書公司代理)	Teaching Materials	An Introduction to Reliability and Maintainability Engineering, Author : Charles E. Ebeling ,McGraw-Hill
成績評量方式	平常成績：50% [作業(15%)，小考(20%)，報告(15%)] 期中考：25% 期末考：25%	Grading	Homework:15% Quiz: 20% Report: 15% Midterm Exam. : 25% Final Exam. : 25%
教師網頁	www.cyut.edu.tw/~cycheng		
教學內容	1.了解可靠度分析之基本概念、數學與統計方法，並能正確地分析並聯、串聯及複雜系統之可靠度。 2.了解可靠度設計、預測與建模之方法與應用。	Syllabus	The course covers the basic concepts, theoretical development, and application of reliability analysis. Selected topics include hazard functions, system reliability estimation for parallel or series systems or more complex system, estimation of parameters of failure time distribution, models for accelerated life testing, warranty and preventive maintenance models.

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