開南大學 96 年度第 1 學期 專案管理研究所 教學計劃表

科目代碼	科目名稱	授課教師	修別	開課年級	學分數	每週時數
D760 M1070	中文：系統工程	管孟忠	必修	研究所	3	3
	英文：System Engineering	先修課程	No			
教學目標與內容	Systems Engineering (SE) is an interdisciplinary field of engineering, that focuses on the development and organization of complex artificial systems. Systems Engineering integrates other disciplines and specialty groups into a team effort, forming a structured development process that proceeds from concept to production to operation and disposal. Systems Engineering considers both the business and the technical needs of all customers, with the goal of providing a quality product that meets the user needs. The course: objectives are following: (1) To provide a familiarization with the system engineering process. (2) To provide emphasis on a life-cycle approach relative to system design and development, production, operation, support, and retirement. (3) To provide a working knowledge of system requirements in reliability engineering, maintainability engineering, human factors, system safety, logistic support, and related areas. (4) To illustrate the integrated interdisciplinary systems' approach. Emphasis will be on Engineering Design activities (versus "System Theory" concepts). This course is intended to complement -- Applied Systems En					
實施方法	講解法。 實作法。討論法。 演習法。問答法。 其他（考試）。					
評量方式	期中測驗 20% 。期末測驗 20% 。平時成績 10% 。研究報告成績50% 。					
授課使用及參考書籍	(請按作者、書名、版別、出版商、發行地、出版年份、起訖頁數順序填寫)。					
	1. Blanchard, B.S. and W.J. Fabrycky, SYSTEMS ENGINEERING AND ANALYSIS, 4th Edition, Prentice-Hall, Englewood Cliffs, N.J., 2007; 2.管孟忠主編，「系統工程特訓教材」，2007。					

科目簡介(可含大綱及教學進度)：

1.Introduce to course; course objectives; system terms and definitions; the system engineering process; system effectiveness evaluation.
2.Conceptual system design; identification of needs; feasibility analysis; operational requirements; maintenance concept.
3.Conceptual system design; customer requirements; requirements analysis; quality function deployment (QFD).
4.Quality function deployment (QFD); requirements analysis; design criteria; system specification; technical performance measures (TPMs).
5.Identification and prioritization of technical performance measures (TPMs); design criteria; functional analysis.
6.Preliminary system design; functional analysis; operational and maintenance functions; allocation of requirements; design criteria; system specification.
7.Detail design and development; synthesis, analysis and trade-off studies; models; design integration; design review.
8.System test and evaluation requirements; formal test and evaluation; data collection, analysis, feedback, and corrective action; production and/or construction requirements; a system utilization and support; and retirement/disposal.
9.Individual student presentations on selected projects; identification of team members/leader; name (type) of "system" to be addressed.
10.DISTRIBUTION OF TEST NUMBER 1.
11.System engineering planning; program tasks; system engineering management plan; supplier requirements.

說明：1.授課教師於學期前填寫本表，經課程委員會審核後，影印分送給教師所屬課程委員會召集人，授課班級所屬系、所及教務處課務組;並於開始上課時，將本內容向學生說明。2.本表於91.4.23第四次校課程委員會討論通過。 Designer:jimmy

課程委員會召集人：

授課教師：管孟忠

課務組 96. 9. 14 收文章