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：黃政嘉

Instructor:JHENG-JIA HUANG

課程名稱：系統分析與設計

Course Title：System Analysis and Design

2026/11/3

課程代號： MI4001301 Course Code 學分數： 3 Credits	必選修：必修/半學年 Required/Electve:Required/Half Yr. 先修課程： Prerequisites
節次教室： T6(TR-312) T7(TR-312) T8(TR-312) Time/Location	
專業核心能力： Core Professional Competencies	
課程網址： Course Website	
課程宗旨： Course Objectives	本課程將使學生瞭解系統分析的觀念、資訊系統分析及設計之步驟及各步驟之操作概念以及現有相關之方法，並強調資訊需求、傳送與蒐集邏輯分析與設計之技巧的重要，最後並舉出若干實例，以進一步說明系統分析相關的操作概念。 The course introduces the students to the concepts and skills of system analysis and design. It includes expanded coverage of data flow diagrams, data dictionary, and process specifications. The course aims to as to introduce variety of new software used by analysts, designers to manage projects, analyze and document systems, design new systems and implement their plans. It introduces also a recent coverage of UML. The course will cover the following topics: 1. Introducing SA&D 2. SA&D concepts, Roles of system analyst 3. The system development life cycle 4. Information requirements analysis: Sampling and investigating data, interviewing, using questionnaires 5. Prototyping 6. Using data flow diagram; Using data dictionaries; Describing process specifications and structured decisions; The system proposal 7. Designing output; Designing input; Designing the file or database; Designing the user interface 8. Case Study
課程大綱： Outline of Lectures	

	本課程將使學生瞭解系統分析的觀念、資訊系統分析及設計之步驟及各步驟之操作概念以及現有相關之方法，並強調資訊需求、傳送與蒐集邏輯分析與設計之技巧的重要，最後並舉出若干實例，以進一步說明系統分析相關的操作概念。 The course introduces the students to the concepts and skills of system analysis and design. It includes expanded coverage of data flow diagrams, data dictionary, and process specifications. The course aims to as to introduce variety of new software used by analysts, designers to manage projects, analyze and document systems, design new systems and implement their plans. It introduces also a recent coverage of UML. The course will cover the following topics: 1. Introducing SA&D 2. SA&D concepts, Roles of system analyst 3. The system development life cycle 4. Information requirements analysis: Sampling and investigating data, interviewing, using questionnaires 5. Prototyping 6. Using data flow diagram; Using data dictionaries; Describing process specifications and structured decisions; The system proposal 7. Designing output; Designing input; Designing the file or database; Designing the user interface 8. Case Study
授課方式： Method of Instruction	講授 Lecture：30% 分組討論 Group discussion：30% 案例研討 Case study：40% 操做練習 Practical exercises：0% 講授 Lecture：%
教科書： Textbooks	Kendall & KendallSystems Analysis and Design, Global Edition, 9e
參考書目： References	Kendall & KendallSystems Analysis and Design, Global Edition, 9e
修課須知： Notice	N/A
評量方式： Grading	This course adopts a multiple assessment approach, with a total of 100 points. The midterm and final presentations each account for 30% of the overall grade, evaluating students' ability to plan and present system proposals. Class participation and reports make up the remaining 40%, with emphasis on students' learning attitude, in-class engagement, and the quality of their regular submissions.
備註說明： Notes	Students enrolling in this course are recommended to have the following foundational skills: Basic English Proficiency: Ability to read and comprehend English teaching materials and related technical documents. Fundamental AI Tool Skills: Basic hands-on experience with AI tools, such as the application of generative AI (e.g., ChatGPT, Claude, etc.). Basic Information Technology Background: Familiarity with foundational computing concepts, such as programming logic, system concepts, or relevant