國立勤益科技大學
National Chin-Yi University of Technology

115 學年度 1 學期課程大綱
Year of _____Syllabus

部別 Department	■日間部 Regular Day School □進修部 Division of Countinuing Education	學制 School System	□博士 Doctoral Degree ■碩士 Master's Degree □四技 Bachelor's Degree (4-year College) □二技 Bachelor's Degree (2-year College) □二專 Associate Degree (2-year program)
授課教師 Instructor(s)	林家禎	開課代碼 Course Code	G802
科目名稱 Course Name	資訊系統個案研究 Information Systems Case Studies	必/選修 Required/Elective	□必修 Required ■選修 Elective
開課年級 Grade	博碩一二選	開課學期 Semester	■上 Fall □下 Spring
開課單位 Course Department	資訊工程學系	學分/學時數 Credit/Hours	3 /3
全程外語授課 Foreign language Teaching entirely	■是 Yes □否 No	主要授課語言 Main language	英語 English
先修課程 Prerequisite course(s)	None		
優質課程類別 Course attributes (可複選)	■一般課程 General Courses □智慧財產權 Intellectual Property □內涵式服務學習課程 Service Learning □性別平等 Gender Equality □綠色課程 Green Technology■創新創意課程 Innovation □工作（職場）倫理課程 Career Ethics □工具機技術研發 Tool Machine Technology Development 創新、創意課程定義：課程目標為「激發學生獨特的想像與創意思考，透過企劃與執行以創新模式解決實際問題。 Definition of Innovation and Creative courses: the objectives of the course aim to stimulate students' imagination and creative thinking skills, and to solve practical problems with innovative modes through planning and implementing different tasks.		
課程與校核心能力關聯 Core competence (可複選，至多選4項)	□表達溝通能力 Communication and Presentation Skill ■創意創新能力 Innovation Skill □關懷服務能力 Community Care and Service Skill ■思考推理能力 Thinking and Reasoning Skill ■專業實務能力 Professional Practice Skill ■宏觀視野能力 Macro Skill		
教科書 Textbook	1. Managing IoT Systems for Institutions and Cities (Security, Audit and Leadership Series) 1st, Chuck Benson, Auerbach Publications, 2019. 2. Digital Transformation: Strategy, Execution and Technology 1st, Auerbach Publications,2022		
參考書目 Other References	Some digital transformation cases collected from the Internet		
課程目標 Course objectives	Taking digital transformation as an entry point, students are guided to think about what role information systems, such as IoT, Drones, cloud technology, digital twins, blockchain, and so on, will play in this wave of corporate digital transformation. It is hoped that through the enterprise operation model, students can understand the functions that information systems can play through different enterprise transformation cases, as well		

	as the stimuli, assistance, and potential security threats produced by various innovative technologies in the process of information system development.
評量方式 Evaluation	出席 Attendance (x) 作業 Assignments (x) 平時考 Quizzes/Tests ( ) 期中考 Midterm Exam (x) 期末考 Final Exam (x) 其他:(請敘述非筆試之評量方式) Other (please explain the evaluation methods if there are no written exams):
內容綱要 Course Outline	1. Case Study of Information Systems vs. Digital Transformation Concept 2. Information Systems vs. Business Operations 3. Stages/Theoretical Framework of Digital Transformation vs. Value of Digital Transformation 4. Digital Transformation Maturity Model vs. Digital Transformation Indicators 5. Introduction of Procedures and Management Issues of Digital Transformation 6. Key Technologies (IoT, Drones, cloud technology, digital twins, blockchain) vs. Operational Transformation Cases 7. Customer experience transformation case 8. Business Model Reengineering Transformation Case 9. Security Threats During Adopting IT into Businesses 10. Blockchain: Introduction/Analysis and Discussion of Consensus Algorithms/ Basic Concept from Bitcoin to Blockchain/ Smart Contract Planning/ Business Application Model and Security Analysis
自編教材 Self-compiled textbook (非自編教材請填寫原因)	■是 Yes □否 No,原因 Reason(s):
符合智財規範 Compliance with Intellectual property (不符合智財規範請填寫原因)	■是 Yes □否 No,原因 Reason(s):
備註 Note	Midterm presentation 30%, Final project 30%, Attendance 20%, Participation 20%

教學進度 Course schedule		
週次 Week	教學與作業進度 Teaching Schedule/Assignments	備註 Note
1	Case Study of Information Systems vs. Digital Transformation Concept	
2	Information Systems vs. Business Operations	
3	Stages/Theoretical Framework of Digital Transformation vs. Value of Digital Transformation	
4	Digital Transformation Maturity Model vs. Digital Transformation Indicators	
5	Introduction of Procedures and Management Issues of Digital Transformation	
6	Key Technologies (IoT, Drones, cloud technology, digital twins, blockchain) vs. Operational Transformation Cases: part I	
7	Key Technologies (IoT, Drones, cloud technology, digital twins, blockchain) vs. Operational Transformation Cases: part II	

8	Customer experience transformation case	
9	期中考 Midterm Exam	
10	11. Business Model Reengineering Transformation Case	
11	12. Security Threats (IT) During Adopting IT into Businesses: part I	
12	13. Security Threats (IT) During Adopting IT into Businesses: part II (Simulation)	
13	14. Security Threats (OT) During Adopting IT into Businesses: part I	
14	15. Blockchain 1: Analysis and Discussion of Consensus Algorithms	
15	16. Blockchain 2: Basic Concept from Bitcoin to Blockchain	
16	17. Blockchain 3: Smart Contract Planning	
17	18. Blockchain Business Application Model and Security Analysis	
18	期末考 Final Exam	

請遵守智慧財產權觀念，不得非法影印
Please respect the copyright and do not copy or reproduce any part of the book.