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：許聿靈

Instructor:Yu-Ling Hsu

課程名稱：人因工程學

Course Title：Human Factors

2026/11/3

課程代號： IM4606301 Course Code 學分數： 2 Credits	必選修：必修/半學年 Required/Electve:Required/Half Yr. 先修課程： Prerequisites
節次教室： Time/Location	W6(MA-101) W7(MA-101)
專業核心能力： Core Professional Competencies	
課程網址： Course Website	
課程宗旨： Course Objectives	The course aims to develop students' fundamental understanding of human factors and ergonomics, with emphasis on designing work systems, products, and environments that are safe, efficient, comfortable, and user-centered. Students will learn key principles related to anthropometry, workplace design, work safety, information processing, visual information design, environmental conditions, human control of systems, hand tools, physical work, and transportation safety. The course also aims to strengthen students' ability to identify human-centered design problems and apply ergonomic methods to practical contexts. Through problem-based learning activities, examinations, and a final project, students will analyze user needs, evaluate work-related risks and limitations, and develop feasible design recommendations that improve human performance, safety, and well-being in operational environments.
課程大綱： Outline of Lectures	2/25 Course Introduction 3/4 Human Factors Introduction 3/11 Anthropometry & Workplace Design (PBL 1) 3/18 Work Safety and Employee Ergonomics 3/25 Information Input and Processing 4/1 Visual Information Design (PBL 2) 4/8 Visual Information Design II & Mid-Term Preparation 4/15 Mid-Term Exam 4/22 Environmental Condition (PBL 3) 4/29 Human Control of Systems 5/6 Hand tool and Devices (PBL 4) 5/13 Physical Work and Manual Material Handling 5/20 Transportation Safety and Human Factor 5/27 Final Project Festival (PBL 5) 6/3 Final Exam Review 6/10 Final Exam
授課方式： Method of Instruction	講授 Lecture：40% 分組討論 Group discussion：25% 案例研討 Case study：25% 操做練習 Practical exercises：10% 講授 Lecture：%

教科書： Textbooks	Human Factors in Engineering and Design (7th Edition), Mark S. Sanders & Ernest J. McCormick (ISBN:978-986-157-217-8)
參考書目： References	Human Factors in Engineering and Design (7th Edition), Mark S. Sanders & Ernest J. McCormick (ISBN:978-986-157-217-8) 人因工程 工程與設計之人性因素(上)(下)(第7版)、 人因工程:人機環設計原理與實務應用，紀佳芬等著 人因工程: 人機境介面工適學設計(第6版), 許勝雄等著
修課須知： Notice	We have TAs
評量方式： Grading	Attendance 10% PBL sessions (Group Discussion/ Presentation) 20% Mid-term Exam 20% Final Exam 30% In Class Kahoot and Participation (ex. Quiz, Class QA etc) 20%
備註說明： Notes	N/A