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：人因工程實習

Course Title：Human Factors Practice

2026/11/3

課程代號： IM4708301 Course Code 學分數： 1 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	T6(MA-010) T7(MA-010)
專業核心能力： Core Professional Competencies	
課程網址： Course Website	
課程宗旨： Course Objectives	This complementary hands-on course is designed to reinforce and extend students' learning in the Human Factors course through practical, activity-based applications. It provides opportunities for students to apply key ergonomic and human-centered design principles—including anthropometry, mental workload, Fitts' s Law, sensory thresholds, environmental conditions, and manual material handling—to real products, workplaces, and user-interaction scenarios. The course aims to develop students' design-thinking, observation, measurement, and problem-solving skills. Through group-based exercises, a guest lecture, unit activities, and a final project, students will identify human-centered problems, collect and interpret relevant data, and develop feasible design improvements. The course emphasizes learning by doing and helps students translate human factors theory into practical solutions that improve safety, usability, comfort, and user performance.
課程大綱： Outline of Lectures	2/24 Course Introduction and Group Division 3/3 Design Thinking 3/10 Guest Lecture 3/17 Unit 1: Anthropometry 3/24 Unit 2: Anthropometry Application 3/31 Unit 3: Mental Workload 4/7 Unit 4: Fitt' s Law 4/14 Final Project Proposal Discussion 4/21 Unit 5: Absolute Threshold and Different Judgment 4/28 Final Project Proposal Presentation 5/5 Unit 6: Illuminance and Noise 5/12 Final Project Discussion 5/19 Unit 7: Manual Material Handling
授課方式： Method of Instruction	講授 Lecture：40% 分組討論 Group discussion：30% 案例研討 Case study：0% 操做練習 Practical exercises：30% 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) Introduction to Human Factors and Ergonomics (4th Edition), Bridger R.S (ISBN: 978-1-4987-9594-4)
修課須知： Notice	we have TA
評量方式： Grading	In-class assignment (Design Thinking, Guest Lecture, Unit 1-7) 30% Pre-Class Moodle Video Assignment (Unit 1-7) 20 % Final project proposal 15% Final project 30% Class participation ex. QA…5%
備註說明： Notes	N/A