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：林久翔

Instructor:Chiuhsiang Joe Lin

課程名稱：人因工程生理基礎

Course Title：Physiological Foundations in Human Factors

2026/11/3

課程代號： IM7303701 Course Code 學分數： 3 Credits	必選修：選修/半學年 Required/Electve:Elective/Half Yr. 先修課程： Prerequisites
節次教室： F2(MA-207) F3(MA-207) F4(MA-207) Time/Location	
專業核心能力： Core Professional Competencies	
課程網址： Course Website	
課程宗旨： Course Objectives	This is an advanced ergonomic course for graduate student in industrial management. We will examine various factors affecting human physical performance in industries. In the course, the regulatory mechanism of various body functions at rest and during work will be introduced, elementary human anatomy, physiological and biomechanical events will be explained, and most important of all, design and redesign issues of task in the workplaces will be exercised.
課程大綱： Outline of Lectures	1.Introduction to Ergonomics　2.Stress and Fatigue 3.Skeletal System　4.Muscular System 5.Work Physiology　6.Performance Evaluation and Test 7.Cumulative Trauma Disorders　8.Energy Prediction for Human Work 9.Manual Materials Handling　10.Ergonomics Checklists 11.Physiological Measurements
授課方式： Method of Instruction	講授 Lecture：60% 分組討論 Group discussion：20% 案例研討 Case study：20% 操做練習 Practical exercises：0% 講授 Lecture：%
教科書： Textbooks	Lecture Notes
參考書目： References	1. Introduction to Ergonomics, R.S. Bridger, ISBN 0849373069 2. Occupational Ergonomics - Principles and Applications, Fariborz Tayyari, ISBN 0412586509 3. Textbook of Work Physiology, Per-Olof Åstrand, ISBN 0736001409 4. ILO Ergonomics Checkpoints
修課須知： Notice	English writing, reporting, and presentation skills are required.
評量方式： Grading	

	1. ILO Ergonomics Checkpoints (EC) Presentation, 20% 2. Risk Assessment Tool (RAT) Presentation, 20% 3. Experimental Project (EP) Presentation, 30% 4. Final Exam (Open Notes), 30% 5. For each absent meeting, 5 points will be deducted from your average final grade.
備註說明： Notes	English writing, reporting, and presentation skills are required.