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：陳秀玲

Instructor:Hsiu-Ling Chen

課程名稱：資訊科技融入教學

Course Title：Integrating Technology into Instruction

2026/11/4

課程代號：VE5210701 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：T2(T4-302) T3(T4-302) T4(T4-302) Time/Location	
專業核心能力： Core Professional Competencies	
課程網址： Course Website	
課程宗旨： Course Objectives	Instructional technology is becoming an increasingly important part of education. In the course, students will examine and explore technology integration strategies within networked computing environments. Content will include an examination of technology integration techniques using various application tools, educational robotics, and Gen AI. Students will also identify relative advantages for choosing technology integration strategies and resources to develop their own technology integration activities.
課程大綱： Outline of Lectures	Week Date Topic 1 2/24 Overview 2 3/3 Introduction of ICT Integration 3 3/10 ISTE Standards and Instructional Design Models: ASSURE and ADDIE 4 3/17 Teaching with the TPACK Framework 5 3/24 TPACK in the Age of Artificial Intelligence 6 3/31 The Robot as a Social Agent 7 4/7 Introduction to Educational Robotics - Kebbi Robotics 8 4/14 Midterm Presentation 9 4/21 Designing Digital Learning Environments 10 4/28 Theoretical Foundations of Educational Robotics 11 5/5 The Potential Impact of AI on Education 12 5/12 The IDEE Model in AI era 13 5/19 Application of Kebbi Robotics - Workshop 14 5/26 Final Presentation (I) 15 6/2 Final Presentation (II) 16 6/9 Term Project
授課方式： Method of Instruction	講授 Lecture：35% 分組討論 Group discussion：30% 案例研討 Case study：15% 操做練習 Practical exercises：20% 講授 Lecture：%
教科書： Textbooks	

	Smaldino, S. E., Lowther, D. L., Mims, C. & Russell, J. D. (2018). Instructional technology and media for learning (12th ed.). Boston: Pearson. Mishra, P., Warr, M., & Islam, R. (2023). TPACK in the age of ChatGPT and Generative AI. Journal of Digital Learning in Teacher Education, 39(4), 235-251. Alnajjar, F., Bartneck, C., Baxter, P., Belpaeme, T., Cappuccio, M., Di Dio, C., ... & Reich-Stiebert, N. (2021). Robots in education: An introduction to high-tech social agents,intelligent tutors,and
參考書目： References	Awad, P., & Oueida, S. (2024, March). The potential impact of artificial intelligence on education: Opportunities and challenges. In Future of Information and Communication Conference (pp. 566-575). Cham: Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-53963-3_39 Su, J., & Yang, W. (2023). Unlocking the power of ChatGPT: A framework for applying Generative AI in education. ECNU Review of Education, 6(3), 355-366. International Society for Technology in Education Standards
修課須知： Notice	Attend class punctually. If you are ill or have an unavoidable conflict, please email to let me know ahead of time. Participate in class discussions. Join in the conversation and listen carefully to your classmates. Make every attempt to turn work in on time. Let me know if technical difficulties are interfering with your timeline and I will try to help you get back on track. If you have problems, talk to me in class, after class, or make an appointment by e-mail.
評量方式： Grading	Participation 35% (Kahoot, Classroom Activity, and Online Discussion) Midterm Presentation 15% Educational Robotics 15% Final Presentation + Term Project 35%
備註說明： Notes	Regular attendance and active engagement are required in Kahoot quizzes, discussions, readings, assignments and other activities associated with college scholarship. Students are also expected to display professional behaviors such as teamwork, punctuality, reliability and reflective practice. Full credit for assignments depends upon evidence you have planned and engaged in the production of the necessary material; the primary source for that evidence is your observable activity in class.