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：羅士哲

Instructor:Shih-Che Lo

課程名稱：計算機程式

Course Title：Computers Programming

2026/11/3

課程代號： IM1201301 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	M6(MA-417) M7(MA-417)
專業核心能力： Core Professional Competencies	
課程網址： Course Website	moodle2.ntust.edu.tw
課程宗旨： Course Objectives	This course aims to provide students with an in-depth understanding of fundamental programming concepts, emphasizing their practical implementation using Python. Throughout the course, students will explore core programming principles, including data structures, algorithms, control flow, and object-oriented programming. The curriculum is designed to highlight the essential features of programming languages, enabling students to develop efficient solutions to complex problems encountered in engineering, management, and related fields.
課程大綱： Outline of Lectures	This course is a comprehensive, one-semester (16-week) program designed specifically for first-year undergraduate students in the School of Management. 1. Scratch 2. An introduction to Python 3. Simple Numerical Programs 4. Functions and Scoping 5. Recursive 6. Global Variable, Modules and File 7. Tuples, Lists and Mutability 8. Functions as Object, Sequence Types, and Dictionaries 9. Testing and Debugging 10. Exceptions and Assertions 11. Class and Object-Oriented Programming I 12. Class and Object-Oriented Programming II 13. Algorithm Complexity 14. Searching, Sorting, and Hash Table
授課方式： Method of Instruction	講授 Lecture：100% 分組討論 Group discussion：0% 案例研討 Case study：0% 操做練習 Practical exercises：0% 講授 Lecture：N/A%
教科書： Textbooks	Introduction to Python for Computational Science and Engineering, Hans Fangohr, April 14, 2024.

參考書目： References	N/A
修課須知： Notice	第三週開始，每次上課課末皆有隨堂測驗，測驗內容為前一週之課程。
評量方式： Grading	- 30% Midterm Exam - 30% Final Exam - 40% Quiz
備註說明： Notes	N/A