



## 教學計劃表 Syllabus

|  |  |                             |                                 |   |        |
|--|--|-----------------------------|---------------------------------|---|--------|
| 課程名稱(中文)<br>Course Name in Chinese   | 行動裝置多媒體應用程式設計實作  |                             | 學年/學期<br>Academic Year/Semester | 113/1   |        |
| 課程名稱(英文)<br>Course Name in English   | Programming Multimedia APPs for Mobile Platforms   |                             |                                 |   |        |
| 科目代碼<br>Course Code  | CSIEB0400  | 系級<br>Department & Year     | 學三                              | 開課單位<br>Course-Offering Department  | 資訊工程學系 |
| 修別<br>Type   | 學程 Program   | 學分數/時間<br>Credit(s)/Hour(s) | 3.0/3.0                         |   |        |
| 授課教師<br>Instructor   | /羅壽之   |                             |                                 |   |        |
| 先修課程<br>Prerequisite   |  |                             |                                 |   |        |
| 課程描述 Course Description  |  |                             |                                 |   |        |
| Learn iOS app programming with Swift and SwiftUI, where you'll design and develop iOS apps using Xcode on an iMac.   |  |                             |                                 |   |        |
| 課程目標 Course Objectives   |  |                             |                                 |   |        |
| 1. 學習行動裝置應用程式設計<br>2. 知曉布局設計與應用程式框架<br>3. 由淺入深設計與發佈行動應用程式<br><br>1. To learn programming languages for mobile app development<br>2. To know the layout design and app architecture<br>3. To design and publish apps from scratch |  |                             |                                 |   |        |
| 系專業能力<br>Basic Learning Outcomes   |  |                             |                                 | 課程目標與系專業能力相關性<br>Correlation between Course Objectives and Dept.'s Education Objectives |        |
| A  | 資訊專業終身學習能力 Ability of lifetime learning in information profession                                |                             |                                 | ○   |        |
| B  | 實驗驗證資訊科學能力 Ability of validate experimental result validation in information science field       |                             |                                 |   |        |
| C  | 資訊工具整合運用能力 Ability of integrated applications of information technology                          |                             |                                 | ○   |        |
| D  | 資訊系統應用設計開發能力 Ability of information application system design and development                    |                             |                                 | ●   |        |
| E  | 團隊合作溝通協調能力 Ability of teamwork, communication, and coordination                                  |                             |                                 | ●   |        |
| F  | 資通訊科技問題解決能力 Ability of problem solving regarding information and communication technology        |                             |                                 | ●   |        |
| G  | 瞭解資訊科技多元影響能力 Ability to understand information technology's multiple influences                  |                             |                                 | ○   |        |
| H  | 肩負資訊人社會責任能力 Ability of bearing the social responsibilities being among information professionals |                             |                                 |   |        |
| 圖示說明 Illustration : ● 高度相關 Highly correlated ○ 中度相關 Moderately correlated  |  |                             |                                 |   |        |
| 授課進度表 Teaching Schedule & Content  |  |                             |                                 |   |        |
| 週次 Week  | 內容 Subject/Topics  |                             |                                 | 備註 Remarks  |        |
| 1  | (9/9) Course Introduction  |                             |                                 |   |        |

|    |                                     |  |
|----|-------------------------------------|--|
| 2  | (9/16) Swift Programming Language   |  |
| 3  | (9/23) SwiftUI: Views and Modifiers |  |
| 4  | (9/30) Compose Views                |  |
| 5  | (10/7) State, Binding, and MVVM     |  |
| 6  | (10/14) Input Interactions          |  |
| 7  | (10/21) Form/List and Navigation    |  |
| 8  | (10/28) Operations on List View     |  |
| 9  | (11/4) 期中考試週 Midterm Exam           |  |
| 10 | (11/11) Lazy layout and TabView     |  |
| 11 | (11/18) Gesture and Animation       |  |
| 12 | (11/25) Core Data / SwiftData       |  |
| 13 | (12/2) Work with Internet Data      |  |
| 14 | (12/9) Concurrency and Combine      |  |
| 15 | (12/16) APP Practices               |  |
| 16 | (12/23) Project Demo                |  |
| 17 | (12/30) Project Demo                |  |
| 18 | (1/6) (No class) Question Feedback  |  |

教學策略 Teaching Strategies

- 課堂講授 Lecture
  分組討論 Group Discussion
  參觀實習 Field Trip  
 其他 Miscellaneous:

教學創新自評 Teaching Self-Evaluation

創新教學(Innovative Teaching)

- 問題導向學習(PBL)
  團體合作學習(TBL)
  解決導向學習(SBL)  
 翻轉教室 Flipped Classroom
  磨課師 Moocs

社會責任(Social Responsibility)

- 在地實踐 Community Practice
  產學合作 Industry-Academia Cooperation

跨域合作(Transdisciplinary Projects)

- 跨界教學 Transdisciplinary Teaching
  跨院系教學 Inter-collegiate Teaching

- 業師合授 Courses Co-taught with Industry Practitioners

其它 other:

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學期成績計算及多元評量方式 Grading & Assessments

| 配分項目<br>Items                    | 配分比例<br>Percentage | 多元評量方式 Assessments |          |          |          |          |          |          |    |
|----------------------------------|--------------------|--------------------|----------|----------|----------|----------|----------|----------|----|
|                                  |                    | 測驗<br>會考           | 實作<br>觀察 | 口頭<br>發表 | 專題<br>研究 | 創作<br>展演 | 卷宗<br>評量 | 證照<br>檢定 | 其他 |
| 平時成績 General Performance         | 10%                |                    | ✓        |          |          |          |          |          |    |
| 期中考成績 Midterm Exam               | 20%                | ✓                  | ✓        |          |          |          |          |          |    |
| 期末考成績 Final Exam                 |                    |                    |          |          |          |          |          |          |    |
| 作業成績 Homework and/or Assignments | 50%                | ✓                  | ✓        |          |          |          |          |          |    |
| 其他 Miscellaneous (Project)       | 20%                |                    |          |          |          | ✓        |          |          |    |

評量方式補充說明

Grading & Assessments Supplemental instructions

教科書與參考書目 (書名、作者、書局、代理商、說明)

Textbook & Other References (Title, Author, Publisher, Agents, Remarks, etc.)

Beginning iOS 17 Programming with Swift and SwiftUI, Simon Ng

快速精通iOS 17程式設計：從零開始活用Swift與SwiftUI開發, Simon Ng, 博碩文化股份有限公司

課程教材網址(含線上教學資訊, 教師個人網址請列位於本校內之網址)

Teaching Aids & Teacher's Website(Including online teaching information.

Personal website can be listed here.)

<https://elearn4.ndhu.edu.tw/moodle/>

其他補充說明 (Supplemental instructions)