Introduction to Computer Course

課程名稱：資訊科技導論

Course Name：Introduction of information technology

**▲教學內容 Course Outline**

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| 週次 | 課程內容 | Course Outline |
| week1 | 計算機概論課程 | Introduction to Computer Course |
| week2 | 計算機硬體 | Computer Hardware |
| week3 | 計算機資料儲存 | Computer data storage |
| week4 | 計算機運算基礎與單元 | Computer Computing Fundamentals and Units |
| week5 | 作業系統 | Operating System |
| week6 | SQL資料庫導論 | SQL database systems |
| week7 | Python程式開發入門 | Getting started with Python programming |
| week8 | 計算機網路概論 | Introduction to Computer Networks |
| week9 | 期中考 | Mid-term exam |
| week10 | 網路封包分析 | Network packet analysis |
| week11 | 網路安全入門 | Getting started with cybersecurity |
| week12 | 網站架設 | Website setup |
| week13 | 網站開發導論 | Introduction to Website Development |
| week14 | 網站安全入門 | Getting started with website security |
| week15 | 雲端入門與docker實務 | Cloud entry and docker practice |
| week16 | 資料結構導論 | Introduction to Data Structure |
| week17 | 演算法導論 | Introduction to Algorithms |
| week18 | 期末考 | Final exam |

**▲教材與教法 Teaching Materials & Methods**

**1. Teaching Material**

1.計算機概論：探索電腦2018(Vermaat/Discovering Computers 2018: Digital Technology, Data, and Devices 1e)

作者： Misty E. Vermaat, Susan L. Sebok, Steven M. Freund, Jennifer T. Campbell, Mark Frydenberg

譯者： 陳玄玲

華泰文化出版社

2.用 Python 學運算思維(Get Programming: Learn to code with Python)

作者：Ana Bell 著、魏宏達 譯、施威銘研究室 監修

書號：F9751

**2. 參考書目 Reference Book**

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**3. 指定閱讀書籍 Assigned Book**

跟著實務學習HTML5、CSS3、JavaScript、jQuery、jQuery Mobile、Bootstrap 4&Cordova 增訂版（含MTA HTML&CSS國際認證模擬試題）

作者： 蔡文龍, 蔡捷雲, 歐志信, 曾芷琳

碁峰出版社

**4. 教學方式 Teaching Methods**

office coaching、practice

**5. 教材上網方式 On-line Materials**

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**▲學習成果考評方式 Assessment**

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| --- | --- | --- |
| 評量項目 | 配分比 | 評量方式 |
| Usual Tests | 40% | Homework grades  Paper-and-Pencil Test |
| Mid-term Exam | 30% | Paper-and-Pencil Test |
| Final Exam | 30% | Paper-and-Pencil Test |

**▲課程教學目標 Teaching Objectives**

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| 目標 | 說明 |
| 知識 | 讓學生了解資訊學科中，最重要的電腦架構、運作模式、系統、語言、資料庫、最新技術等主題。 |
| **Knowledge** | **Let students understand the most important topics of computer architecture, auxiliary modes, systems, languages, databases, and the latest technology in information disciplines.** |
| 技能 | 學習對於電腦的各運作單元與架構的組成，有更進一步的了解。 |
| **Skill** | **Learn to have a better understanding of the composition of each unit and structure of the computer.** |
| 態度 | 學習對於電腦基本組成單元與未來從事電腦資訊相關領域人員所需之專業態度。 |
| **Attitude** | **Learn the professional attitudes required for the basic components of computers and those who will be engaged in computer-related information in the future.** |
| 其他 | 藉由此課程，可以加強學生對於資工領域問題的了解，產業的發展，電腦未來的技術瓶頸與未來發展關鍵。 |
| **Other** | **The course can improve students' knowledge in the field of knowledge work, industry development, future computer technology routes and key aspects of future development.** |