



課 綱 Course Outline
資訊工程學系資工組

中文課程名稱 Course Name in Chinese	程式語言				
英文課程名稱 Course Name in English	Programming Languages				
科目代碼 Course Code	CSIE20400	班 別 Degree	學士班 Bachelor's		
修別 Type	學程 Program	學分數 Credit(s)	3.0	時 數 Hour(s)	3.0
先修課程 Prerequisite	程式設計、資料結構				
課程目標 Course Objectives					
介紹程式語言基本觀念、語法、語意、資料型態、語言處理等。					
系教育目標 Dept.'s Education Objectives					
1	具備學科知識、養成專業技能 Acquire academic knowledge, develop professional skills				
2	學習創新思考，分析解決問 Inspire innovative thinking, increase analytical problem solving ability				
3	培養團隊精神，學習溝通合作 Promote teamwork spirit, encourage coordination and cooperation				
4	提昇專業倫理、承擔社會責任 Sublimate professional ethics, engage social responsibility				
5	涵育人文素養、開拓國際視野 Cultivate humanities, broaden global perspective				
系專業能力 Basic Learning Outcomes				課程目標與系專業能力相關性 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 technolog	○
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

課程大綱
Course Outline

- Models of Computation
- History and Families of Programming Languages
- Formal Syntax Notation
- Syntax and Grammars
- Structured Programming Constructs
- Semantics
- Data Types, Parser and Compiler
- Object-Oriented Languages
- Functional and Logic Programming Languages
- Programming Environment and Systems

資源需求評估 (師資專長之聘任、儀器設備的配合 . . . 等)
Resources Required (e.g. qualifications and expertise, instrument and equipment, etc.)

語法分析與編譯器產生器 (Parser and Compiler Generators)

課程要求和教學方式之建議
Course Requirements and Suggested Teaching Methods

除了課程作業之外，應隨課程之進行，實際從事一個迷你語言的設計與實作。對於各種不同類型的語言，學生應嘗試其基本程式寫作，以實際體驗不同語言的特性。

其他
Miscellaneous