國立東華大學

教學計劃表　Syllabus

課程名稱(中文) Course Name in Chinese	程式語言與編譯器			學年/學期 Academic Year/Semester		112/2
課程名稱(英文) Course Name in English	Programming Languages and Compilers					
科目代碼 Course Code	CSIEB0480	系級 Department & Year	學二	開課單位 Course-Offering Department		資訊工程學系
修別 Type	學程 Program	學分數/時間 Credit(s)/Hour(s)		3.0/3.0		
授課教師 Instructor	/雍忠					
先修課程 Prerequisite						

課程描述　Course Description

This course introduces the basic concepts of programming languages and compilers, including the issues in syntax and semantics of programming languages, the process of programs, and the principles of compilers.

課程目標　Course Objectives

This course introduces the basic concepts of programming languages and compilers, including the issues in syntax and semantics of programming languages, the process of programs, and the principles of compilers.

	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 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	Course Overview	
2	Introduction, A Simple Compiler	
3	Scanning	

4	Grammars and Top-Down Parsing	
5	Programming Assignment #1	
6	Bottom-Up Parsing	
7	(Ching Ming Festival)	
8	Programming Assignment #1 (bonus due)	
9	LR Parsing	
10	Midterm Exam	
11	Introduction to programming Languages	
12	Evolution of programming Languages	
13	Names, Bindings, and Scopes	
14	Data Types	
15	Programming Assignment #2 (#1 due)	
16	Final Exam	
17	Programming Assignment #2 (bonus due)	
18	Late Hand-ins (#2 due)	

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 Industy-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:

配分項目 Items	配分比例 Percentage	多元評量方式 Assessments							
		測驗 會考	實作 觀察	口頭 發表	專題 研究	創作 展演	卷宗 評量	證照 檢定	其他
平時成績 General Performance	20%	✓							
期中考成績 Midterm Exam	25%	✓							
期末考成績 Final Exam	35%	✓							
作業成績 Homework and/or Assignments	20%		✓						
其他 Miscellaneous (＿＿＿＿＿)									

學期成績計算及多元評量方式 Grading & Assessments

評量方式補充說明
Grading & Assessments Supplemental instructions

(none)

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.)

(Textbook 1) Crafting a Compiler, by C. N. Fischer, R. K. Cytron, and R. J. LeBlanc, Jr., Pearson Press, 2010.
(Textbook 2) Concepts of Programming Languages, 12th Edition, R. W. Sebesta, Pearson Education Ltd., 2019.

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.)

www.elearn.ndhu.edu.tw

其他補充說明（Supplemental instructions）

(none)