

國立東華大學
教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	程式設計(二)			學年/學期 Academic Year/Semester	113/2
課程名稱(英文) Course Name in English	Introduction to Computer Programming (II)				
科目代碼 Course Code	DS_10030	系級 Department & Year	學一	開課單位 Course-Offering Department	大數據科學國際學士班
修別 Type	學程 Program	學分數/時間 Credit(s)/Hour(s)		3.0/3.0	
授課教師 Instructor	/楊舜博				
先修課程 Prerequisite					
課程描述 Course Description					
teaching the basic of C++ language and the OO programming					
課程目標 Course Objectives					
介紹程式設計基本觀念、方法與程式發展技術。 In this course, the teacher will introduce the basic concepts and methods of programming and its development techniques.					
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	具備基本資料科學知識及邏輯推理能力。have well-founded background in data science and logical reasoning,				●
B	具備機率、統計、資料科學及相關領域的知識與應用能力。have the knowledge of probability , statistics , data science and the related fields, and their applications,				●
C	具備資料科學應用技能與團隊合作，解決問題能力。be able to utilize data scientific skills for problem solving through cooperation and teamworking.				○
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	Introduce of the rule of this course Review of C language				
2	What is OO programming, what is the different between functional programming and OO programming Name space Class and Object declare a class member in class access modifier				
3	pointer and object constructor and destructor new and delete new and malloc				

4	references polymorphism	
5	cin and cout static member in class	
6	string stringstream ifstream and ofstream	
7	inheritance different access modifier in base class resulting different access in derived class constructor and destructor in derived class	
8	multiple inheritance	
9	期中考試週 Midterm Exam	
10	operator overloading	
11	foreach loop iterator	
12	virtual function pure virtual function and abstract class	
13	friend class const	
14	lambda expression	
15	template and concept	
16	STL container	
17	overall review	
18	期末考試週 Final Exam	

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:

學期成績計算及多元評量方式 Grading & Assessments									
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(含出缺席) General Performance (Attendance Record)	20%		✓						
期中考成績 Midterm Exam	30%	✓							
期末考成績 Final Exam	30%	✓							
作業成績 Homework and/or Assignments	20%		✓						
其他 Miscellaneous (_____)									
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.)									
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.)									
其他補充說明 (Supplemental instructions)									