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②國玄東華大學

教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	生物統計學				學年/學期 Academic Year/Semester		112/2	
課程名稱(英文) Course Name in English	Biostatistics							
科目代碼 Course Code	LF20400	系級 Department & Year	it 學二		開課單位 ourse-Offering Department	生命科學系		
修別 Type	學程 Program	學分數/時間 Credit(s)/Hour(s)			3.0/3.0			
授課教師 Instructor	/傅詩宸							
先修課程 Prerequisite								

課程描述 Course Description

Course description:

- An introduction to the use of statistical analysis in microbiome studies.
- Provides an understanding of the basic methods and underlying concepts of statistics that are used in analyzing microbiome data.
- Among topics explored are descriptive statistics, probability, sampling, hypothesis testing and non-parametric statistics.

Course Content:

- Introduction to Microbiome
- Bacterial Identification
- Fundamentals of Biostatistics
- Summaries of data
- Hypothesis test: type I/II error, power
- p-value/ Estimation/ SE/ 95% CI
- T-test/ ANOVA/ Wilcoxon rank sum test
- Chi-square test/ Fisher's exact test
- Linear regression
- Scientific writing skills

課程目標 Course Objectives

Course description:

- An introduction to the use of statistical analysis in microbiome studies.
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- · Linear regression
- · Scientific writing skills

		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	具備生	命科學相關學科之基礎知識Having the basic knowledge of life science.	•				
В	B 具備邏輯分析與解決問題的能力Having the capabilities of logical analysis and problem solving						
С							
D	具備終	0					
圖示	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	I						
2	2						
ć	3						
4	1						
5	5						
(3						
7	7						
8	3						
()	期中考試週 Midterm Exam					
1	0						
1	1						
1	2						
1	3						
1	4						
1	5						
1	6						
1	7						

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期末考試週 Final Exam

教學策略 Teaching Strategies							
課堂講授 Lecture							
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							
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:							

	學期成績計算	草及多元	.評量方:	弋 Gradi	ng & As	sessmen	ts		
配分項目	配分比例 Percentage	多元評量方式 Assessments							
Items		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)									
期中考成績 Midterm Exam									
期末考成績 Final Exam									
作業成績 Homework and/or Assignments									
其他 Miscellaneous ()									
	Grading & A		量方式 ents Sup			ruction	s		
	41 61 dt di 62 t	4 0 (1. 12 1L		口 小四	٠٠ - ١٠٠ الد	m \		
Textbook & Ot	教科書與參考 her References							ks, etc.)	
	教材網址(含線 .ds & Teacher' Persor	s Websi	ite(Incl	uding c		eaching			
	其他補	充說明	(Supple	mental:	instruct	tions)			