



## 教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	海洋學		學年/學期 Academic Year/Semester	112/1
課程名稱(英文) Course Name in English	Oceanography			
科目代碼 Course Code	MBT_56870	系級 Department & Year	碩士	開課單位 Course-Offering Department
修別 Type	必修 Required	學分數/時間 Credit(s)/Hour(s)	3.0/3.0	
授課教師 Instructor	/劉弼仁/謝泓諺			
先修課程 Prerequisite				
課程描述 Course Description				
<p>廣泛介紹海洋知識，以海洋生物為主，但涵蓋基礎海洋物理、海洋化學、與海洋地質，(並透過校外教學實地了解海洋學，是疫情狀況)。</p> <p>Introduce marine science, focusing on marine biology, but cover basic marine physics, chemistry, and geology.</p> <p>text book: Oceanography: An Invitation to Marine Science 9e The course will start on 9/11 (Monday) 13:00-16:00 Please read the chapter 1 first, there is a test before the course start. (Every week have a test before the course start, so you need to preview the subject each week)</p>				
課程目標 Course Objectives				
<p>圖示說明Illustration : ● 高度相關 Highly correlated ○ 中度相關 Moderately correlated</p>				
授課進度表 Teaching Schedule & Content				
週次Week	內容 Subject/Topics			備註Remarks
1	Introduction			
2	Open ocean- Zooplankton			
3	Climate change and the Ocean - Blue Carbon			
4	Invitation Lecture			
5	Marine microbiology			
6	Open ocean-Phytoplankton			
7	Algal blooms			
8	Marine chemistry			
9	期中考試週 Midterm Exam			
10	Diversity of Marine Vertebrates			
11	Fishery			
12	Typhoons, El Niño and La Niña			

13	Invitation Lecture - Physical oceanography	
14	Climate change and the Ocean - Ocean Acidification	
15	Climate change and the Ocean - Ocean Deoxygenation	
16	Climate change and the Ocean - Ocean Warming	
17	Invitational Lecture - Marine Geology	
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:

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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 General Performance	10%	✓	✓	✓					
期中考成績 Midterm Exam	30%	✓							
期末考成績 Final Exam	30%	✓							
作業成績 Homework and/or Assignments	30%	✓	✓						
其他 Miscellaneous (_____)									

評量方式補充說明

Grading & Assessments Supplemental instructions

每周課前預習測驗、作業、期中考、期末考

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.)

- (1) Oceanography: An Invitation to Marine Science, 9th Edition. by Tom S. Garrison
- (2) 台灣區域海洋學 (二版) 詹森主編

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)