



課 綱 Course Outline

海洋生物研究所碩士班生物多樣性及演化組

中文課程名稱 Course Name in Chinese	海洋學				
英文課程名稱 Course Name in English	Oceanography				
科目代碼 Course Code	MBT_56870	班 別 Degree	碩士班 Master' s		
修別 Type	必修 Required	學分數 Credit(s)	3.0	時 數 Hour(s)	3.0
先修課程 Prerequisite					
課程目標 Course Objectives					
使學生瞭解各種海域常見之污染因子以及海洋動物對汙染物之容忍能力，進一步評估海洋汙染對海洋動物生理上之影響與傷害。					
系教育目標 Dept.' s Education Objectives					
1	研究具有本土特色與國際競爭優勢的海洋生物多樣性及演化課題 Studying the topics of marine biodiversity and evolution with both local and international significance.				
2	培養具備海洋生物多樣性知識與研發能力以及國際觀的專業人才 Training professionals with knowledge, research capability, and global perspective in marine biodiversity.				
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	培養海洋生物多樣性及演化的認知及專業能力。 Professional knowledge and skills in marine biodiversity and evolution research.				
B	具備海洋生態保育及環境保護的概念。 Concepts of conservation of marine ecology and environment.				
C	具備獨立思考邏輯思辨及問題解決能力。 Capability of thinking independently and logically and solving problems.				
圖示說明Illustration : ● 高度相關 Highly correlated ○ 中度相關 Moderately correlated					
課程大綱 Course Outline					

1. Introduction
2. Open ocean- Phytoplankton
3. Algal blooms
4. Open ocean- Zooplankton
5. Open ocean- Fish & mammals
6. Benthic organisms
7. Ocean chemistry- C and N cycles
8. Temperature, salinity, pH and nutrients
9. Ocean acidification
10. 期中考試週Midterm Seminar
11. Circulation of the ocean
12. Waves and tides
13. Typhoons, El Nino and La Nina
14. Ocean basins: Earth structure and plate tectonics
15. Ocean floor topography
16. Invited speaker
17. Invited speaker
18. 期末考試週Final Report

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.)

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

其他
Miscellaneous