②國玄東華大學

課 網 Course Outline

海洋生物研究所博士班

中文課程名稱 Course Name in Chinese	海洋生物技術原理應用特論				
英文課程名稱 Course Name in English	Advanced Topics on Principles and Application of Marine Biotechnology				
科目代碼 Course Code	IMB_70300	班 別 Degree		博士班 Ph. D.	
修別 Type	選修 Elective	學分數 Credit(s)	3. 0	時 數 Hour(s)	3. 0
先修課程 Prerequisite					

課程目標 Course Objectives

學生得以了解生物技術相關實驗原理與儀器操作,並進一步讓學生熟悉如何運用這些現代化生物科技的實驗技術與儀器,可深入認識海洋生物科技之基礎與應用研究,以應用於博士學位之論文研究設計。

	糸專業能力	課程目標與系專業能 力相關性 Correlation
	Basic Learning Outcomes	between Course Objectives and Dept.'s Education Objectives
A	具備海洋科學基礎知識 Basic knowledge of marine science is needed.	
В	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.	
С	具備國際觀與外語專業能力 International vision and professional ability to communicate in foreign languages.	

圖示說明Illustration : ● 高度相關 Highly correlated ○中度相關 Moderately correlated

課程大綱 Course Outline

- 1. Pure Water System and Water Quality Assessment
- 2. 2D Gel Electrophoresis: Workshop
- 3. 2D Gel Electrophoresis: Illustration of the Application for Marine Biology
- 4. 2D Gel Electrophoresis: On-site Practice
- 5. Cryogenic Equipment and Analyzer: Workshop
- 6. Cryogenic Equipment and Analyzer: Illustration of the Application for Marine

Biology

- 7. Cryogenic Equipment and Analyzer: On-site Practice
- 8. Fermentor and Natural Products: Workshop
- 9. Fermentor and Natural Products: Illustration of the Application for Marine Biology
- 10. Fermenter and Natural Products: On-site Practice
- 11. High-performance Liquid Chromatography: Workshop
- 12. High-performance Liquid Chromatography: Illustration of the Application for Marine Biology
- 13. High-performance Liquid Chromatography: On-site Practice
- 14. Nuclear Magnetic Resonance Spectroscopy: Workshop
- 15. Nuclear Magnetic Resonance Spectroscopy: Illustration of the Application for Marine Biology
- 16. Nuclear Magnetic Resonance Spectroscopy: On-site Practice
- 17. Overall Review and Discussion
- 18. 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.)

場地與設備:國立海洋生物博物館提供

師資:本所教師、校外相關專業教授、生物科技公司之工程師

課程要求和教學方式之建議

Course Requirements and Suggested Teaching Methods

課堂講授、小組討論、實驗操作。

其他

Miscellaneous