



水圈學院

College of Hydrosphere Science



水圈學院系所

College of
Hydrosphere Science

目錄

水圈學院水產科技產業博士班
漁業生產與管理系
水產食品科學系
水產養殖系
海洋生物技術系
海洋環境工程系

CONTENT

Ph.D. Program of Aquatic Science and Technology in Industry

General Information of Department of Fisheries
Production and Management

Department of Seafood Science

Department of Aquaculture

Department and Institute of Marine Biotechnology

Department of Marine Environmental Engineering



水圈學院 水產科技產業博士班

■ 系所簡介

本產業博士班為全國「唯一」一所以永續海洋生物資源應用為目標，從海洋生物資源保育及管理、海洋生物生產、加工製造、水產食品精實等全方位整合規劃的研究所；本博士班的設立，主要為培育優質的水產科技產業專業人才，提供我國水產業永續發展所需之精實人才。

本產業博士班規劃水產科技產業專業技能與經營管理之理論、實務課程，配合主題式產業實務實習，強化職場體驗的「產業導向學習」，並透過跨領域平台結合產官學人才組成教學諮議團隊，進行學習成效評核，以印證實務學習成效及建立回饋機制，同時規劃產業實務專家與學校教師共同進行專精實務研究指導，所培育之實用型博士將能緊密鏈結產業需求，提供水產科技產業升級所亟需之尖端實務技術人才。

■ 主修課程

關鍵技術進階課程：包括前瞻海洋生物科技研究法、魚類繁殖專論、海洋創意產品個案研究、食品奈米技術開發、新穎食品加工技術、新產品開發實務、定置網漁業產業價值鏈專論等。

跨領域產學核心課程：包括主題式產業實習、專題討論、水產科技創業營運規劃實務、水產科技產業經營管理與財務規劃、智財申請與撰寫實務、水產科技產業個案研究等。

跨領域產業實踐課程：包括水產創意產品開發實作、水產科技產業管理特論、海洋生技產品創新研發與行銷、水產科技產業市場分析與技術鑑價等。

產業實務專業課程：包括博士論文、水產科技產業個案實例專討等。

■ 就業方面

水產食品產業、漁業公司、水產繁殖場、水產飼料業、生技公司、水產試驗所、水產科技研究及政府單位、水產科技產業高階經理及研發人員、大專校院教師、博士後研究等。

■ 產學合作

本學院目前與多家產業公司已簽訂產學合作備忘錄：包括華偉漁業股份有限公司、順億超低溫冷凍股份有限公司、統一超食代股份有限公司、葡萄王生技股份有限公司、益生生物科技公司、水族同業公會等。

系所資料查詢方式

高雄市楠梓區海專路142號 厚生樓 3樓

電話：07-3617141#23551 / 23552

E-Mail：chs@nkust.edu.tw

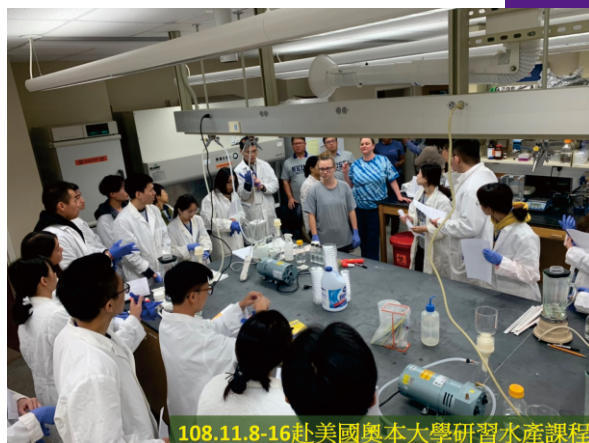


Ph.D. Program of Aquatic Science and Technology in Industry

■ Introduction of Ph.D. Program

The Ph.D. Program of Aquatic Science and Technology in Industry is the only one in Taiwan that aims to apply sustainable utilization of marine biology resources. The Ph.D. program included marine biology resources conservation and management, marine biology production, seafood processing, and seafood improvement. Our goal is to cultivate talents in the related field of Aquatic Science and Technology.

The Ph.D. Program of Aquatic Science and Technology in Industry plans to strengthen the experience of industry-oriented learning of the workplace through performing the theory and practice courses of the professional skills and management of the aquatic technology industry, and cooperates with the industrial theme type practice. In this Ph.D. Program, the teaching consultation committee including industry and government personnel conducted learning effectiveness assessment was involved, to verify the effectiveness of learning and to establish a feedback mechanism. The industry experts and faculties in college cooperate together as instructor for cultivating the practical type of doctors who will become on the cutting-edge of related industry



108.11.8-16赴美國奧本大學研習水產課程

■ Major course

The Key Technology Advanced Course : Foresight Research Methodology of Marine Biotechnology, Topic of Discussion on Fish Breeding and Propagation, The Cases Study of Marine Creative Products, Development of Food Nano-Technology, Novel Food Processing, Novel Product Development Practice, Topic of Discussion on Industrial Value Chain of Set-Net Fishery.

Cross-disciplinary and Industry-Academy Core Course : Industrial Theme Type Internship, Seminar of Special Topics, Operation and Planning Practice of Aquatic Technology Applications to Entrepreneurship, Aquatic Technology Industry Management and Financial Planning, Intellectual Property Application and Writing Practice, Case Studies of Fishery Industry.

Cross-disciplinary and Industry-Academy Practical Course : Experiments in Aquatic Food Development, Management of Aquatic Science and Technology Industry, Innovation Development and Marketing in Marine Biotechnology Product, Fishery Technology Market Analysis and Evaluation.

Industrial Practice Course : Ph. D Thesis, Seminar on Case Studies of Fishery Industry.

■ Employment

Seafood industry, Fishery company, Aquatic breeding farm, Aquatic feed industry, Biotechnology company, Fisheries Research Center, Aquatic technology research and government unit, Senior manager and R&D personnel of aquatic technology industry, College and university faculties, Postdoctoral Research Fellow, etc.

Industry-Academy Cooperation

Our college cooperates with several industry companies with signed memorandum of Industry-Academy Cooperation: Fair Well Fishery Co., Ltd., Soon Yi Superfrozen Co., Ltd., President Chain Store Corporation Co., Ltd., Grape King Bio Co., Ltd., Yeastern Biotech Co., Ltd., and Taiwan Ornamental Fish Association

Contact

TEL:+886-7-361714轉23551
<https://asti.nkust.edu.tw/>



漁業生產與管理系

■ 系所簡介

本系於民國35年成立，創系名稱為「漁撈科」，民國69年配合擴大教育職能與調整課程，系所更名為「漁業科」，民國89年配合學校升格技術學院更名為「漁業系」，民國93年學校改制為科技大學，本系再度更名為「漁業生產與管理系」迄今。

■ 教育目標

本系為我國唯一針對我國漁業產業發展而成立的大學科系，從民國35年創立至今已有74年，辦學經驗豐富且致力於培養學生的漁業實務技能。為配合國際潮流及我國漁業發展，本系之教育目標於民國93年起，將原本培育「開發漁業資源之基層漁撈幹部」的教育目標，積極轉型培育「漁業生產技術、海洋生物資源利用與保育及產業經營管理的漁業人才」，並規劃學生職涯發展分為「漁業幹部船員」、「漁業經營管理人員」、「漁業科技研究人員」及「漁業行政人員」等四大就業領域。各學制之教育目標細分如次：

五專部：培育漁業專業技術與海洋漁業事務及水產貿易等專業人才。

大學部：培育具國際觀之資源永續利用及產業經營管理知識與能力的漁業專業人才。

研究所：著重研究開發與創新能力的訓練，以培育漁業生產技術研究、漁業生物研究漁業資源保育、生產管理及休閒漁業管理等之專業人才。

■ 系所特色

本系是全國唯一針對漁業產業發展而成立之大學科系，且為我國漁業最高技職教育單位。為因應國內外漁業發展趨勢與政府漁業推展政策，本系以培育學生成為「人文與科技相融」、「實務與理論兼備」、「生產與管理並重」，並具有國際觀的漁業專業人才為目標。

■ 就業方向

本系規劃學生職涯發展四大就業領域一覽表。

漁業幹部船員

- ✓ 遠洋漁業船長及幹部船員
- ✓ 沿近海漁業船長及幹部船員
- ✓ 娛樂漁業船長及幹部船員
- ✓ 漁業巡護船幹部船員
- ✓ 漁業訓練船幹部船員

漁業科技研究人員

- ✓ 漁業觀察員
- ✓ 漁業檢查員
- ✓ 港口查報員
- ✓ 漁業科研機構研究人員
- ✓ 海洋科學博物館研究人員
- ✓ 海洋生物博物館研究人員

漁業經營管理人員

- ✓ 遠洋漁業公司管理人員
- ✓ 水產貿易公司管理人員
- ✓ 水產加工公司管理人員
- ✓ 水產冷凍公司管理人員
- ✓ 水產物流公司管理人員

- ✓ 水產餐飲公司管理人員
- ✓ 漁機具公司管理人員
- ✓ 漁業生態及文化導覽解說員

漁業行政人員

- ✓ 海洋委員會行政人員
- ✓ 海洋保育署行政人員
- ✓ 海巡署行政人員
- ✓ 漁業署行政人員
- ✓ 縣市政府漁業行政人員
- ✓ 漁業公會行政人員
- ✓ 漁會行政人員



系所資料查詢方式

電話：+886-7-3617141

<http://dfpm.nkust.edu.tw/DFPM/>



General Information of Department of Fisheries Production and Management

■ Introduction

The Department was established in 1946 with the name "Fishing Division". In 1980 with the expansion of educational functions and adjustment courses, the Department changed its name to "Fisheries Division". In 1990 with the upgrading to the technology college, the department changed to "Fisheries Department". In 2004 was transformed into a university of science and technology, the Department was renamed "Department of Fisheries Production and Management" so far.

■ The Aims of Education

This department is the only one university department established in Taiwan for the development of Taiwan's fishery industry from 1946 since its establishment has been 74 years. The school experience and committed to training students' fishery practical skills. In following with international trends and the development of Taiwan's fisheries, the department's educational objectives will, from 2004 onwards, be cultivated as "the basic fishing cadres for the development of fishery resources", actively transform and cultivate "fishery talents for fisheries production technology, marine living resources utilization, and conservation and industrial management", and plan the development of students' careers as. Fisheries Cadre Crews, Fisheries Management Managers, Fisheries Science and Technology Researchers and Fisheries Executives are among the four major employment areas. The educational objectives of each section are divided as follows:

Five-year junior college program: cultivating professional and technical expertise in fisheries and marine fisheries affairs and aquaculture trade.

University Department program: To cultivate fishery professionals with the knowledge and ability of sustainable utilization of resources from an international perspective and in industrial management.

Institute program: Focus on research and development and innovation ability training, in order to cultivate fisheries production technology research, fisheries biological research fisheries resource conservation, production management and leisure fisheries management professionals.

■ Department Features

This department is the only one department established for the development of fishery industry in Taiwan, and is the highest technical vocational education unit in Taiwan's fisheries. In response to the development trend of domestic and foreign fisheries and the government's fisheries development policy, the Department aims to cultivate fisheries professionals with an international outlook to foster students to become "humanities and science and technology integration", "practical and theoretical integration", "production and management".

■ Career Directions

A list of the four major employment areas for the development of students' careers in this department

Fishery cadre crew

- ✓ Captains and cadres of far sea fisheries
- ✓ Captains and cadres of offshore fisheries
- ✓ Recreation fishery captain and cadre crew
- ✓ Fishermen's patrol officer crew
- ✓ Fisherman training boat cadre crew

Fisheries science and technology researchers

- ✓ Fisheries observer
- ✓ Fisheries inspector
- ✓ Fish Port inspector
- ✓ Researchers in Fishery Research Institutions
- ✓ Marine Science Museum researchers
- ✓ Museum of Marine Biology Researchers

Fishery management personnel

- ✓ Managers of farsea Fisheries
- ✓ Managers of aquatic products trading companies
- ✓ Managers of aquatic processing companies
- ✓ Managers of aquatic refrigeration companies
- ✓ Management of Aquatic Products Company
- ✓ Management of Aquatic Catering Company
- ✓ Managers of fishing equipment companies
- ✓ Fisheries Ecology and Culture Tour Guide

Fishery executive officers

- ✓ Marine Commission Administrator
- ✓ Marine Conservation Administration Administrator
- ✓ Coast Guard Administration
- ✓ Fisheries Agency Administration
- ✓ local government fisheries administrators
- ✓ Fisheries Association executives
- ✓ Fishermen Association executives

Contact

TEL:+886-7-3617141
<http://dfpm.nkust.edu.tw/DFPM/>





NKUST

水產食品科學系

■ 系所簡介

水產食品科學系成立於民國37年，主要在培養國內食品加工、品管檢驗及研究開發之人才，使其能在食品產業界擔任中、高級幹部為目標。目前本系日間部設有四技雙班，進修部四技一班，招收高職之畢業生。碩士班於民國92年成立，碩士在職專班成立於民國97年。本系位居於水產加工重鎮之高雄市，因此本系之人才可以提升食品產業人員之素質，加強生產自動化之技術，促進水產業與食品加工業升級及競爭力。研究所的主要目的在培育高級研發專業人才，可以加速國內食品產業之轉型。

■ 教育目標

- ✓ 培育涵養與學識並重：培養理論與實務並進之食品加工、食品品管、分析檢驗、食品研發、食品產銷及食品生物科技等人才。
- ✓ 採實務導向的課程發展：安排專題製作或校外實習，增強學生實作能力，使課本知識與理論互相呼應，並落實證照取得，幫助學生學以致用。
- ✓ 培養學生能力符合產業需求：以品管、檢驗、研發、產銷管理及生物科技等主軸之課程規劃為主體，配合產業界的需求以及增進學生的能力與興趣，發展與設計符合社會動脈之課程特色。
- ✓ 符合學生通識能力的需求：落實「全人教育」，在課程規劃方面為專業及人文並重，建構良善教師的教學與研究環境及營造適宜學生學習環境，以培養學生兼具人文素養與科技專業知能。
- ✓ 符合國際化需求：加強相關技術之國際知識水平及語文之基本能力，以滿足畢業學生對國際化之需求。

■ 系所特色

本系著重教學、產學研究、服務等三方面，積極整合系內師資與教學研究資源，達成下列重點目標：

- 一、**教學方面**：培育具有國際觀、全人化之海洋產業水產資源之生產管理、加工利用、品管研發等專業知識之海洋科技相關人才，提供國家相關產業發展所需之人力。大學部學生具備專業基礎、語文能力及邏輯思維，研究生具備研究開發與創新能力，使所有本系畢業生具備獨立思考、敬業態度、專業倫理及團隊合作能力。
- 二、**產學研究方面**：發展產業導向之實務性技術研究，協助國家相關產業突破技術瓶頸，提昇國際競爭力。整合本系不同專長教師開發產業所需之技術與產品。
- 三、**服務方面**：協助政府推廣工作、增強從業人員專業技術，提昇經營理念。接受政府委託辦理食品檢驗分析技能檢定等相關檢定考試、食品安全管制系統訓練班、產業之品質衛生檢驗服務以及鼓勵教師參與校內、社區、社會等服務。

■ 就業方向

一、升學：

四技畢業同學：可甄試本系研究所及各大專校院相關研究所，亦可申請到國外研究所留學，繼續攻讀碩士、博士學位。

碩士畢業同學：可甄試國內相關研究所，亦可申請到國外研究所留學繼續攻讀博士學位

二、就業：

1. 食品品管（衛管）檢驗：從事水產食品工廠、水產試驗所、食品加工廠、檢驗機構、品管專員、食品理貨人員、庫務人員、食品技師、食品衛生工作人員、衛生稽查員、衛生環保人員等相關工作。
2. 食品產銷：水產食品工廠、食品加工廠等單位之生產技術工程師、生產線規劃員、生產管理員、生產線作業員、食品業務行銷專員、創意行銷人員、食品物流管理人員等相關工作。
3. 食品及生物科技研發：從事食品發酵工廠、食品加工廠或生物技術公司、保健食品公司、醫院等單位之醫藥研發人員、生技檢測人員、微生物檢驗員、生物科技研發人員、研究助理、生化工程師等相關工作。

系所資料查詢方式

電話：07-3617141 分機 223602

E-MAIL：thoffice01@nkust.edu.tw

<http://seafood.nkust.edu.tw/main.php>



Department of Seafood Science

■ Introduction

The Department was established in 1946 for the education of the middle and high level personnel for food processing, quality assurance, and product development. Currently, there are two classes for each year of four-year regular college and one class for each year of evening school. Totally, there are 12 classes in four-year college program. The main source of student is from the vocational high schools. Master program was established in 2003 and the special program of the Master for professional workers was established in 2008. The Department locates in Kaohsiung City, the biggest harbor and seafood processing center in Taiwan. Thus, the Department collaborates closely with local industry to offer the professional knowledge, enhance automatic processing, elevate the level of food personnel, processing techniques, and competition. The Graduate School is able to offer a higher level of training and professional personnel for research and development.



■ The Aims of Education

- 1. Equally emphasize the practical training and theoretical study:** educate the students with the practical and theoretical talents for the food processing, quality assurance, analyses, development, marketing, and biotechnology.
- 2. Arrange curriculum for practical development:** arrange courses of research topic and extramural practical training to enhance the practical ability of students. In addition, encourage students to obtain professional certificates.
- 3. Educate the professional abilities of students fitting the needs of industry:** training students with the principles of quality assurance, analyses, research and development, management of production and marketing, and biotechnology.
- 4. Cultivate the accomplishment of liberal arts:** design the courses and establish an environment to include the science and liberal arts balance to cultivate students to be a fully developed person.
- 5. Enhance international ability of students:** improve the foreign language ability and international knowledge of students to possess the ability of globalization

■ Department Features

Our department focuses on teaching, research and extension, and service.

- 1. Teaching:** educate the students with international concept, the professional knowledge of aquatic industry for resource management, processing, quality assurance, development and research. College students possess professional knowledge, linguistic abilities, and logic thinking. Graduate students possess the ability of research and innovation. All students possess independent thinking, job devotion, excellent work ethics, and cooperative ability.
- 2. research and extension:** integrate the various expertise of faculties for the practical research to assist industry to break through the technological bottlenecks to elevate international competition.
- 3. serve:** assist government to improve the professional ability of current personnel and management concept. Organize the examinations of professional certificates such as food analysis, HACCP, quality assurance. Department also encourage faculties to volunteer intramural, extramural, and community services.

■ Career Directions

- 1. Academia:** Students can pursuit academic career with the graduate study which in Taiwan or abroad.
- 2. Industry:**
 - Quality assurance and operational personnel in manufacture plants, government institutes, government agencies, audition organizations, testing laboratories.
 - Management of food processing, marketing, and logistics.
 - Research and development in food and biotechnology industry, research institutes.

Contact

Tel: 886-7-3617141#223602
E-MAIL thoffice01@nkust.edu.tw
<http://seafood.nkust.edu.tw/main.php>



水產養殖系

■ 系所簡介

本系(科)創設於民國七十七年，立系(科)於旗津校區，初設專科部五年制水產養殖科日間部一班招生50名，翌年再設立進修部二年制水產養殖科一班。民國七十九年遷系至楠梓校區大信樓二樓，民國八十一年再遷至現址之樂群樓。民國八十二年增設二年制日間部一班。民國八十七年隨學校升格技術學院，改制為水產養殖系，增設二年制技術系日間部一班。民國八十八年起接受僑委會委託開設第廿一期海外青年技術訓練班水產養殖科，主要招收東南亞華僑子弟予以2年之訓練後授予畢(結)業證書。民國八十九年以換班之方式，增設四年制技術系日間部一班，並逐年停招二年制專科部與二年制技術系日間部。民國九十年設進修部四年制技術系，並停招進修部二年制專科部。民國九十二年四年制技術系增班為二班，並停招五年制專科部，民國九十七年成立研究所。

■ 教育目標

為培育具備基本通識及專業能力之高階專業水產技職人才，使學生具有升學與就業的智識和能力，以符合未來需求。培育內容為通識、基礎與實務訓練並重，包括通識、基礎課程、繁、養殖技術、維生系統、養殖環境管理與疾病防治、生物技術知識與應用、經營管理及產銷現況等，使學生擁有涵養人文關懷素養、宏觀視野以及勤儉、積極、敬業的工作態度；具備水產繁、養殖技術專業能力，擁有終身學習所需的智能，以符合企業及未來產業之需求。

■ 發展特色

- (1)以科技應用與研發為主之技職教育。
- (2)種苗繁養殖技術研發及開發新的繁養殖生物種類。
- (3)維生系統之研發與應用，減少水資源之依賴，減輕環境負荷。
- (4)設立海水養殖場，開發海水養殖領域，強化箱網養殖等技術。
- (5)生物技術研發與應用於繁養殖領域，提升水產養殖技術層次。
- (6)生態平衡與疾病診治防治方法之研發，探討養殖環境與疾病防治之關係。
- (7)研發水產養殖物流、行銷與經營方法，因應經營環境變遷，建立水產養殖產銷最佳模式。

■ 學生升學及就業

升學：可報考國內外水產、生物、醫、農等相關研究所。

就業：

產業界-魚介類種苗繁殖、魚介類養殖、水族館、海洋博物館、飼料公司、製藥公司、生技公司、儀器公司、水產機械公司、水產貿易公司及水產相關產業。

政府機關-行政院農業委員會、漁業署、水產試驗所、海洋生物博物館、縣(市)政府漁業課、機場海關、公營企業相關單位。

系所資料查詢方式

電話:+886-73617141轉3702

<http://aqua.nkust.edu.tw/chinese/news.htm>



Department of Aquaculture

■ Introduction

The purposes of setting up this department is to train professional aquaculture technicians and to upgrade Taiwan's aquacultural technology. The goals of our training courses are to produce high class practical technicians of aqua-bio propagation and culture, aquaculture environment management, aquaculture biotechnology, fish nutrition and feed, fish diseases prevention and treatment, aquaculture business management and marketing, etc.



■ The Aims of Education

- 1.To cultivate aquaculture technology specialists with basic knowledge of General Education.
- 2.To equip students with knowledge and the capability for employment and further study, and prepare them to meet the challenges in the future.

The contents for cultivation

General education, basic knowledge, and practical training are all equally emphasized. They also include cultivating technology, introductory courses, quantitative and aquaculture technologies, life support system, management of aquaculture environment, disease prevention and control, biotechnology and applications, business administration and marketing. These will prepare students not only with useful technology of aquaculture, but also with modern applicable knowledge and business management ability. Besides, this Department also cultivates students with environment management and disease prevention and control knowledge, instilling the concept of the co-existence of industry and environment protection.

■ Development Features

- 1.To keep the professional education applied to technology, research and development.
- 2.To promote the techniques of young fish cultivation and quantifying, and to explore new species for cultivation.
- 3.To develop and apply life support system, reduce the dependence on quality water resource and lessen environment pollution.
- 4.To explore sea farming areas, and strengthening box-netting cultivation.
- 5.To enhance and apply biotechnology in the field of marine culture, up grading the level of marine culture techniques and competitiveness.
- 6.To advance methods on ecology balance and disease treatment, prevention and control and study the relationship between farming environment and disease prevention and control.
- 7.To improve methods on aquaculture shipping, marketing and business administration, to be able to sustain through any changes in the business environment and establish an optimal mode on production and marketing for aquaculture.

■ Career Directions

Further education

Pursuing master's or doctoral degrees on aquaculture, biology, medicine or agriculture in local and foreign universities.

Job opportunities

Local and foreign fish breeding farms, aquariums, fish feed factories, environment inspection companies, biotechnology companies, fish marketing companies, central and local government agencies, fish research institutes, national public aquariums, etc.

Contact

TEL:+886-73617141#3702

<http://aqua.nkust.edu.tw/chinese/news.htm>





海洋生物技術系

本系成立於民國九十年，以培養海洋生物技術相關產業所需之人才為宗旨。由於生物技術快速發展，其應用範圍涵蓋了農業、製藥、食品、環保和海洋等產業，已被公認21世紀最具發展潛力的科技。

台灣四面環海，擁有豐富的海洋資源及水產養殖相關產業，但目前因技術的瓶頸，成果受限，所以引進新分子生物技術及應用生物技術來提昇海洋資源也是必須且重要的。

南部地區不僅農業、畜牧業發達，水產業更是本地區重要且具特色的產業。本校擁有最完整的水產相關科系，對於開發海洋所需之人才培育原本即是重鎮，為導入生物技術教育以提昇水產傳統產業技術能力，以發展海洋生物教育為重點，因此成立『海洋生物技術系』。為使本系可以更落實海洋生物技術教學的發展，本系於九十六年成立「海洋生物技術研究所」，提供海洋生物科技關鍵技術教學，並從事海洋生物相關應用性研究，培養海洋生物技術實務性研究人才，應用生物技術來提昇水產資源產業，促進國內水產業之升級，因此最主要發展方向及重點將朝向『以海洋生物為主要研究對象，應用基因工程、酵素學、免疫學、細胞生物學、微生物學與分子生物學技術，開發新海洋生物科技領域』。本系教學研究應用內容主要是培養海洋生物技術之實務性人才，著重於海洋生物品種改良、開發海洋生物分子檢測、海洋天然物開發、酵素工技發展與應用、海洋生物基因轉殖、細胞培養技術、蛋白藥物開發等，培養本系學生成為學有專精之人才，除了著重實務性課程之授課外，並配合校內、外實習培養實務性技術人才。

系所資料查詢方式

電話+886-07-3617141 ext 23802

<http://dmb.nkust.edu.tw/>





Department and Institute of Marine Biotechnology

The Department was established in 2001, with the aim of cultivating professionals needed by marine biotechnology related industries. Because of the rapid development in biotechnology, the applications cover a broad spectrum of agriculture, pharmaceuticals, food processing, environmental protection and marine industries, etc. Biotechnology is acknowledged as having the most developing potential in the 21st century.

Taiwan is surrounded by ocean, with abundant resources and well developed fishery related industries, but due to the lack of advanced techniques, the progress in the exploitation of marine resources is limited. It is essential to introduce and apply modern molecular biotechnology to fully explore marine resources.

Southern Taiwan not only has well developed agriculture and farming, but fishery industry is also an important special regional industry. The university has the most comprehensive fishery-based departments. In order to cultivate specialists for developing marine science, the university established Institute of Marine Biotechnology in 2007. The master program has marine biotechnology as the educational goal and offers advanced biotechnology training to improve the technical performance of the traditional fishery industry.

The research focus on the marine biology, applied genetic engineering, fermentation, immunology, cell biology, microbiology, molecular biology, and other techniques to explore the frontiers of the marine biotechnology. The teaching and research are mainly for the nurturing of practical biotechnology professionals, specializing in marine organism genetic transfer, marine molecular diagnosis, marine natural product discovery, fermentation technology and applications, cell culture technique, pharmaceutical protein development, etc.

In addition to the practical courses, opportunities of practical training outside the campus are also provided to cultivate students becoming practical technologists.

Contact

TEL:+886-07-3617141 ext 23802
<http://dmb.nkust.edu.tw/>





海洋環境工程系

■ 系所簡介

主要為培育具備海洋環境保育概念及海洋環境污染防治、分析、監測、操作及維護等專業技術人才，以擔任海洋及陸地環境保護之實務工作，解決海洋及海岸環境污染問題，增進國人生活環境品質。本系強調整合性案例研究，將理論與實務操作結合，並著重現場採樣技術、實驗室分析及污染事件之緊急應變技能，培育全方位之海洋環境保育高級實務人才。

■ 教育目標

主要為培育具備海洋環境保育概念及海洋環境污染防治、分析、監測、操作及維護等專業技術人才，以擔任海洋及陸地環境保護之實務工作，解決海洋及海岸環境污染問題，增進國人生活環境品質。

■ 系所特色

本系為全國技職院校唯一培育海洋環境工程專業人才之系所。92年成立研究所碩士班，本系強調整合性案例研究，將理論與實務操作結合，並著重現場採樣技術、實驗室分析及污染事件之緊急應變技能，培育全方位之海洋環境保育高級實務人才。

■ 就業方向

可參加國家公職高普考試，如環境工程類、土木工程類，及政府海洋部門考試。亦可至民營代檢驗業、工程顧問公司及各類工廠污染防治等產業任職。

系所資料查詢方式

電話:+886-7-3617141 轉 33751

<http://nkustmee.nkust.edu.tw/main.php>



Department of Marine Environmental Engineering

■ Department Introduction

Department of marine environmental engineering mainly focuses on using all kinds of means to study our marine environments including ocean, coastal area, harbor, estuary, atmosphere and others. And these means include physics, chemistry, biology, geology, environmental engineering and numerical modelling.

■ The Aims of Education

1. Cultivate our students the technical professionals in marine environmental protection, pollution prevention, analysis, testing, modelling, operation and maintenance.
2. Cultivate students to learn communication and coordination skills, teamwork spirit and engineering ethics through thematic production or industry-academia cooperation. Also, to build student's international perspective and multiple thinking qualities.

■ Department Features

The department fosters industrial practices and research talents with cross-discipline equally emphasizing on marine and environmental technology as well as focusing on innovation and practical application capabilities. The programs include:

1. Undergraduate program: there are several major subjects including marine science, marine engineering, environmental science, and environmental engineering. The courses are cross-discipline. Students are comprehensively educated with theory and practice to improve ability in marine environmental technology, which create their future job opportunities to be professional engineers.
2. Graduate program: the courses includes marine science, marine engineering, numerical simulation, environmental science, and environmental engineering practice, providing graduate students with the advanced knowledge of marine and environmental technology either for research or practical work

■ Career Directions

Potential career paths: Graduates may sit for junior and senior civil service examinations in environmental engineering, civil engineering and for the Ocean Affairs Council. They may also seek employment in private sector inspection, engineering consulting and factory pollution prevention industries.

Contact

TEL: +886-7-3617141 # 33751
<http://nkustmee.nkust.edu.tw/main.php>

