

Green Energy Special Class
專班名稱: 綠能科技專班

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| Degree 學位 | 2-Year Post-Baccalaureate Degree/學士後二年制學士專班 |
| College 學院 | College of Engineering/工程學院 |
| Department 學系 | Department of Environmental Engineering/環境工程系 |
| Begin Term 開始學期 | Autumn Semester (Enroll in September) /秋季(9月入學) |
| Introduction Language 授課語言 | Course taught in English/英文授課 |
| Language Proficiency 語言能力 | <p>English proficiency certificate/ proof required</p> <ul style="list-style-type: none"> ● Above CEFR B1 <p>Chinese proficiency certificate/ proof required</p> <ul style="list-style-type: none"> ● Listening and reading at least level A2 in second year. <p>英文能力</p> <ul style="list-style-type: none"> ● 須達 CEFR B1 級(含)以上 <p>入學第2年華語文能力測驗(TOCFL) 基礎級(Level 2, 相當於 CEFR A2)聽、讀2項皆須達 A2 級(含)以上</p> |
| Application Documents 申請文件 | <ol style="list-style-type: none"> 1. Application form 2. Personal information collection statement and agreement. 3. The highest-level degree diploma and highest degree's full transcript of records. 4. Language Proficiency Certificate (Certificate of TOEIC 650 or above CEFR B1) 5. One photocopy of complete highest degree transcript 6. Photocopy of passport (if available) 7. Other advantageous documents. (for example: Language ability certificates, autobiography in Chinese or English, certificates of examinations, awards etc.) <ol style="list-style-type: none"> 1. 入學申請表正本 1 份 2. 個人資料蒐集聲明暨同意書 3. 外國學校最高學歷及成績單影本(中、英文以外之語言, 應附中文或英文譯本) 4. 語文能力證明文件(多益 650 分或相當於 CEFR B1 等級以上之英文能力證明) 5. 經認證之英文成績單 6. 申請人護照影本 1 份。 <p>其他有利之審查資料。(如: 語文證明、中文或英文自傳、證照、獎狀...等)</p> |

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| <p>Interview/ Oral Exam 面試/口語 考試</p> | <p>Interview with Collaborating Companies 面試(與合作企業)</p> |
| <p>Written Exam 筆試</p> | <p>None 無</p> |
| <p>Additional Notes 補充說明</p> | <p>Obligations</p> <ol style="list-style-type: none"> 1. Students receiving industry-academia scholarships from the National Development Fund, Taiwan are obligated to stay and work in Taiwan for a corresponding period based on the number of years they received the scholarship. 2. Those receiving a one-year industry-academia scholarship have a one-year obligation to stay and work in Taiwan, while those receiving a two-year industry-academia scholarship have a two-year obligation to stay and work in Taiwan. <p>領取獎學金義務 學生領取國發基金產學獎助金的學生，依據領取年限具有相應留臺就業年限的義務。 領取 1 年產學獎助金者，具有 1 年留臺就業義務，領取 2 年產學獎助金者，具有 2 年留臺就業義務。</p> <p>***Note: If the circumstances are under student control, requirement for repayment: If students withdraws from the program midway during the academic term due to personal reasons, such as applying for transfer to another program, changing majors, taking a leave of absence, or returning to their home country, and after counseling from the school, still decides to give up continuing in the program, or if the school, in accordance with its regulations, decides to withdraw or expel the student, the student is required to full repay any industry-academia scholarship funds received.</p> <p>If a student chooses not to work for the collaborating company or in a related industry field after graduation, and despite counseling from the school, the student is required to fully repay any industry-academia scholarship funds received.</p> <p>If a student, after graduating and entering employment, violates company regulations leading to the lawful termination of the employment contract, and despite counseling from the school, the student should repay the industry-academia scholarship funds proportionally based on the number of months not employed; for a period less than one month, it will be counted as one month.</p> <p>During the period of fulfilling the employment obligation after graduation, students are required to work in a position within domestic collaborating companies in Taiwan. They are not allowed to be dispatched to work at overseas branches or be employed by overseas Taiwanese-owned companies. If a student fails to comply with the requirement of domestic employment, they should repay the industry-academia scholarship funds proportionally based on the number of months not employed in Taiwan; for a period less than one month, it will be counted as one month.</p> <p>***屬可歸責於學生之原因，應繳還產學獎助金：</p> |

就學期間因個人因素中途退出專班，如申請轉學、轉系、休學返國，經學校輔導後仍放棄繼續就讀專班、或經學校依學則退學、開除學籍等情形，學生應全額返還已領之產學獎助金。

學生學習表現不佳，未通過學校及企業評核標準，並經學校輔導後仍無改善且依學則處以退學、開除學籍等情形，學生應全額返還已領之產學獎助金。

學生畢業後選擇不至合作企業或相關產業領域就業，並經學校輔導後仍無改善者，學生應全額返還已領之產學獎助金。

學生畢業就業後違反公司規定被依法終止勞動契約，並經學校輔導後仍無改善者，學生應依未就業之月數比例返還產學獎助金；不滿一月者，以一月計。

學生於合作企業就業期間未滿受領產學獎助金年限：應依其未就業之月數比例繳還產學獎助金；不滿一月者，以一月計。

***學生畢業後履行就業義務期間，應留臺於國內合作企業任職，不得由合作企業外派至國外分公司任職，或任職於海外臺商企業。如有前述未於國內就業情形，應依未於國內就業之月數比例返還已領之產學獎助金；不滿一月者，以一月計。

Scholarship 獎學金

1. Administrative fees for arrival in Taiwan: One-time subsidy covering pre-arrival health check expense, visa fees, and document verification fees. The maximum amount is NTD\$10,000.
2. One-way flight ticket: One-time subsidy, the airfare is verified based on the economy class one-way ticket for the most direct route to Taiwan. The maximum amount is NTD\$9,000.
3. National Development Fund Scholarship: A maximum of two years of tuition and miscellaneous fee subsidies will be provided.
4. Subsidies are provided based on the actual tuition and fees payable to the school, with annual cap of NTD100,000 and a semester cap of NTD\$50,000.
5. Full tuition fee subsidies are provided in the first year, and the second year tuition fee subsidies are provided based on the merit after reviewing grades and performance in collaboration with the school, and also pass the Chinese proficiency test-listening and reading at least at level A2.
6. Collaboration company provide students with a monthly living allowance NTD\$10,000 during their study period up to 2 years.

1. 初次來臺的相關必要行政費用：採一次性補助，包含來臺前的健康檢查費用、簽證費用及文書驗證費用，以地區分列補助上限為：新南向區域國家及其他國家上限新臺幣 1 萬元、歐美區域國家上限 2 萬 5,000 元(核實報支)。
2. 來臺單程機票：採一次性補助，機票費用以來臺最直接航程之經濟艙單程機票核實請領，新南向區域國家上限為 9,000 元、歐美區域國家上限 3 萬 5,000 元(核實報支)。學校應請學生檢據核銷，並以收據開立當日之臺灣銀行美金對新臺幣匯率計算。
3. 國發基金補助註冊入學後最多 2 年的學雜費：
4. 依學生實際應繳交給學校的學雜費給予補助，每年補助上限 10 萬元（一學期上限為 5 萬元）。
5. 學生入學第一年給予學雜費補助，第二年聽、讀 2 項皆須達 A2 級(含)以上，且需通過學校與合作企業審查成績與表現後，擇優核給學雜費補助。
7. 合作企業提供每個月一萬元獎學金（至多兩年，共計 24 萬元）。

Introduction of the Program
本專班介紹及專班特色

Due to the decreasing domestic newborn population and the demand for mid-to-high-level technical talents by the cooperative Green Shepherd company. This special class has expanded its enrollment of Filipino students, attracting outstanding international students from the Philippines to study in Taiwan and stay in Taiwan after graduation. .

Green Shepherd company provides the service of integrating various renewable energy systems. Its service base is located in Southern Taiwan and Southeast Asia. Its products include solar power generation system, biogas power generation system, heat pump sludge dryer, multifunctional energy storage system and etc. We hope to recruit Filipino students with English as the official language through this special class. After two years of practical learning in green energy domain (learning Chinese language and professional practical courses at school in the first year, and internship at Green Shepherd local base in Taiwan and overseas base in the second year). The students will get a job in Taiwan after graduation from this special class, and the opportunity of being assigned to overseas base. This special class is aimed at cultivating talents in the international for Taiwan green energy industry.

本專班因應國內少子女化、合作企業牧陽能控股份有限公司對中高階技術人才需求及強化國內人力結構，擴大招收菲律賓國籍學生，吸引菲律賓優秀的國際生來臺就學，並於畢業後留合作企業發展就業，引入優質人才。合作企業牧陽能控股份有限公司提供再生能源系統整合服務，以南台灣與東南亞為服務據點，主要產品包含太陽能發電系統、沼氣發電系統、熱泵污泥乾燥機、多功能儲能系統等，相關產品與服務已擴及海外。期許經由本專班招收以英語為官方語言的菲律賓國籍學生，歷經本班兩年的綠能實務學習（一年級在學校修習華語與專業實務課程、二年級在合作企業的台灣與海外場域實習為主），畢業後留台或外派至海外據點工作。本專班目標為台灣合作企業培育綠能國際產業人才。

Curriculum Planning
課程規劃

1. Number of credits required for graduation of this special class
 - (1) Number of credits for graduation: 48 credits in total, including 22 credits of compulsory courses (10 credits of off-campus internships) and 26 credits of elective courses (4 credits of off-campus internships)
 - (2) Years of study: 2 years (including 1 year of on-campus courses and 1 year of off-campus internship)

(一) 專班之畢業應修學分數

1. 畢業學分數：共48學分，含必修22學分(其中校外實習占10學分)、選修26學分(其中校外實習占4學分)

2. 修業年限

2年(含校內課程1年、校外實習1年)

(一) Course planning table 課程規劃表

| Course name 課程名稱 | Course Outline 課程綱要 | Teach hours per week 授課時數 | Required or Elective Course 必修 | Number of credits 學分數 | Teaching grade 授課年級 |
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| | <p>Situational Chinese(I) - Waystage Level 實用生活華語 -基礎級(一)</p> | <p>1. Focus on practical vocabulary in daily life. Improve learners' ability to apply in real situations) 2. Eight major themes: personal information and family, daily life, shopping and business behavior, food and culture, living and environment, leisure and entertainment, travel and transportation, and lifestyle</p> <p>1. 著重生活實用詞彙，提升學習者對於真實情境的理解能力與應用能力。 2. 八大主題:個人資料與家庭、日常生活、購物與商業行為、飲食與文化、居住與環境、休閒與娛樂、旅行與交通、生活時尚。(.)</p> | 3 | Required Course 必 | 3 | 1 st semester of 1 st grade 一上 |
| | <p>Chinese for Workplace Waystage Level 職場溝通華語 -基礎級</p> | <p>1. (Focus on practical vocabulary in workplace. Improve learners' ability to apply in real situations) 2. Topic: Who are you - self-introduction, what do you want to do - work content, overtime, ask for leave, company regulations, temporary situations, worshipping</p> <p>1. 著重職場實用詞彙，提升學習者對於真實情境的理解能力與應用能力。 2. 主題:你是誰-自我介紹、你要做什麼-工作內容、加班、請假、公司規定、臨時狀況、拜土地公、吃尾牙。</p> | 3 | Required Course 必 | 3 | 1 st semester of 1 st grade 一上 |
| | <p>Seminar (I) 專題研究(一)</p> | <p>In order to instruct students familiar with the working place and operation types,</p> | 4 | Elective Course 選 | 2 | 1 st semester of 1 st |

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| | <p>this course combines professional knowledge of environmental engineering with practical skills for providing professional practice training.</p> <p>引導學生熟悉合作廠商工作場域與作業型態，讓學生將環境工程專業知識與實務技能結合，進行專業實務訓練。</p> | | | | grade 一上 |
| Experiments of Environmental Microbiology 環境微生物學及實驗 | <p>This course introduces the concept of microorganism and its role in the environment to enable students understanding the effect of microorganism and the proposal of contamination cleanup.</p> <p>本課程介紹微生物基本概念及其在環境之角色，讓學生瞭解微生物之影響，及提出解決污染之建議。</p> | 3 | Elective Course 選 | 3 | 1 st semester of 1 st grade 一上 |
| Environmental monitoring and intelligent management 環境監測與智能管理 | <p>This course introduces monitoring knowledge, including sampling, analysis method and data quality to enable students understanding the application of AIOT system on environmental monitoring.</p> <p>本課程介紹環境監測知識包括採樣、分析方法與品質管理，讓學生瞭解智能系統在環境監測的運用。</p> | 3 | Elective Course 選 | 3 | 1 st semester of 1 st grade 一上 |
| Soil pollution and remediation 土壤污染與整治 | <p>This course introduces soil physic-chemical characteristics and pollution sources to enable students understanding the function of pollutant in soil matrix and the proposal of soil pollution cleanup.</p> | 3 | Elective Course 選 | 3 | 1 st semester of 1 st grade 一上 |

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| | 本課程介紹土壤物理化學特性、污染物來源，瞭解污染物於土壤介質中的作用，及提出土壤污染之整治方式。 | | | | |
| Introduction of Energy 能源概論 | This course introduces green energy types, their application and importance in the environment to enable students capable of linking the energy problems to the environment. 本課程介紹各種綠色能源的形式與應用，及其在環境的重要性，讓學生將能源問題融入於環境工程。 | 2 | Elective Course 選 | 2 | 1 st semester of 1 st grade 一上 |
| Situational Chinese(II) - Waystage Level 實用生活華語 -基礎級(二) | 1. Focus on practical vocabulary for daily life. Improve learners' ability to apply in real situations 2. Eight major themes: education and learning, health and physical care, interpersonal relationships, work and society, technology and innovation, festivals and customs, history and humanities, geography and international perspective. 1. 著重生活實用詞彙，提升學習者對於真實情境的理解能力與應用能力。 2. 八大主題:教育與學習、健康與身體照護、人際關係、工作與社會、科技與創新、節慶與習俗、歷史與人文、地理與國際眺望。 | 3 | Required Course 必 | 3 | 2nd semester of 1st grade 一下 |
| Chinese Listening and Reading Comprehension | 1. Chinese language proficiency test: 1000 words in basic level 2. Strengthen grammar and review a thousand words | 3 | Required Course 必 | 3 | 2nd semester of 1st grade |

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| <p>-Level 2 華語文能力測驗聽力閱讀-基礎級</p> | <p>at the same time. Simulate the test to familiarize with the test method</p> <p>3. Ten major themes: personal information, house and family, environment, daily life, leisure and entertainment, food, relationships with others, health and physical care, travel, shopping, education</p> <p>1. 華語文能力測驗基礎級1000詞。 2. 加強語法，同時練習與複習一千詞，模擬測驗使學生熟悉測驗方式。 3. 3.十大主題: 個人資料、房屋與家庭、環境，日常生活、休閒娛樂、飲食、與他人關係、健康及身體照顧、旅行、購物、教育。</p> | | | | <p>2nd semester of 1st grade 一下</p> |
| <p>Seminar (II) 專題研究(二)</p> | <p>In order to instruct students familiar with the working place and operation types, this course combines professional knowledge of environmental engineering with practical skills for providing professional practice training.</p> <p>引導學生熟悉合作廠商工作場域與作業型態，讓學生將環境工程專業知識與實務技能結合，進行專業實務訓練。</p> | 4 | <p>Elective Course 選</p> | 2 | <p>2nd semester of 1st grade 一下</p> |
| <p>Water Analysis 水質分析</p> | <p>This course introduces the principle, procedure and applicability of water quality analysis methods to enable students capable of conducting water quality analysis, handling analytical data and interpreting</p> | 3 | <p>Elective Course 選</p> | 3 | <p>2nd semester of 1st grade 一下</p> |

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| | <p>analytical result.</p> <p>本課程介紹水質分析方法之原理，步驟與適用性，讓學生具有分析水質之實驗能力，能處理與分析數據，並能判讀分析結果。</p> | | | | |
| <p>Environmental Impact Assessment</p> <p>環境影響評估</p> | <p>This course introduces the concept of Environment Impact Assessment as well as the guidelines of EIA review to enable students capable of inquiring and compiling materials as well as familiar with the EIA technology.</p> <p>本課程介紹環境影響評估基本觀念與審議規範，讓學生能熟知環境影響評估相關技術，並具有資料查詢彙整能力。</p> | 3 | <p>Elective Course</p> <p>選</p> | 3 | <p>2nd semester of 1st grade</p> <p>一下</p> |
| <p>Management of Green House Gases</p> <p>溫室氣體管理</p> | <p>This course introduces the international trend of Climate Change and GHG reduction issues to enable students capable of implementing GHG inventory and management.</p> <p>本課程介紹氣候變遷與溫室氣體減量議題之國際發展趨勢，讓學生具備盤查及管理組織內溫室氣體之基本技能。</p> | 3 | <p>Elective Course</p> <p>選</p> | 3 | <p>2nd semester of 1st grade</p> <p>一下</p> |
| <p>Introduction of Circular Economy</p> <p>循環經濟概論</p> | <p>This course introduces the concept, principle and methodology of Circular Economy to enable students understanding the novel circular economy technology originate from reduction, reuse and resource of waste.</p> <p>本課程介紹循環經濟的基本理念、原則和方法，讓學生瞭解將廢棄物“減量化、再利用、資源化”融合為循環經濟創新技術。</p> | 2 | <p>Elective Course</p> <p>選</p> | 2 | <p>2nd semester of 1st grade</p> <p>一下</p> |

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| | Internship(I) 企業實習(一) | Internship in Taiwan to implement professional practice training according to the constraint of Green Shepherd Company. 依合作廠商要求，進行專業實務訓練 | 40 | Required Course 必 | 5 | 1st semester of 2nd grade 二上 |
| | Internship(II) 企業實習(二) | Internship in Taiwan to implement professional practice training according to the constraint of Green Shepherd Company. 依合作廠商要求，進行專業實務訓練 | 40 | Required Course 必 | 5 | 2nd semester of 2nd grade 二下 |
| 未來的遠景 Future map | <p>Students should work in Taiwan after graduation for at least 2 years in a collaborating company. ***Collaborating Companies Green Shepherd Company (System Maintenance Engineer/ 15 staff; Energy Technology Project Spare Manager/ 5 staff)</p> <p>本所畢業生需進入合作企業在台工作至少兩年。 ***合作企業: 牧陽能控股份有限公司 (系統維運工程師 15 個職位；能源科技專案儲備幹部 5 個職位)</p> | | | | | |
| 網站連結 Website | 報名網站： https://intactbase.ksu.edu.tw/ | | | | | |
| 專班聯繫人 Contact | <p>Department: Department of Environmental Engineering Name: Wu, Ting-Nien Tel.: 06-2050524 Fax: 06-2050540 Email: wutn@mail.ksu.edu.tw</p> <p>單位: 環境工程系 姓名: 吳庭年 電話: 06-2050524 傳真: 06-2050540 Email: wutn@mail.ksu.edu.tw</p> | | | | | |