KUN SHAN UNIVERSITY

Mechatronics Engineering Master's Program 專班名稱: 機電整合工程碩士專班	
Degree 學位	Master's Degree /碩士學位
College 學院	College of Engineering/工程學院
Department 學系	Institute of Electrical Engineering /電機工程研究所
Begin Term 開始學期	2025 Fall Semester (Enroll in September) /秋季(9 月入學)
Introduction Language 授課語言	Course taught in English/英文授課
Nationality of admission 招生國籍	Philippines/菲律賓
Language Proficiency 語言能力	English proficiency certificate/ proof required ● Above CEFR B1 Chinese proficiency certificate/ proof required ● Listening and reading at least level A2 in second year. 英文能力 ● 須達 CEFR B1 級(含)以上 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
Application Documents 申請文件	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 550 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.) 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 550 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。 7. 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)

Interview/ Oral Exam 面試/口語考試	Interview with Collaborating Companies 面試(與合作企業)
Written Exam 筆試	None 無
Additional Notes 補充說明	**Obligations for Receiving Scholarship:** 1. Students who receive the Industrial-Academic Scholarship from the National Development Fund of Taiwan are obligated to work in Taiwan for a duration equivalent to the number of years they received the scholarship. 2. For students who received the scholarship for 1 year, there is a 1-year obligation to work in Taiwan. For those who received the scholarship for 2 years, there is a 2-year obligation to work in Taiwan. 領取獎學金義務 1. 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。 2. 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。 **Repayment of Industrial-Academic Scholarship Due to Attributable Reasons:** 1. If a student discontinues the specialized program due to personal reasons during the period of study (such as transferring to another school or department, taking a leave of absence to return home), and if they withdraw from the program despite counseling from the school, or if they are dismissed or expelled due to school regulations, they must repay the full amount of the scholarship received. 2. If a student's performance fails to meet the standards of both the school and the partnering enterprise, and after counseling, they still fail to improve and are dismissed or expelled according to school regulations, they must repay the full amount of the scholarship received. 3. If a student chooses not to work in the partnering enterprise or a related industry field upon graduation and does not improve after counseling, they must repay the full amount of the scholarship received. 4. If a student, after beginning employment, violates company regulations and is lawfully terminated, and does not improve after counseling, they must repay the scholarship in proportion to the remaining months of the employment obligation; any incomplete month will be rounded up to a full month. 5. If a student leaves the partnering enterprise before completing the employment period equivalent to the scholarship duration, they must repay the scholarship in proportion to the remaining months; any incomplete month will be rounded up to a full month. **Employment Obligations During the Post-Graduation Period:** 1. During the period of post-graduation employment obligation, students must work domestically at the partnering enterprise in Taiwan. They are not permitted to be assigned by the partnering enterprise to an overseas branch or to work for overseas Taiwanese businesses. If a student is not employed domestically as required, they must repay the scholarship in proportion to the number of months they fail to work in Taiwan; any incomplete month will be rounded up to a full month. ***屬可歸責於學生之原因，應繳還產學獎助金： 1. 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。 2. 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。 3. 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。 4. 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。 5. 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. **Initial Necessary Administrative Expenses for First-Time Arrival in Taiwan:** One-time subsidy covering the costs of pre-arrival medical examination, visa fees, and document verification fees. The subsidy limits by region are as follows: • New Southbound countries and other countries: up to NTD 10,000. • Europe and the Americas: up to NTD 25,000 (reimbursed based on actual expenses). 2. **One-Way Airfare to Taiwan:** One-time subsidy based on the cost of an economy-class one-way ticket for the most direct route to Taiwan. • New Southbound countries: up to NTD 9,000. • Europe and the Americas: up to NTD 35,000 (reimbursed based on actual expenses). The school should ask students to submit receipts for verification, and the exchange rate used should be based on the Taiwan Bank's USD to NTD rate on the date the receipt is issued. 3. **National Development Fund Subsidy for Up to 2 Years of Tuition and Miscellaneous Fees Post-Enrollment:** (1) Subsidy covers actual tuition and miscellaneous fees that the student is required to pay to the school, with an annual cap of NTD 100,000 (NTD 50,000 per semester). (2) Tuition and fee subsidies are provided in the first year of enrollment. In the second year, students must achieve at least level A2 in listening and reading and must pass performance evaluations by the school and cooperating enterprise to qualify for the tuition fee subsidy. 4. **Scholarship from the Partnering Enterprise:** The partnering enterprise provides a scholarship of NTD 10,000 per month (up to a maximum of 2 years, totaling NTD 240,000). 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： (1)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）。 (2)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。 4. 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	This specialized program is designed to meet the needs of our partner, Dyma Advance Technology Co., Ltd., for high-level technical talents in mechatronics and to strengthen the domestic human resource structure. We have expanded the recruitment of students with Filipino nationality to attract outstanding international students from the Philippines to study in Taiwan and stay in our partner companies to develop employment after graduation. This special class is designed to meet the needs of our country's population policy and Taiwan's industrial layout, and to meet the urgent needs of domestic industry sustainable transformation, technology upgrading, and talents in the semiconductor field. This special class is guided by the employment needs of enterprises and recruits international students to study in Taiwan. Enterprises participate in the entire process of admissions, selection, course teaching, and internship training, etc., to expand the training of technical talents in the semiconductor field and achieve the goal of jointly cultivating and retaining talents. 本專班因應合作企業恩茂科技股份有限公司對於機電整合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，配合我國人口政策需求與臺灣產業布局，並對應國內產業永續轉型 技術升級及半導體領域人才需求迫切，故開設本專班。 本專班以企業用人需求為導向，招收國際學生來臺就學，企業全程參與招生選才、課程教學及實習培育等，擴大培育半導體領域技術人才，達到共同培育人才及留用人才的目標。
Curriculum Planning 課程規劃	**(一)專班之畢業應修學分數** 1. 畢業學分數：共44學分，含必修38學分(其中校外實習占10學分)、選修6學分(其中校外實習占0學分)。 2. 修業年限2年(含校內課程1年、校外實習1年) **(1) Graduation Credit Requirements for the Program** 1. **Total Graduation Credits:** 44 credits in total, including 38 required credits (with 10 credits from off-campus internships) and 6 elective credits (with 0 credits from off-campus internships). 2. **Program Duration:** 2 years (including 1 year of on-campus courses and 1 year of off-campus internships). **(二)課程規劃表((含校外實習，無則免列)** **(2) Course Plan (including off-campus internships, if applicable)**

Course Title 課程名稱	Course Outline 課程綱要	Teaching hours per week 授課時數	Required/ Elective 必選修	Credits 學分數	Grade Level 授課年級
實用生活華語-基礎級(一) Situational Chinese (I) - Waystage Level	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。 1. Emphasizes practical vocabulary for daily life, enhancing learners' understanding and application abilities in real-world situations.	3	必/ Required	3	一上 First Year, First Semester

	2. Eight major themes: personal information and family, daily life, shopping and business activities, food and culture, living and environment, leisure and entertainment, travel and transportation, lifestyle trends.				
職場溝通華語-基礎級 Chinese for Workplace - Waystage Level	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。 1. Focuses on practical workplace vocabulary, boosting learners' comprehension and application skills in authentic situations. 2. Themes: Self-introduction, work tasks, overtime, taking leaves, company policies, emergency situations, worshiping the Earth God, and year-end parties.	3	必/ Required	3	一上 First Year, First Semester
可程式控制器應用 Programmable controller application	1.本課程讓學生了解可程式控制器之基礎理論與觀念，並培養學生解決自動化控制系統相關設計問題之基本能力。 2. 學習應用可程式控制器技術於自動化控制系統設計範例中，並採用實務模擬方式教學。 1. This course allows students to understand the basic theories and concepts of programmable controllers and cultivates students' basic ability to solve design problems related to automatic control systems. 2. Learn to apply programmable controller technology in automated control system design examples, and use practical simulation teaching methods.	3	必/ Required	3	一上 First Year, First Semester
專題討論(一) Seminar Ⅰ	藉由分組討論專題主題讓學生了解機電整合工程相關的的應用。 Through group discussions on special topics, students can	2	必/ Required	2	一上 First Year, First Semester

	understand the applications related to mechatronics engineering.				
半導體製程技術 Semiconductor process technology	1.了解各種半導體製程技術的基本步驟。 2. 學習如何設計和優化半導體元件的製程，以提高性能和降低成本。 3. 了解半導體產業的發展趨勢及市場需求。 1. Understand the basic steps of various semiconductor process technologies. 2. Learn how to design and optimize the manufacturing processes of semiconductor components to improve performance and reduce costs. 3. Understand the development trends and market demands of the semiconductor industry.	3	選 / Elective	3	一上 First Year, First Semester
實用生活華語-基礎級(二) Situational Chinese (II) - Waystage Level	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。 1. Focuses on practical vocabulary for daily life, enhancing learners' understanding and application skills in real-world scenarios. 2. Eight major themes: education and learning, health and personal care, interpersonal relationships, work and society, technology and innovation, festivals and customs, history and culture, geography and global perspectives.	3	必	3	一下
華語文能力測驗聽力閱讀-基礎級 Chinese Listening and Reading Comprehension - Level 2	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。 3.十大主題: 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。 1. Chinese Language Proficiency Test Basic Level 1000 Words. 2. Strengthen grammar, practice and review a thousand words simultaneously, mock exams to familiarize students with the test format. 3. Ten major themes: personal information, housing and family, environment, daily life, leisure and	3	必/ Required	3	一下 First Year, Second Semester

	entertainment, food and dining, relationships with others, health and personal care, travel, shopping, education.				
機電整合實務 Mechatronics practice	1. 建立學生機電整合之基礎理論與觀念，並培養同學解決各類機電整合系統相關設計問題之基本能力。 2. 學習應用機電整合技術於半導體自動化系統設計範例中，並採用實務模擬方式教學。 1. To establish students' basic theories and concepts of mechatronics, and to cultivate students' basic ability to solve various design problems related to mechatronics systems. . 2. Learn to apply mechatronics technology to semiconductor automation system design examples, and use practical simulation teaching methods.	3	必/ Required	3	一下 First Year, Second Semester
專題討論(二) Seminar Ⅱ	藉由分組討論專題主題讓學生了解機電整合工程相關的的應用。 Through group discussions on special topics, students can understand the applications related to mechatronics engineering.	2	必/ Required	2	一下 First Year, Second Semester
半導體設備與檢測 Semiconductor equipment and detection	1. 了解各類半導體製造設備的工作原理及其功能。 2. 掌握半導體元件及製程的各種檢測技術，包括電性測試、光學檢測等。 3. 學習如何操作和維護半導體製造設備，確保其正常運行。並培養分析檢測數據的能力，解讀測試結果並進行故障診斷。 1. Understand how various types of semiconductor manufacturing equipment work and their functions. 2. Master various testing technologies for semiconductor components and processes, including electrical testing, optical testing, etc. 3. Learn how to operate and maintain semiconductor manufacturing equipment to ensure it operates properly. And develop the ability to analyze test data, interpret test results and perform fault diagnosis.	3	選/ Elective	3	一下 First Year, Second Semester
企業實習(一) Corporate Internship I	依合作廠商要求，進行專業實務訓練。 Conduct professional practical training according to the requirements of cooperating	40	必/ Required	5	二上 Second Year, First Semester

	companies.				
企業實習(二) Corporate Internship II	依合作廠商要求，進行專業實務訓練。 Conduct professional practical training according to the requirements of cooperating companies.	40	必/ Required	5	二下 Second Year, Second Semester
論文 Thesis	本課程能使學生學習規劃碩士畢業論文主題並撰寫研究論文 This course enables students to learn to plan a master's thesis topic and write a research paper	0	必/ Required	6	二下 Second Year, Second Semester

未來的遠景 Future map	Graduates from this program are required to work in Taiwan at a partnering enterprise for at least two years. 本所畢業生需進入合作企業在台工作至少兩年。 *** Partnering Enterprise 合作企業: Marketech lnternational Corp. (https://www.micb2b.com/) (10 positions) 帆宣系統科技股份有限公司(https://www.micb2b.com/) (10 個職位)
網站連結 Website	報名網站 Application Website：https://intactbase.ksu.edu.tw/ Kun Shan University webside: https://eng-web.ksu.edu.tw/DAIO000/page/59885 Dyma website: https://www.micb2b.com/
專班聯繫人 Contact	Department: Department of Electrical Engineering Name: Wu, Ming-Fang Tel.: +886-6-2050518 Email: wumifa@mail.ksu.edu.tw 單位：電機工程系 姓名: 吳明芳 電話: +886-6-2050518 Email: wumifa@mail.ksu.edu.tw