

Building and Construction Technology Program, TSUST

1. **Program title:** Building and Construction Technology Program, Master's degree program, taught in English.

2. **Program Features:**
 - (1) In response to the decreasing workforce in the construction and building industry due to a declining birth rate, we integrate relevant technologies to cultivate talent, aiming to train International students who have already obtained a bachelor's degree.

 - (2) The duration of study is two years, belonging to a Master's degree program for International Students. The second year includes an off-campus internship, and graduation requires completing at least 36 credits. Before the second year, passing the Test of Chinese as a Foreign Language (TOCFL) at the A2 elementary level is required.

 - (3) The curriculum integrates industry trends and the requirements of collaborating companies to plan professional practical courses, aiming to cultivate students with architectural engineering expertise in design and construction techniques.

 - (4) Collaborating companies provide internship opportunities in related fields such as course design, collaborative teaching with industry experts, practical training venues, and internship positions for civil engineers and architectural design assistants. These companies include Aoer Interior Decoration Design Engineering Co., Ltd. and TSG Engineering Corporation.

3. **Institution:** Taiwan Steel University of Science and Technology/The Department of Architecture/Master's degree program / Spring semester 2025

4. **Curriculum Guideline:** Including course language, curriculum content (university curriculum and internship)
 - (1) Courses Language: Taught in English.

 - (2) Curriculum Content:

First Year		Second Year	
First Semester	Second Semester	First Semester	Second Semester
Required Course: 34 Credits (Credits-Course hours)			
Architectural Investigation and Analysis	Research Methods and Thesis Writing	Internship 6-20	Internship 6-20
Elective Course: Minimum 6 Credits (Credits-Course hours)			
Construction Project Management 3/3	▲BIM Architectural Modeling Applications 3/3	Cultural Heritage Preservation 3/3	Advanced Structures 3/3
Net-Zero Building 3/3	Building and Equipment Interfaces 3/3	Green Building Materials 3/3	Building Property Management 3/3
Seismic-Resistant Spaces 3/3	Healthy Living Architecture 3/3	Disaster Prevention Planning in Architecture 3/3	Thesis 0/0
Required course		24 required credits (which includes 6 credits for the master's thesis)	
Elective course		At least 12 credits must be completed.	
Total minimum credits		36 credits	
Note		▲Computer Course	

5. Entry Requirement:

Admission requirement: CFER listening and reading minimum level B1(Language certification must be ETS certified (TOEIC, IELTS, TOEFL). Chinese Language Proficiency Test (TOCFL) must be A2 before the second year of admission. (Both listening and reading must be level A2 or above)

6. Requirement for graduation:

Students must complete at least 36 credits and pass the degree examination to graduate, including 24 required credits (which includes 6 credits for the master's thesis) and 12 elective credits.

7. Post-Graduation Employment Obligations:

The obligation period for students hired corresponds to the duration of receiving the corporate living allowance. For instance, those receiving a 2-year living allowance from the industry are obligated to work for a period of 2 years.

If student successfully passes assessments conducted by both the school and the industry, completes their academic requirements, and obtains a degree, the collaborating industries have the right to hire and should provide suitable positions and salary should not be less than the average salary in the same field. The employment should align with the vacancies provided by the industry and the competency requirements for the positions as outlined below:

Number	Collaborating Company Name	Requirements/Number of Positions		Skill Requirement
1	TSG engineering corporation	Civil Engineer	15	1. Assist in coordinating engineering matters at the construction site. 2. Assist in directing activities at the construction site. 3. Responsible for supervising construction and managing personnel. 4. Review and confirm engineering based on construction drawings. 5. Assist in controlling construction progress and ensuring quality.
2	Aoer Interior Decoration Design Engineering Co., Ltd.	Architect	2	Design and planning of buildings, review of relevant regulations, preparation of design and construction drawings, budget estimation, preparation of various application documents for building permits (such as urban

				planning reports, service proposals, application for construction permits and occupation permits), integration and resolution of various engineering progress and issues, and communication and coordination.
		Landscape Designer	2	Plan and design landscapes for residential, commercial, industrial, and public facilities, create design drawings and plans, estimate costs, and supervise construction.
		Interior Designer	2	Based on the client's requirements and budget, conduct interior space planning, equipment layout, and workflow planning. Draw floor plans and construction drawings, supervise construction, and assist in the design of renovation materials and furniture products.
		Construction Estimator	3	Estimate projects, drawings, and specifications; interpret and draw engineering and design drawings; estimate,

				visit, negotiate, and review project bids; and handle the review, coordination, and review of engineering-related matters and labor.
		Construction and Maintenance Engineer	3	Planning, contracting, and supervising the renovation projects of company buildings, conducting public safety inspections, declarations, and maintenance, inspecting and maintaining facilities such as plumbing, electricity, air conditioning, and fire protection systems, and providing guidance and assistance in emergency response for natural disasters or unforeseen accidents.
		Construction Site Supervisor	3	Assist architects or civil engineers in supervising construction sites to ensure that the projects adhere to design specifications and that materials and construction meet established standards. Help interpret construction specifications, assist in managing progress, quality, and cost at the

				worksite. Report progress, construction status, and budget usage, and organize relevant data after completion for documentation and filing.
Total	2 companies	30 job openings		

8. Scholarships:

- (1) Include the first and second year of National Development Fund Scholarships qualifications.

Unit	Content	Limit	Note
National Development Fund	Administrative fees for arrival in Taiwan	For students coming to Taiwan from the New Southbound Policy region and other countries, the maximum amount is 10,000 New Taiwan Dollars.	One-time subsidy covering pre-arrival health check expenses, visa fees, and document verification fees.
	One-way flight ticket	For students coming to Taiwan from the New Southbound Policy region and	One-time subsidy, the airfare is verified based on the economy class one-way ticket for the

Unit	Content	Limit	Note
		other countries, the maximum amount is 9,000 New Taiwan Dollars.	most direct route to Taiwan.
	Industry-Academia Collaboration Scholarship	<p>First Year:</p> <p>Tuition and miscellaneous fees are provided to students in their first year of enrollment.</p>	<ol style="list-style-type: none"> 1. Subsidies will be granted based on the actual tuition and miscellaneous fees payable by students to the school, with an annual maximum subsidy of 100,000 NT dollars (a semester maximum of 50,000 NT dollars). 2. A maximum of two years of tuition and miscellaneous fee subsidies will be provided. 3. obligations for staying in Taiwan for employment will apply based on the number of years the scholarship is received. Specifically, recipients of the scholarship for one year will have a one-
<p>Second Year:</p> <p>For student who reach TOCFL B1 or above and after reviewing the scores and performance by the school and collaborating industry, tuition and miscellaneous fee subsidies will be awarded based on merit.</p>			

Unit	Content	Limit	Note
			<p>year obligation to stay in Taiwan for employment, and those receiving the scholarship for two years will have a two-year obligation to stay in Taiwan for employment.</p>
<p>University</p>	<p>Study Scholarship</p>	<p>To assist students in studying with peace of mind, our school provides students with a scholarship of 5,000 New Taiwan Dollar for living expenses in the first semester, as well as a full waiver for the dormitory fees for the first semester. (Dormitory will be arranged by the school, and students may not choose their own dormitories).</p>	<p>The accommodation fee waiver is only available for those who apply for on-campus accommodation.</p>

(2) Industry-Academia Collaboration Scholarship Requirement

Student who withdraws from the specialized program or fails to fulfill employment contract after graduation, the repayment principles for the scholarships as follows:

1. If the circumstances are not under student control, there is no requirement for repayment:

(1) Due to the operational adjustment, the original collaborating industry ceases to provide living allowance to student during their learning and student is unable to achieve additional support from other industry, leading the student's withdrawal from the specialize program.

(2) Due to the operational adjustment, the original collaborating company has no job vacancies available for employment upon the student's graduation and , and despite the school's efforts in providing career guidance and facilitating job placement, the student is unable to secure suitable employment opportunities.

(3) If the collaborating company, during the student's employment period, encounters situations as specified in Article 14, Paragraph 1 of the Labor Standards Act, leading the student to terminate the contract, and despite the school's efforts in providing career guidance and facilitating job placement, the student is still unable to find a suitable company for subsequent employment.

(4) Student's death, severe illness, or an unforeseen accident preventing them from continuing their studies or employment, a certified document issued by a teaching hospital rated at or above the level of accreditation by the Ministry of Health and Welfare, stating the student's inability to continue education or employment, or in cases where significant family upheaval due to an accident prevents the student from pursuing education or employment, as verified by the school.

2. If the circumstances are under student control, requirement for repayment:

(1) Withdrawal from the specialized program during the academic period due to personal reasons such as applying for transfer,

changing majors, absence, or returning to one's home country. Even after guidance provided by the school, if the student chooses to leave the specialized program or if the school, in accordance with its regulations, initiates withdrawal or expulsion.

- (2) Poor academic performance, failure to meet the evaluation standards set by both the school and the collaborating industry. Even after school guidance, student fails improve, and in accordance with the school regulations, the student faces withdrawal or expulsion. In such cases, the student is required to repay the previously received industry-academia scholarships.
- (3) After graduation, student chooses not to pursue employment with the collaborating industry or in the relevant industrial field, or if, after employment, the student violates company regulations leading to lawful termination of the labor contract, and after school guidance, no improvement is observed, the student is obligated to repay the received industry-academia funding.
- (4) If a student, during the employment period with the collaborating industry, does not complete the specified duration for receiving industry-academia scholarship, repayment should be made based on the proportion of the remaining months unemployed; for periods less than one month, one month's repayment is required.

9. Living allowance requirement:

- (1) Living Allowance:

Unit	Content	Limit	Note
Collaborating companies of the program	Living Allowance	During the student's academic period and before participating in the internship, the monthly stipend is set at 10,000 New Taiwan Dollars per person.	The student may only choose one of living allowance or internship allowance. After graduation, students are obligated to seek
	Internship Allowance	During the off-campus internship period, each	

		person will receive a monthly internship allowance not less than the minimum wage, with overtime pay calculated separately.	employment in Taiwan. Industries who provide subsidies have the right to prioritize the employment of these students.
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(2) Living Allowance Requirement:

Student who withdraws from the specialized program or fails to fulfill employment contract after graduation, the repayment principles for the living allowance as follows:

1. If the circumstances are not under student control, there is no requirement for repayment:
 - (1) Due to the operational adjustment, the original collaborating industry ceases to provide living allowance to student during their learning and student is unable to achieve additional support from other industry, leading the student's withdrawal from the specialize program.
 - (2) Due to the operational adjustment, the original collaborating company has no job vacancies available for employment upon the student's graduation.
 - (3) If the collaborating company, during the student's employment period, encounters situations as specified in Article 14, Paragraph 1 of the Labor Standards Act, leading the student to terminate the contract, no repayment is needed.
 - (4) Student's death, severe illness, or an unforeseen accident preventing them from continuing their studies or employment, a certified document issued by a teaching hospital rated at or above the level of accreditation by the Ministry of Health and Welfare, stating the student's inability to continue education or employment, or in cases where significant family upheaval due to an accident prevents the student from pursuing education or employment, as verified by the school.

2. If the circumstances are under student control, requirement for repayment:
 - (1) Withdrawal from the specialized program during the academic period due to personal reasons such as applying for transfer, changing majors, absence, or returning to one's home country. Even after guidance provided by the school, if the student chooses to leave the specialized program or if the school, in accordance with its regulations, initiates withdrawal or expulsion.
 - (2) Poor academic performance, failure to meet the evaluation standards set by both the school and the collaborating industry. Even after school guidance, student fails improve, and in accordance with the school regulations, the student faces withdrawal or expulsion.
 - (3) Student is not employed to the collaboration industry 3 months after graduation.
 - (4) If a student, during the employment period with the collaborating industry, does not complete the specified duration for receiving industry-academia living allowance, repayment should be made based on the proportion of the remaining months unemployed; for periods less than one month, one month's repayment is required.

一、**專班名稱：**建築技術國際產業人才教育專班，碩士專班，英文授課

二、**專班特色：**

(一)因應建築與營造業少子化缺工的發展情勢，整合相關技術培育人才，旨在訓練已獲得學士學歷的學生。

(二)修業年限為兩年，屬於學士後二年制學士專班，其中第二年安排校外實習，畢業需完成至少 36 學分。第二年需要通過華語文能力測驗(TOCFL)達到 A2 基礎級水準。

(三)課程內容結合產業趨勢與合作公司需求，規劃專業實務課程，培育學生具有建築工程專業知識的設計與營建技術。

(四)合作企業提供課程設計、業師協同教學、實作場域、工務工程師與建築設計助理實習名額等相關領域的實習機會，包括奧兒室內裝修設計工程有限公司、台鋼工程股份有限公司。

三、**開班學校/系所/學制：**

台鋼科技大學/建築系/碩士專班/2025 年春季班

四、**課程規劃：**包含授課語言、課程內容(含校內課程、校外實習之安排)

(一)授課語言：英文授課。

(二)課程內容：

第一年		第二年	
第一學期	第二學期	第一學期	第二學期
專業必修:共 34 學分 (學分數/授課時數)			
建築調查與分析 3/3	研究方法與論文寫作 3/3	企業實習 6/20	企業實習 6/20
專業選修:至少選 6 學分 (學分數/授課時數)			
營建工程管理特論 3/3	BIM 建築建模應用 專題 3/3	文化資產保存特論 3/3	高等結構專題 3/3
淨零建築專題 3/3	建築與設備接點特 論 3/3	綠色建材特論 3/3	建築物業管理特 論 3/3
空間耐震專題 3/3	▲健康建築專題 3/3	建築防災計畫 3/3	專題討論 0/0
專業必修		24 學分(包括碩士論文 6 學分)	
專業選修		至少修 12 學分	
最低畢業學分數		36 學分	
備註		▲為電腦課	

五、入學資格：

語言能力要求：英文授課，學生入學前英文能力須達 CEFR B1 級(含)以上(需是 ETS 之合格證書(TOEIC, IELTS, TOEFL) (入學第 2 年華語文能力聽、讀 2 項建議須達 A2 級(含)以上)。

六、畢業門檻：

學生畢業學分數規定至少需修滿 36 學分及通過學位考試方可畢業，其中包括必修 24 學分(包括碩士論文 6 學分)選修 12 學分

七、畢業後履行就業義務：

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。

學生如通過學校及企業評核，完成學業取得學位，合作企業具聘用權，應提供適合職缺及不低於同領域平均薪資之待遇，留用並聘僱學生。配合企業所提供的職缺及該職缺所需的職能要求如下：

編號	專班合作企業名稱	職務需求/人數		專業能力
1	台鋼工程股份有限公司	工務工程師	15	1.協助工程現場的工程事項協調。 2.協助工程現場指揮。 3.負責施工之監督與人員管理。 4.依據施工圖進行工程檢討與確認。 5.協助控管施工進度與品質。
2	奧兒室內裝修設計工程有限公司	建築設計師	2	建築物的設計規劃、相關法規檢討、設計及施工圖繪製、預算估價、各項有關建築執照申請書表圖面製作（如都審報告書、服務建議書、申請建照及使照等）、各項工程進度及工程問題或狀況之整合解決及溝通協調。
		景觀設計師	2	規劃及設計住宅、商業、工業及公共設施等地區之景觀，製作設計工作圖及計畫書，並預估經費及監督施工。
		室內設計師	2	依據業主需求及經費預算，進行室內空間、設備、動線規劃、繪製平面配置圖、施工圖且監督施工，並協助裝修材料及家具產品設計。

		建築估算師	3	估算工程、圖面和標單；判讀及繪製工程圖面和設計圖面；工程標前估算、訪價、議價與審核，及處理工程相關事務和勞務的審查、協調與檢討。
		營繕工程師	3	公司建物修繕工程之規畫發包及監工，公共安全檢查申報及維護，水電、空調、消防等設備檢測操作及維護，以及天(火)災或突發事故緊急應變指導協助。
		工地監工	3	協助建築師或土木工程師在工地監工，確保工程符合設計規格，及材料與施工保持既定標準，並協助解釋施工規範問題，協助工區進度、品質及成本管理。需報告進度、施工狀況以及預算使用情形，並整理完工後之相關資料並且建檔備查。
合計	2 家	30 個職缺		

八、獎助金說明：

(一)錄取之學生，經審核通過將由國發基金提供產學獎助金。獎助

金包括：

獎 / 補 助 單 位	獎/補助項目	獎/補助額度上限	說明
國 發 基 金	初次來臺之相關 必要 行政費用	新南向區域國家及 其他國家來臺，上 限新臺幣 10,000 元。	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。
	單程機票	新南向區域國家上 限為新臺幣 9,000 元。	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。
	產學獎助金	第一年： 學生入學第一年給 予學雜費補助。 第二年： 華語文能力測驗 (TOCFL)需達 B1 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。	1. 依學生實際應繳交給學校 學雜費給予補助，每年補助 上限 10 萬元(一學期上限 5 萬元)。 2. 最多補助 2 年學雜費。 3. 依據領取年限具有相應留 臺就業年限的義務。即領取 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。
本 校	學習助學金	本校為協助學生安 心就學，於第一學 期提供學生 5,000 元生活獎助學金， 以及第一學期本校 宿舍費之全額獎助 學金。(限申請本校 宿舍之學生，並宿	住宿費用減免僅提供申請校內 住宿者。

獎 / 補 助 單 位	獎/補助項目	獎/補助額度上限	說明
		舍由本校安排，學生不得挑選)。	

(二)學生如中途退出專班或畢業後未履約就業者，所受領之產學獎

助金必須依規定之原則繳還。原則如下：

1. 屬不可歸責於學生之原因，無須繳還產學獎助金：

(1) 原合作企業因營運調整，於學生在學期間停止提供生活津貼，又學生經學校媒合仍無法覓得其他企業願意續予補助生活津貼，致學生中途退出專班者。

(2) 原合作企業因營運調整，於學生畢業時無職缺可聘用，又學生經學校進行就業輔導及媒合其他企業仍無法覓得適合企業聘僱者。

(3) 合作企業於學生就業期間有勞動基準法第十四條第一項規定情形，致學生提出終止契約，又學生經學校進行就業輔導及媒合，仍無法覓得適合企業接續聘僱者。

(4) 學生死亡、因重大疾病或意外事故不能繼續就學或就業，經衛生福利部新制醫院評鑑合格之教學醫院以上層級，開立認定無法繼續就學或就業證明者，或因事故致家庭巨變無法繼續就學或就業，經學校查證屬實者。

2. 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。

(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，或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，學生應返還已領之產學獎助金。

(4) 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。

九、生活津貼說明：

(一)生活津貼：

獎/補助單位	獎/補助項目	獎/補助額度上限	說明
專班 合作企業	生活津貼	學生就學期間，企業每月提供 <u>1 萬元</u> 生活津貼。	實習期間，實習津貼不得低於台灣基本薪資，但，生活津貼與實習津貼擇一領取。
	實習津貼	校外實習期間每人每月提供不低於最低薪資的實習津貼，加班費另計。	畢業後即具有留臺就業義務，提供獎助津貼之企業具有優先留用聘僱學生的權利，以加速補足所需中高階人才。

(二)生活津貼繳還原則：

學生如因中途退出專班或畢業後未履約就業，所受領企業生活津貼之繳還原則如下：

1. 屬不可歸責於學生之原因，無須繳還生活津貼：

(1) 企業若因營運調整，於學生在學期間停止提供學生生活津貼，屬不可歸責於學生之原因，企業不得向學生追回已請領之生活津貼。

(2) 合作企業因營運調整，於學生畢業時無職缺可聘用。

(3) 合作企業於學生就業期間有勞動基準法第十四條第一項規定情形，致學生提出終止契約時，學生免償還已受領之生活津貼。

(4) 學生死亡、因重大疾病或意外事故不能繼續就學或就業，經衛生福利部新制醫院評鑑合格之教學醫院以上層級，開立認定無法繼續就學或就業證明者，或因事故致家庭巨變無法繼續就學或就業，經學校查證屬實並通報企業者，得免履行就業義務及免償還受領之生活津貼。

2. 屬可歸責於學生之原因，得於合約內容載明追回條件情況下，由企業向學生追回生活津貼：

(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。

(2) 學生學習表現不佳，未通過學校及企業評核標準，經學校輔導後仍無改善，致企業不予聘用者。

(3) 學生畢業後 3 個月內，未至合作企業就業。

(4) 學生於合作企業就業期間未滿受領生活津貼年限：應依其未就業之月數比例償還生活津貼；不滿一月者，以一月計。