

# 嶺東科技大學114學年度入學新生課程標準

## Ling Tung University Curriculum Standards in effect since 2025

Department(系所別):(智慧製造科技系)

College(學院):College of AI Technology(智慧科技學院)

Academic Year of Entrance(入學年):2025

Program:Four-year B.D. for Day Division(日間學制四年制)

第一學年第一學期				
科目名稱	Course Title	R/E	Credits	Hours
中文閱讀與思考	Chinese Reading and Thinking	R	2	2
職涯與職能發展	Career and functional development	R	2	2
體育(一)	Physical Education I	R	2	2
英文(一)	English I	R	2	2
計算機概論	Introduction to Computer Science	R	3	3
微積分(一)	Calculus I	R	3	3
工程圖學	Engineering Graphics	R	3	3
工業配線實務	Industrial Wiring Practice	R	3	3
智慧製造概論	Introduction to Intelligent Manufacturing	R	3	3
第一學年第二學期				
科目名稱	Course Title	R/E	Credits	Hours
中文應用書寫表達	Application of Chinese	R	2	2
體育(二)	Physical Education II	R	2	2
英文(二)	English II	R	2	2
電腦輔助機械製圖	Computer-Aided Mechanical Drafting	R	3	3
氣壓控制實務	Pneumatic Control Practice	R	3	3
基礎程式設計	Basic Programming	R	3	3
工程材料	Engineering Materials	E	3	3
電學概論	Introduction to Electricity	E	3	3
數位邏輯設計	Digital Logic Design	E	3	3
機械製造	Mechanical Manufacturing	E	3	3
第二學年第一學期				
科目名稱	Course Title	R/E	Credits	Hours
AI思維與應用	AI thinking and application	R	2	2
群己倫理與生命關懷	Ethnics and Interpersonal Relationships	R	2	2
博雅通識(一)	General Education I	R	2	2
數控程式設計	Numerical Control Programming	R	3	3
可程式控制器與實習	Programmable Logic Controller and Practice	R	3	3
微處理機與實習	Microprocessor and Practice	R	3	3
電子學應用	Electronics applications	E	3	3
程式設計	programming	E	3	3
工程力學	Engineering Mechanics	E	3	3
感測器原理與應用	Principles and Applications of Sensors	E	3	3
全民國防教育(一)	National Defense Education I	E	2	2
第二學年第二學期				
科目名稱	Course Title	R/E	Credits	Hours
博雅通識(二)	General Education II	R	2	2
職場英文	Workplace English	R	2	2
電腦輔助設計與製造	Computer-Aided Design and Manufacturing	R	3	3
機電整合與實習(一)	Mechatronics and Practice I	R	3	3
機器人學	Robotics	R	3	3
機器設備聯網	Machine Equipment Networking	E	3	3
資料庫概論	Introduction to Databases	E	3	3
機構學	Mechanism	E	3	3
響應式網頁設計	Responsive Web Design	E	3	3
電動機控制實務	Motor Control Practice	E	3	3
全民國防教育(二)	National Defense Education II	E	2	2
第三學年第一學期				
科目名稱	Course Title	R/E	Credits	Hours
博雅通識(三)	General Education III	R	2	2
專業英文	Professional English	R	2	2

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計算機網路	computer network	R	3	3
工業機械人應用	Industrial Robot Applications	R	3	3
3D列印與實習	3D Printing and Practice	E	3	3
機電整合與實習(二)	Mechatronics and Practice II	E	3	3
電路模擬與設計	Circuit Simulation and Design	E	3	3
資料擷取與監控	Data Acquisition and Monitoring	E	3	3
智慧機器人程式設計	Intelligent Robot Programming	E	3	3
物聯網應用	Internet of Things Applications	E	3	3
<b>第三學年第二學期</b>				
<b>2nd Semester Third Year</b>				
科目名稱	Course Title	R/E	Credits	Hours
博雅通識(四)	General Education IV	R	2	2
實務專題(一)	Practical Project I	R	2	2
人工智慧	Artificial Intelligence	R	3	3
電腦輔助工程分析	Computer-Aided Engineering Analysis	E	3	3
人機介面	Human-Machine Interface	E	3	3
工業網路	Industrial Networks	E	3	3
大數據分析	Big Data Analytics	E	3	3
影像處理	Image Processing	E	3	3
機器學習	Machine Learning	E	3	3
專業證照輔導	Professional Certification Guidance	E	3	3
<b>第四學年第一學期</b>				
<b>1st Semester Fourth Year</b>				
科目名稱	Course Title	R/E	Credits	Hours
實務專題(二)	Practical Project II	R	2	2
企業實習	Industrial Internship	E	3	3
公差配合與量測技術	Tolerance matching and Measurement Technology	E	3	3
PC-based控制	PC-Based Control	E	3	3
最佳化設計	Optimization Design	E	3	3
模治具設計	Mold and Jig Design	E	3	3
雲端運算	Cloud Computing	E	3	3
機器視覺	Machine Vision	E	3	3
能源科技應用	Energy Technology Applications	E	3	3
專業實習(一)	Professional Internship I	E	6	6
<b>第四學年第二學期</b>				
<b>2nd Semester Fourth Year</b>				
科目名稱	Course Title	R/E	Credits	Hours
實務專題(三)	Practical Project III	R	2	2
創意與專利	Creativity and Patents	E	3	3
統計製程管制	Statistical Process Control	E	3	3
工業4.0應用	Industry 4.0 Applications	E	3	3
製造執行系統	Manufacturing Execution Systems	E	3	3
資訊與網路安全	Information and Network Security	E	3	3
自動光學檢測	Automated Optical Inspection	E	3	3
數位訊號處理	Digital Signal Processing	E	3	3
專業實習(二)	Professional Internship II	E	6	6

備註:R=Required;E=Elective

## Regulations

1. A minimum of 128 credits is required for graduation, including 28 University-required credits, 8 College-required credits, 51 Department-required credits, and 41 professional elective credits.
2. Semester credit requirements are as follows: first- to third-year students must complete 16–25 credits per semester, while fourth-year students must complete 9–25 credits per semester. Detailed regulations shall be governed by the University Academic Regulations.
3. In accordance with the University’s “Implementation Regulations for Chinese Language Competency Assessment,” “Implementation Regulations for English Language Competency Assessment,” “Implementation Regulations for Information Competency Assessment,” and “Implementation Regulations for Health and Physical Fitness Assessment,” students must pass the required assessments in Chinese language, English language, information competency, and health and physical fitness in order to graduate.
4. Students must meet the assessment standards specified in the Department’s “Regulations for Professional Competency Assessment” in order to graduate. Certificates obtained by students who pass the University’s Information Competency Assessment are also recognized by the Department as basic workplace information application certificates.
5. Practical Project (I), Practical Project (II), and Practical Project (III) are offered in accordance with the Department’s curriculum planning and are listed as Department-required courses.
6. Students may take courses offered by other departments if such courses are not available in this Department. Credits earned from these courses and approved by the Department may be counted toward professional elective credits, up to a maximum of 12 credits 20 credits (including credits from interdisciplinary programs). Credits from interdisciplinary programs may be counted separately. Students may also take courses at other universities if such courses are not offered by this Department; however, only one course may be taken. Credits earned from other universities shall be included within the limit for external department elective credits. Enrollment in inter-university courses shall follow the University’s “Inter-University Course Selection Regulations”.
7. Students participating in the Ministry of National Defense Reserve Officers’ Training Corps (ROTC) program who have completed the required winter and summer training and obtained certification may apply for credit exemptions for departmental internship courses, up to a maximum of 10 credits. Students applying

for exemption from a full-semester internship must complete registration during the internship semester and enroll in at least one additional course.

8. For the Department's Enterprise Internship, Professional Internship (I), and Professional Internship (II) courses, each credit is limited to a maximum of 64 hours of student internship time.