

# 嶺東科技大學112學年度入學新生課程標準

## Ling Tung University Curriculum Standards in effect since 2023

Department(系所別):(資訊科技系智慧製造科技產業 專班) College(學院):College of AI Technology(智慧科技學院)

Academic Year of Entrance(入學年):2023

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
基本勞作教育(一)	Labor Education I	R	0	2
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
智慧製造概論	Introduction to Smart Manufacturing	R	3	3
工程圖學	Engineering Graphics	R	3	3
基礎程式設計	Fundamental Programming	R	3	3
第一學年第二學期				
科目名稱	Course Title	R/E	Credits	Hours
基本勞作教育(二)	Labor Education II	R	0	2
英文(二)	English II	R	2	2
中文應用書寫表達	Application of Chinese	R	2	2
體育(二)	Physical Education II	R	2	2
電腦輔助繪圖	Computer-Aided Drawing	R	3	3
氣壓控制實務	Pneumatic Control Practice	R	3	3
機器人概論	Introduction to Robotics	R	3	3
電子電路應用	Electronic Circuit Applications	E	3	3
物件導向程式設計	Object-Oriented Programming	E	3	3
感測器控制原理與應用	Principles and Applications of Sensor Control	E	3	3
勞工安全與法規	Labor Safety and Regulations	E	3	3
第二學年第一學期				
科目名稱	Course Title	R/E	Credits	Hours
數位應用	Digital 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
機械製造	Manufacturing Processes	R	3	3
可程式控制應用與實習	Programmable Logic Controller Applications and Practice	R	3	3
企業專題製作(一)	Industrial Project Production I	R	3	3
3D列印與實習	3D Printing and Practice	E	3	3
數位影像處理概論	Introduction to Digital Image Processing	E	3	3
物聯網實務	Internet of Things Practice	E	3	3
職場體驗(一)	Workplace Experience I	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
職場英文	Workplace English	R	2	2
博雅通識(二)	General Education II	R	2	2
人工智慧概論	Introduction to Artificial Intelligence	R	3	3
機械手臂實務	Robotic Arm Practice	R	3	3
企業專題製作(二)	Industrial Project Production II	R	3	3
可程式控制進階	Advanced Programmable Logic Control	E	3	3
馬達原理與控制	Motor Principles and Control	E	3	3
逆向工程與快速原型加工	Reverse Engineering and Rapid Prototyping	E	3	3
自動化機械元件	Automated Machinery Components	E	3	3
量測原理	Principles of Measurement	E	3	3
職場體驗(二)	Workplace Experience II	E	3	3
全民國防教育(二)	National Defense Education II	E	2	2

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專班)

Academic Year of Entrance(入學年):2023

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

第三學年第一學期				
1st Semester Third Year				
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
企業實務專題(一)	Industrial Practical Project I	R	2	2
自動化機械設計	Automated Machinery Design	R	3	3
機器人與自動化應用實務	Robotics and Automation Applications Practice	R	3	3
機電整合與實作	Mechatronics Integration and Practice	R	3	3
圖控程式設計	Graphical Control Programming	E	3	3
大數據分析	Big Data Analysis	E	3	3
機器人視覺實務	Practical Robot Vision	E	3	3
專業證照輔導	Professional Certification Guidance	E	3	3
數控工具機概論	Introduction to CNC Machine Tools	E	3	3
產業實習(一)	Industrial Internship I	E	6	6
第三學年第二學期				
2nd Semester Third Year				
科目名稱	Course Title	R/E	Credits	Hours
博雅通識(四)	General Education IV	R	2	2
企業實務專題(二)	Industrial Practical Project II	R	2	2
產品設計	Product Design	E	3	3
智慧製造生產線管理	Smart Manufacturing Production Line Management	E	3	3
品質與可靠度	Quality and Reliability	E	3	3
機器學習	Machine Learning	E	3	3
產業實習(二)	Industrial Internship II	E	6	6
第四學年第一學期				
1st Semester Fourth Year				
科目名稱	Course Title	R/E	Credits	Hours
企業實務專題(三)	Industrial Practical Project III	R	2	2
公差設計	Tolerance Design	E	3	3
最佳化設計	Optimization Design	E	3	3
機器視覺檢測技術	Machine Vision Inspection Technology	E	3	3
雲端運算	Cloud Computing	E	3	3
工程英文	Engineering English	E	3	3
智慧機電整合實務實習(一)	Intelligent Mechatronics Integration Practical Internship I	E	6	6
智慧機電自動化產業實習(一)	Intelligent Mechatronics Automation Industrial Internship I	E	6	6
產業實務實習(一)	Industrial Practical Internship I	E	6	6
第四學年第二學期				
2nd Semester Fourth Year				
科目名稱	Course Title	R/E	Credits	Hours
電腦輔助工程分析	Computer-Aided Engineering Analysis	E	3	3
創意與專利	Creativity and Patents	E	3	3
智慧機器人軟體設計	Smart Robot Software Design	E	3	3
智慧機電整合實務實習(二)	Intelligent Mechatronics Integration Practical Internship II	E	6	6
智慧機電自動化產業實習(二)	Intelligent Mechatronics Automation Industrial Internship II	E	6	6
產業實務實習(二)	Industrial Practical Internship II	E	6	6

備註:R=Required;E=Elective

## Regulations

1. The total number of credits required for graduation is 128, including 28 university-required credits, 8 college-required credits, 51 department-required credits, and 41 professional elective credits.
2. Students in their first to third years may take 16–25 credits per semester, while fourth-year students may take 9–25 credits. Detailed regulations are governed by the University Academic Regulations.
3. Students may take courses offered by other departments that are not available in this department. Upon departmental approval, up to 12 credits (including interdisciplinary program credits) may be counted toward professional elective credits. Students may also take courses at other universities, limited to one course. Credits earned will be included in the calculation of external elective credits. Inter-institutional enrollment shall follow the University's "Implementation Guidelines for Inter-Institutional Course Selection."