

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):Bachelor of Science(資訊科技系 智慧製造科技組) 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
計算機程式設計	Computer Program Design	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
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
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
3D列印應用	Basics of 3D Printing and Design	E	3	3
創意機構應用	Creative Mechanism Applications	E	3	3
電學概論	Introduction to Electrical Engineering	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
自動化製造與實習	Automated Manufacturing and Practicum	R	3	3
機械製造	Mechanical Manufacturing	R	3	3
基礎電子與電工實務	Basic Electronics and Electrical Engineering Practice	R	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
電子電路與實習	Electronic Circuits and Practicum	E	3	3
數位邏輯與實習	Digital Logic and Practicum	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
自動控制概論	Introduction to Automatic Control	R	3	3
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
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 Machine Components	E	3	3
量測原理	Measurement Principles	E	3	3
全民國防教育(二)	National Defense Education II	E	2	2

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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
實務專題(一)	Practical Project I	R	2	2
機電整合與實作	Mechatronics and Implementation	R	3	3
自動化機械設計	Automated Machine Design	R	3	3
圖控程式設計	Graphical Programming	E	3	3
大數據分析	Big Data Analysis	E	3	3
專業證照輔導	Professional Certification Tutorial	E	3	3
數控工具機概論	Introduction to CNC Machine Tools	E	3	3
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
實務專題(二)	Practical Project II	R	2	2
機器人與自動化應用實務	Robotics and Automation Application Practice	R	3	3
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
品質與可靠性	Quality and Reliability	E	3	3
機器學習	Machine Learning	E	3	3
第四學年第一學期				
1st Semester Fourth Year				
科目名稱	Course Title	R/E	Credits	Hours
實務專題(三)	Practical Project III	R	2	2
企業實習	Corporate Internship	E	3	3
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
資訊志工(一)	IT Service Learning1	E	3	3
第四學年第二學期				
2nd Semester Fourth Year				
科目名稱	Course Title	R/E	Credits	Hours
專業實習(一)	Practical Training I	E	3	3
專業實習(二)	Practical Training II	E	3	3
專業實習(三)	Practical Training III	E	3	3
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
資訊志工(二)	IT Service Learning2	E	3	3
智慧機器人軟體設計	Intelligent Robot Software Design	E	3	3
機器人視覺	Robot Vision	E	3	3

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. In accordance with the University's implementation guidelines for Chinese proficiency, English proficiency, information technology competency, and physical fitness, students must pass all required assessments to be eligible for graduation.
4. Students must meet the standards specified in the Department's "Implementation Guidelines for Professional Competency Assessment" to be eligible for graduation. Once students pass the assessment under the University's "Implementation Guidelines for Students' Information Technology Competency Assessment," the licenses and certificates they obtain will also be recognized by the Department as professional certifications for basic workplace information technology applications.
5. "Practical Project (I)," "Practical Project (II)," and "Practical Project (III)" are offered in accordance with the Department's curriculum planning and are designated as required courses for the Department.
6. 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."
7. Students participating in the Ministry of National Defense Reserve Officers' Training Corps (ROTC) who have completed winter and summer training and obtained certification may apply for credit waivers and exemptions from the Department's internship courses. Students applying for a full-semester internship exemption must complete registration and enroll in other courses for at least 3 credits during that semester.
8. Students admitted to the Department through the Sports Talents Admission Program in the 112 academic year may count their passing grades in the Sports and Health Management Program toward their graduation credits. Among these, 15 credits of core courses from the program will be recognized as the Department's required courses, and 20 credits of elective courses will be counted as the Department's professional elective courses.
9. For Professional Internship (I), Professional Internship (II), and Professional Internship (III), each credit shall correspond to a maximum of 64 internship hours..