

I-SHOU UNIVERSITY Department of Mechanical and Automation Engineering 4-Year Curriculum for Students Admitted in Academic Year 2025

Category	Freshman Year(2025)		Sophomore Year(2026)	
GE core courses: required (18 credits)	A93A34 Academic English [2]1st A93A28 Codes in Health and Medicine [2]1st A93A35 Professional English [2]2nd A93A20 Programming [2]2nd A93A29 Secret Codes in Intelligent Technologies [2]2nd A93A22 Chinese Literature 1.0- Reading, Narration and communication [2]2nd		A93A23 Chinese Literature 2.0- Critical thinking and creativity in writing [2]1 st A93A21 Civic Literacy in the Era of Globalization [2]2nd A93A15 Physical Education (I) [1]1st A93A16 Physical Education (II) [1]2nd	
College-required courses (18 credits)	A83819 Calculus (I) [2]1st A83820 Calculus (II) [2]2nd A83817 Calculus e-learning (II)- [1]1st A83818 Calculus e-learning (II) [1]2nd A83815 Physics(I) [3]1st A83816 Physics(II) [3] 2nd A83E03 Deciphering sustainable development [2]2nd A83812 General Physics Laboratory [1]2nd		A83809 Engineering Mathematics(I) [3]1st	
Category	Freshman Year(2025)	Sophomore Year(2026)	Junior Year(2027)	Senior Year(2028)
Department-required courses (46 credits)	A04243 Mechanical Engineering Materials [3]1st A04246 Introduction to smart machinery [2]1st A04551 Internship of Computer Aided Design and Manufacturing [3]1st A04130 Applied Mechanics -Statics [3]2nd	A04217 Thermodynamics (I) [3]1st A04339 Computer aided design and practice [1]1st A04230 Electric Circuits [3]1st A04285 Applied Mechanics -Statics [2]1st A04214 Practice in mechanical workshop [1]2nd A04239 Mechanisms [3]2nd A04323 Manufacturing Processes (I) [3]2nd A04226 Strength of Materials [3]2nd	A04319 Mechanical Engineering Laboratory (I) [1]1st A04347 Electrical Engineering & Electronics Labor [1]1st A04216 Implementation in mechanical workshop [1]1st A04317 Fluid Mechanics [3]1st A04349 Fundamental of Machine Design [3]1st A04320 Mechanical Engineering Laboratory (II) [1]2nd A04325 Automatic Control [3]2nd A04409 Mechatronics Laboratory [1]2nd A04369 Practical Project (I) [2]2nd	A04319 English Proficiency Enhancement [0] 1st
Departmental electives (≥16credits)	A04241 Material Science [3] A04145 Global Communication Skills [2] A04215 Introduction to green energy [3]	A04236 Thermodynamics (II) [3] A04062 Engineering Mathematics(II) [3] A04070 Electronics [3] A04061 Applied Mechanics -Dynamics [3] A04078 Practices of the smart machinery [3] A04359 Smart Energy [3] A04552 Design and Analysis of Computer Aided Engineering [3] A04284 Energy storage and energy saving technologies [3]	A04336 Manufacturing process for Engineering Materials(II) [3] A04368 Sensor technology [3] A04420 Mechatronics [3] A04311 Applications of Photovoltaic Technology [3] A04071 Heat Transfer [3] A04479 Logic Circuits [3] A04372 Design of Machine Elements [3] A04463 Principles and Applications of PLC [3] A04361 Pneumatics & Hydraulics [3] A04386 Non Traditional Manufacture Technology [3] A04472 Computer Aided Design & Manufacturing [3] A04512 Machine Learning [3] A04410 Electric Vehicle [3] A04505 Electric vehicle design [3]	A04447 Rapid Prototyping Principles and Technology [3] A04677 Modern Control Systems [3] A04685 Engineering Computational Methods [3] A04441 metal Heat Treatment [3] A04632 Application of Computational Fluid Dynamics [3] A04663 Mechanism Design Fluid Dynamics [3] A04414 Project practice for 3D printing [3] A04383 Industrial Internship (I) [3] A04513 Industrial Internship (II) [3] A04648 Introduction to MEMS [3] A04072 Flight Principle And Maneuvering Techniquw For Uavs [3] A04490 Numerical Control Machine [3] A04638 Micro-Sensory Sytem [3] A04550 Multi-axis machining and manufacturing technology [3] A04557 Working Capability and Occupational Ethics [2] A04553 Single-chip Controller [3] A04555 Semiconductor Fabrication Technology [3]
GE liberal arts education	GE liberal arts education: elective, 10 credits from “Humanities and Arts”, “Nature and Technology” , “Social Science”			
Cross-domain electives	Up to 20 credits earned from courses, whether required or elective, offered by other departments/programs at I-Shou University or its partner universities will be recognized by the Department as credits from electives.			
Credits required for graduation from the Department	128 Credits			
Note	<p>1.Students are required to meet the requirements set by the Department for “English Proficiency,” in addition to earning the required number of credits to be eligible for graduation.</p> <p>2.Before graduation, students are required to take at least one required cornerstone course offered by another college. The credits earned from such courses may be recognized as part of the credits under the category of Liberal Arts Education, but only a maximum of four credits will be recognized accordingly. (For more details about required cornerstone course offered by different colleges, please refer to the announcement on the website of the Curriculum Section.)</p>			