I-SHOU UNIVERSITY Department of <u>Department of Medical Science and Biotechnology</u> 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]1st A93A15 Physical Education (I) [1]1st A93A16 Physical Education (II) [1]2nd A93A21 Civic Literacy in the Era of Globalization [2]2nd				
College- required courses (3 credits)	A8EE01 Introduction to fundamental medicine [1] 2nd A8E201 General Chemistry [2]1st						
Category	Freshman Year(2025)	Sophomore Year(2026)	Junior Year(2027)	Senior Year(2028)			
Department-required courses (56 credits)	A41323 Calculus [3] 1st A41656 General Chemistry Lab [1]1st A41305 General Biology (I) [3] 1st A41306 General Biology Lab.(I)[1] 1st A41422 Introduction to Biotechnology [2] 1st A41728 Medical science and biotechnology career exploration [1] 1st A41400 Microbiology [3] 2nd A41401 Microbiology Lab. [1] 2nd A41312 General Biology (II) [3] 2nd A41313 General Biology Lab. (II) [1] 2nd A41430Organic Chemistry (I) [3] 2nd	A41431 Organic Chemistry(II) [3] 1st A41432 Organic Chemistry Lab[1] 1st A41406 Biochemistry (I) [3] 1st A41407 Biochemistry Lab (I)[1] 1st A41502 Biochemistry (II) [3] 2nd A41503 Biochemistry Lab.(II) [1] 2nd A41506 Molecular Biology [3] 2nd A41507 Molecular Biology Lab.[1] 2nd A41746 Analytical Chemistry [3] 1st	A41736 Scientific Journal Seminar (I)1st A41738 Scientific Journal Seminar (II) [1] 2nd A41661 Food analysis [3] 2nd A41664 Laboratory of food analysis [1] 2nd A41734 Cell Biology and Practice (including Laboratory Work) [3] 1st A41747 Medicine and biotechnology patents [2] 2nd	A41740 Scientific Journal Seminar (III) [1] 1st A41673Working Capability and Occupational Ethics [2] 1st A41742 Scientific Journal Seminar (IV) [1] 2 nd A41623 English Proficiency [0]			
Departmental electives (≥21 credits)	A41745 Biostatistics (with Practicum) [2] A41672 Techniques and Theory of Bioengineering [2] A41729 English for medical science and biotechnology [2] A41726 Biotechnology for Japanese [2]	A41698 Laboratory Animal Science [2] A41700 Physiology [2] A41744 Introduction to Fermentation Technology (including experiments) [3] A41709 AI+New Drug discovery [1]	A41712 Immunology (lab) [3] A41743 Cell Therapy and assay [2] A41691 Medical Virology [2] A41630 Practical Training and Product Development in Biotechnology(I) [1] A41631 Practical Training and Product Development in Biotechnology(II) [1] A41731 Basic medical Japanese [2] A41687 Chemistry and Simulation of Microbial Metabolic Pathways [3] A41714 Food Microbiology (lab)[3] A41732 Workplace Environmental Monitoring [2]	A41711Service and Knowledge for Practice [2] A41741 Application of antibody in biomedicine [3] A41735Exploring the World of Omics [3] A41605Biomaterials [3] A41733Tissue Engineering [3] A41727 Molecular Cancer Biology [2] A41632 Practical Training and Product Development in Biotechnology(III)[1] A41633 Practical Training and Product Development in Biotechnology(IV) [1] A41667 Food hygiene and safety [2] A41739Introduction to AI and Genetic			

				Technology [2] A41737Environmental Health Science [2] A41722Industry intern (I) [4] A41723 Industry intern (II) [1]		
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. (You are eligible to take up to 30 credits form interdisciplinary credit programs, micro-credit programs or program chosen by yourself, if you complete an application and submit it to the Curriculum Committee in your department. Without such written approval in advance, you will only get 20 credits from departments other than the Department of Biological Science and Technology.)					
Credits required for graduation from the Department	128 Credits					
Note	1.In addition to earning the required number of credits to be eligible for graduation, students are required to meet the requirements set by the Department for "English Proficiency," and "to complete either Practical Training and Product Development in Biotechnology or for Industry Internship Training" *Notes: Students have to take at least 4 credits of Practical Training and Product Development in Biotechnology (I) ~ (IV). Internship is Industry Internship Training (I). 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.)					