

大葉大學 114學年度大學日間部新生入學四年學程
114 Academic Year Bachelor's Degree Program, Da-Yeh University

院別：護理暨健康學院 系列：醫學工程學系 畢業總學分：128學分 製表日期：114.7.2
Department of Biomedical Engineering, College of Nursing and Health Sciences Total Credits: 128 Publish Date: July 2, 2025

類別	Category	必選別	Required/ Elective	科目名稱	Course Title	修課年級、學期別	Academic Year/Semester	學分數 Credits	每週上課時數 Class Hours		備註	Remarks		
									講授 Lecture	實習(驗) Lab.				
校訂必修30學分	University-Required Courses: 30 Credits	必	Required	國文能力	Chinese Language Proficiency	一	1/1、1/2	2	2	0				
		必	Required	運算思維	Computational Thinking	一	1/1、1/2	2	2	0				
		必	Required	英語聽力與口語(一)	English Listening and Speaking (1)	一上	1/1	2	2	0	此四科「英文能力」類課程採： 一.全英語教學 二.能力分班 三.同科目但不同能力班級，課程名稱不同。 例：初級英語聽力與口語(一)、中級英語聽力與口語(一)、中高級英語聽力與口語(一)、高級英語聽力與口語(一)。	The four courses in the "Fundamental English" category have the following features: a.) English-taught instruction b.) Student attending placement tests prior formal classes c.) Students are divided into classes of different levels according to the results of the English proficiency placement test, including Elementary English Listening and Speaking (1) Intermediate English Listening and Speaking (1) Upper-Intermediate English Listening and Speaking (1) Advanced English Listening and Speaking (1)		
		必	Required	英文閱讀與寫作(一)	English Reading and Writing (1)	一上	1/1	2	2	0				
		必	Required	英語聽力與口語(二)	English Listening and Speaking (2)	一下	1/2	2	2	0				
		必	Required	英文閱讀與寫作(二)	English Reading and Writing (2)	一下	1/2	2	2	0				
		必	Required	通識	General Education			16	16	0			美學與文化、社會脈動與公民、國際視野與史觀、科技與永續發展共四大向度，每向度均須選修核心課程至少2學分，另須選修多元延伸課程至少2學分，每向度及多元延伸之修課學分數2-4學分，合計16學分。	General education at Da-Yeh University provides core courses and diversified extension courses. Core courses build on four dimensions: Aesthetics and Culture, Social Dynamics and Citizenship, international Perspectives and Historiography, and Science-technology and Sustainable Development, each requiring 2 to 4 credits. Diversified extension courses require 2 to 4 credits. General education requires 16 credit hours in total to complete.
		必	Required	英語文能力檢定	Qualification Test of English Proficiency			0	0	0			學生於大一下學期結束前均須參加英文檢定校園考或校外英文檢定測驗，成績須達多益400分以上(或CSEPT第一級170分，或全民英檢中級初試通過，或托福、雅思等其他同等級之測驗分數)。依大葉大學學生英文能力檢定辦法辦理。	Students are required to sit in for campus/off-campus English proficiency tests before the end of freshman year. The passing requirement for each proficiency test is described below: TOEIC 400/ 1st-level CSEPT 170/ Intermediate GEPT/TOEFL or IELTS scores at equivalent levels.
		必	Required	資訊基本能力檢定	Qualification Test of Computer Skills			0	0	0	依大葉大學學生資訊基本能力檢定實施辦法辦理。	One of the following Microsoft Office certifications is required for graduation. 1. Microsoft Office Specialist(MOS) in Word 2. Microsoft Office Specialist(MOS) in Powerpoint 3. Microsoft Office Specialist(MOS) in Excel 4. Techiciency Quotient Certification in Word 5. Techiciency Quotient Certification in Powerpoint 6. Techiciency Quotient Certification in Excel 7. Other Microsoft Office certifications authenticated by		
		必	Required	職場實習暨體驗	Internship			0	0	0	學生應於在學期間完成職場實習暨體驗認證時數達100小時以上，始得畢業。依大葉大學職場實習暨體驗實施辦法辦理。	Students should complete an internship during the study period, the hours of authentication for more than 100 hours before graduation. Conduct according to Internship regulation of Da-Yeh University.		
必	Required	中文能力檢定	Chinese Language Proficiency Test			0	0	0	依大葉大學學生中文能力檢定辦法辦理。	Conduct according to Chinese Language Proficiency Test regulation of Da-Yeh University.				
必	Required	體育	Physical Education	一上	1/1	1	2	0	大一每學期均須修習，每學期1學分。	Required for freshman; 1 credit for each semester.				
				一下	1/2	1	2	0						
院訂必修2學分	College-Designated Required Courses: 2 Credits	必	Required	緊急醫療救護概論	Introduction to Emergencies Care	一下	1/2	2	2	0				
系訂必修50學分	Departmental Required Courses: 50 Credits	必	Required	普通化學	General Chemistry	一上	1/1	3	3	0				
		必	Required	普通化學實驗	General Chemistry Laboratory	一上	1/1	1	1	2				
		必	Required	微積分	Calculus	一上	1/1	3	3	0				
		必	Required	醫用生理學	Medical Physiology	一上	1/1	3	3	0				
		必	Required	醫學工程概論	Introduction to Medical Engineering	一下	1/2	3	3	0				
		必	Required	普通物理	General Physics	一下	1/2	3	3	0				
		必	Required	普通物理實驗	General Physical Laboratory	一下	1/2	1	1	2				
		必	Required	計算機概論	Introduction to Computer	一下	1/2	3	3	0				
		必	Required	解剖學	Anatomy	一下	1/2	3	3	0				
		必	Required	工程力學	Engineering Mechanics	二上	2/1	3	3	0				
		必	Required	工程數學	Medical Engineering Mathematics	二上	2/1	3	3	0				
		必	Required	程式語言	Programing in Python	二上	2/1	3	3	0				
		必	Required	醫學工程實驗(一)	Biomedical Engineering Laboratory (1)	二上	2/1	1	1	2				
		必	Required	材料工程導論	Introduction to Material Engineering	二下	2/2	3	3	0				
		必	Required	生物醫學材料	Biomedical Materials	二下	2/2	3	3	0				
		必	Required	醫學工程實驗(二)	Biomedical Engineering Laboratory (2)	二下	2/2	1	1	2				
		必	Required	醫療器材設計導論	Introduction to Design of Medical Device	三上	3/1	3	3	0				
		必	Required	英文科技論文導讀	English Scientific and Technical Readings	三上	3/1	2	2	0				
必	Required	專題研究(一)	Special Topic I	三上	3/1	1	1	0						

		必	Required	訊號與系統(含電路學)	Signals and System(Electronic Circuits)	三下	3/2	3	3	0		
		必	Required	專題研究(二)	Special Topic II	三下	3/2	1	1	0		
系訂選修39學分	Departmental Elective Courses: 39 Credits	選	Elective	普通生物	General Biology	一	1/1、1/2	3	3	0		
		選	Elective	智慧醫療照護概論	Introduction to Smart Healthcare	一	1/1、1/2	3	3	0		
		選	Elective	生物化學	Physics and Chemistry	二	2/1、2/2	3	3	0		
		選	Elective	發明與創意產品設計	Innovative Produce Design	二	2/1、2/2	3	3	0		
		選	Elective	銀髮族創意產品設計	Creative Product Design for the Elderly	二	2/1、2/2	3	3	0		
		選	Elective	機率與統計	Probability and Statistics	二	2/1、2/2	3	3	0		
		選	Elective	工程圖學	Engineering Graphics	二	2/1、2/2	3	3	0		
		選	Elective	感測元件及原理	Components and Theory of Sensors	二	2/1、2/2	3	3	0		
		選	Elective	骨骼肌肉系統	Musculoskeletal System	二	2/1、2/2	3	3	0		
		選	Elective	運動生物力學	Biomechanics of Sport and Exercise	二	2/1、2/2	3	3	0		
		選	Elective	基礎光學	Basic Optics	二	2/1、2/2	3	3	0		
		選	Elective	生物統計學	Biostatistics	二	2/1、2/2	3	3	0		
		選	Elective	電腦輔助設計與分析概論	Introduction to Computer Aided Design and Analysis	二	2/1、2/2	3	3	0		
		選	Elective	醫療器材設計工程	Engineering of Medical Device Design	二	2/1、2/2	3	3	0		
		選	Elective	輔具與復健工程	Assistive Devices and Rehabilitation Engineering	二	2/1、2/2	3	3	0		
		選	Elective	材料分析檢測技術	Material Analysis Technology	三	3/1、3/2	3	3	0		
		選	Elective	醫用高分子	Medical Polymer	三	3/1、3/2	3	3	0		
		選	Elective	細胞生物學	Cell Biology	三	3/1、3/2	3	3	0		
		選	Elective	進階材料工程導論	Introduction to Advanced Material Engineering	三	3/1、3/2	3	3	0		
		選	Elective	薄膜工程(含實驗)	Thin Film Engineering (Including Laboratory)	三	3/1、3/2	3	3	0		
		選	Elective	基礎生醫影像處理技術	Biomedical Image Processing Technology	三	3/1、3/2	3	3	0		
		選	Elective	醫療器材設計與開發實務	Practices in Medical Device Design Products Development	三	3/1、3/2	3	3	0		
		選	Elective	醫學影像系統	Medical Imaging System	三	3/1、3/2	3	3	0		
		選	Elective	醫學儀表與測量	Biomedical Measuring Instrument	三	3/1、3/2	3	3	0		
		選	Elective	生醫材料	Biomaterials	三	3/1、3/2	3	3	0		
		選	Elective	熱處理	Heat Treatment	三	3/1、3/2	3	3	0		
		選	Elective	焊接工程	Welding Engineering	三	3/1、3/2	3	3	0		
		選	Elective	輕量化醫療器材設計開發	Design and Development on Lightweight Materials of Medical Device	三	3/1、3/2	3	3	0		
		選	Elective	臨床醫療概論	Introduction of Clinical Medicine	三	3/1、3/2	3	3	0		
		選	Elective	生醫光電檢測(含實驗)	Biomedical Optoelectronic Testing(Including Laboratory)	三	3/1、3/2	3	3	0		
選	Elective	醫學工程實驗(三)	Biomedical Engineering Laboratory (3)	三	3/1、3/2	1	1	2				
選	Elective	醫學工程實驗(四)	Biomedical Engineering Laboratory (4)	三	3/1、3/2	1	1	2				
選	Elective	生醫光電系統(含實驗)	Biomedical Optoelectronic Systems(Including Laboratory)	四	4/1、4/2	3	3	0				
選	Elective	穿戴式物聯網應用	Implementations on Internet of Wearable Devices	四	4/1、4/2	3	3	0				
選	Elective	醫療器材法規與認證	Regulations and Certification of Medical Devices	四	4/1、4/2	3	3	0		畢業年級相當於國內高級中等學校二年級之國外或香港、澳門同級同類學校畢業生，以同等學力就讀本校學士班者(不含已離校二年以上者及以僑先部結業成績分發入大學者)，除畢業學分數128學分外，應增修12個畢業學分		
選	Elective	醫藥生技與產業概論	Introduction to the Pharmaceutical and Biotechnology Industry	四	4/1、4/2	3	3	0				
選	Elective	智慧輔具設計與開發	Design and Application of Intelligent Assistive Devices	四	4/1、4/2	3	3	0				
選	Elective	醫用電子系統設計	Design of Medical Electronic System	四	4/1、4/2	3	3	0				
選	Elective	細胞培養及應用	Cell Culture and Application	四	4/1、4/2	3	3	0				
選	Elective	生醫奈米科技與材料	Biomedical Nanotechnology and Materials	四	4/1、4/2	3	3	0				
選	Elective	再生醫學與組織工程	Regenerative Medicine and Tissue Engineering	四	4/1、4/2	3	3	0				
選	Elective	臨床工程問題導向學習	Problem-Based Learning of Clinical Engineering	四	4/1、4/2	3	3	0				
選	Elective	逆向工程與3D列印	Reverse Engineering and 3D Printing	四	4/1、4/2	3	3	0				
選	Elective	醫工全職實習	Co-operative Program	四	4/1、4/2	9	0	0				
自由選修7學分	Free Elective Courses: 7 Credits	學生可修習跨院系領域課程做為自由學分，以增加跨界學習能力。(僅認列外系必修或選修課程，通識中心所開課之通識課或語文類不可採計) To increase students' inter-disciplinary learning ability, the school encourages students to take courses offered in different departments or colleges, which can be recognized as Free Elective credits.(Only required or elective courses from other departments will be recognized; general education courses or language courses offered by the General Education Center are excluded from credit recognition.)										

◎醫學工程學系 畢業應修足學分數共 128學分，其中包含：

- A.校訂必修 30 學分
- B.院訂必修 2 學分
- C.系訂必修 50 學分
- D.系訂選修 39 學分
- E.自由選修 7 學分

Students in the Department of Biomedical Engineering must complete a total of 128 credits to graduate, including:

- A. University-Required Courses – 30 Credits
- B. College-Designated Required Courses – 2 Credits
- C. Department-Designated Required Courses – 50 Credits
- D. Department-Designated Elective Courses – 39 Credits
- E. Free Elective Courses – 7 Credits

※114年04月12日醫學工程學系第26次(114.04.12)課程委員會會議通過

※114年4月30日護理暨健康學院113學年度第2次院課程委員會會議通過

※114年7月2日大葉大學第41次(114.07.02)校課程委員會會議通過

Approved at the 26th Department Curriculum Committee Meeting on April 12, 2025

Approved at the 2nd Meeting of the College Curriculum Committee on April 30, 2025

Approved at the 41st Meeting of the University Curriculum Committee, Da-Yeh University, July 2, 2025