

Ming Chuan University Biotechnology Department Course Outline for all students entering in 2023-24 AY (**Biotechnology and Biomedical Industry Program for the USA**) 銘傳大學生物科技學系必選修科目表 (112 學年度入學就讀美國生技醫療產業班學生適用)

Course	Credits	Hours	1 st year				2 nd year				3 rd year				4 th year				Note
			Fall		Spring		Fall		Spring		Fall		Spring		Fall		Spring		
			class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	
生物統計學(英)39220 Biostatistics (E)	3	3					3												
解剖生理學(一)(英)39221 Anatomy and Physiology I (E)	3	3					3												
解剖生理學實驗(一) (英)39222 Anatomy and Physiology Lab I (E)	1	3					1	2											
解剖生理學(二)(英)39223 Anatomy and Physiology II (E)	3	3							3										
解剖生理學實驗(二) (英)39224 Anatomy and Physiology Lab II (E)	1	3							1	2									
營養學(英)39225 Nutrition (E)	3	3							3										
Subtotal Required Course Credits	39																		

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Thanatology (E) 生死學(英)39164	3	3	3																1.社會科學類 Social Sciences 2.對抵校定共同必修 通識教育 Credit for co-requisite general education credits

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Promotion of Adaptation in Groups, Communities and Transcultural Societies (3/2) 促進群體、社區和跨文化社會的適應	5	5											5						
Promotion of Adaptation in Infants, Children and Adolescents (3/2) 促進適應:嬰兒、兒童與青年	5	5													5				
Promotion of Adaptation in Newborns, Women and Childbearing Families (3/2) 促進新生兒、婦女和育齡家庭的適應	5	5													5				
Nursing Research 護理研究	3	3													3				
Promotion of Adaptation: Care for Young, Middle and Elderly Adults II (3/2) 促進適應:年輕、中年及老人的照護(二)	5	5															5		
Promotion of Psychosocial Adaptation (3/2) 促進社會心理的適應	5	5															5		

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Professional Nursing Role Development/Preceptorship (2/2) 專業護理角色的發展/指導	4	4															4		
Senior Seminar 進階研討會	1	1															1		
以上專業選修學程至少需修 60 個學分 Professional electives must be selected at least 60 credit hours																			

Notes:

- 1.依本校學則規定，大學部學生需通過「服務學習」、「英語能力」、「資訊能力」、「中文能力」、「運動能力」及「專業基本能力」檢定，始得畢業。
- 1.In accordance with MCU General Provisions for Study, all undergraduate students must pass the requirements for Service-Learning, English Proficiency, Information Technology Proficiency, Chinese Proficiency, Sports Ability, and Basic Professional Skills in order to graduate.
- 2 美國生技醫療產業班學生須於畢業前修畢校定必修之四大學科共 12 學分；社會科學類至少選修 1 科，自然科學類至少選修 1 科，人文學科至少選修 1 科，跨領域通識學科至少選修 1 科。
- 2.Students have to take at least 12 core elective credits before graduation; it should include at least one subject from “Social Sciences”, one subject from “Natural Sciences & Mathematics”, one subject from “Humanity & Arts”, one subject from “Cross Field General Education Category”, one subject from “free selective”.
- 3.本畢業架構其他選修課程，以 9 學分為限。
- 3.Other elective courses in this graduation framework are limited to 9 credits.
- 4.學生多修習之通識課程、教育學程學分及非本畢業架構課程不列入畢業學分。
- 4.Additional course credits in general education courses, teacher education program and non-graduation framework courses that cannot be counted in the total number of credits required for obtaining a Bachelor’s degree.
- 5.本必選修科目表之選修課程，可追溯至 112 學年度以前入學學生適用。
- 5.The newly added elective courses in this academic year can be applied retroactively to students who entered the university prior to the 2022-2023 academic year.
- 6.需重補修本系專業課程者，經主任同意可修其他學系相同科目名稱或授課內容相同之課程，並可列入畢業學分。
- 6.If students need to repeat a required course, the chair of the department can assign other courses which have the same course name or the same content as a substitute. These courses can be counted toward graduation credit.
- 7.專業選修學程至少需修 60 個學分。
- 7.Professional electives must be selected at least 60 credit hours.
- 8 屆畢業生及延修生若因體育必修課程未通過得以綜合體育一、綜合體育二對抵，至多對抵兩門體育必修課程，該課程對抵可追溯至 109 學年度以前入學學生適用。
8. Graduating students and students in the extended study period who did not pass required courses of Physical Education can waive a maximum of two (2) required Physical Education courses by passing Comprehensive Physical Education I, Comprehensive Physical Education II. This regulation is applicable for those admitted in and prior to 2020-21 academic year.
- 9.外國生、僑生、港澳生若中文能力不佳，可選修國際學院基礎華語(一)(二)，替代中國文學鑑賞與創作(一)(二)；本課程可追溯至 110 學年

度以前入學學生適用。

9.If International students, overseas students or students from Hong Kong and Macao are not good at Chinese, they can take the courses of Basic Chinese I & II through International College instead of taking Chinese Literature: Appreciation and Creative Writing I & II. This regulation can be applied to students who entered the university prior to the 2021-22 academic year.

基本能力 Competencies Requirements	檢定標準 Evaluation Criteria
1.具備生命科學領域相關知識能力 Possess professional knowledge and related ability in life sciences field	在銘傳大學修習完成普通生物學(一)(英)，基礎化學(一)(英)，微生物學(英)，解剖生理學(一)(英)與(二)(英)，生物化學(一)(英)等五大面向課程，並獲得通過。 Complete and pass five major-oriented courses of the department at the university: General Biology I (E), Fundamental Chemistry (E), Microbiology (E), Anatomy and Physiology I (E) and II (E), Biochemistry I (E)
2.合群與良好的英語專業溝通能力 Teamwork and communication skills	在銘傳大學修習以英語授課之專業課程達 30 學分並獲得通過 Complete and pass 30 credits of professional English- instructed courses at the university