

中國醫藥大學 醫學院生物科技學系博士班 必修 畢業學分認定表 115 學年度入學適用

China Medical University Graduate Institute of Biological Science and Technology Requirement for Ph.D. Program (Applicable for 2026-2027 Enrollees)

科目名稱/課號 Course Title/Course ID	修別 Type	學分 Credits	一年級 1 st year		二年級 2 nd year		課程分類 Category	備註 Remarks
			上 1	下 2	上 1	下 2		
分子醫學(Molecular medicine)／BAD000013	必(R)	4.0	4.0				院定必修(College Required Courses)	全英文課程(Full English)
專題討論(Seminar)／BAD000015	必(R)	1.0	1.0				所定必修(Required Courses)	全英文授課，由醫學院開課，僅供生化、細生、生科學生修課。一年級請選班別C；二年級請選班別D；外籍生請選班別E或F。(Full English, Offered by the College of Medicine and open only to students in Biochemistry and Molecular Biology, Cell Biology, and Biological Sciences. First-year students should select Class C; second-year students should select Class D; international students should select Class E or F.)
進階分子細胞生物學(Advanced molecular cell biology)／BAD000027	必(R)	2.0	2.0				所定必修(Required Courses)	外籍生請選班別A(International students should select Class A.)
專題討論(Seminar)／BAD000016	必(R)	1.0		1.0			所定必修(Required Courses)	全英文授課，由醫學院開課，僅供生化、細生、生科學生修課。一年級請選班別C；二年級請選班別D；外籍生請選班別E或F。(Full English, Offered by the College of Medicine and open only to students in Biochemistry and Molecular Biology, Cell Biology, and Biological Sciences. First-year students should select Class C; second-year students should select Class D; international students should select Class E or F.)
專題討論(Seminar)／BAD000017	必(R)	1.0			1.0		所定必修(Required Courses)	全英文授課，由醫學院開課，僅供生化、細生、生科學生修課。一年級請選班別C；二年級請選班別D；外籍生請選班別E或F。(Full English, Offered by the College of Medicine and open only to students in Biochemistry and Molecular Biology, Cell Biology, and Biological Sciences. First-year students should select Class C; second-year students should select Class D; international students should select Class E or F.)
專題討論(Seminar)／BAD000018	必(R)	1.0				1.0	所定必修(Required Courses)	全英文授課，由醫學院開課，僅供生化、細生、生科學生修課。一年級請選班別C；二年級請選班別D；外籍生請選班別E或F。(Full English, Offered by the College of Medicine and open only to students in Biochemistry and Molecular Biology, Cell Biology, and Biological Sciences. First-year students should select Class C; second-year students should select Class D; international students should select Class E or F.)
博士論文(Ph. D. Dissertation)／D0D000018	必(R)	12.0				12.0	校定必修-論文(University Required Courses-Thesis)	
合計 必修總學分(Requirement subtotal)		22.0	7.0	1.0	1.0	13.0		

校內注意事項

- 一、校級畢業規定
- (一)須完成修讀「實驗室安全」0學分、「研究倫理」0學分及「現代生物醫學講座」4學分課程。
- (二)須通過校定博士生英文能力鑑定標準，相關規定依本校「學生英文能力鑑定實施辦法」辦理。(外籍生免修)
- (三)教學助理訓練：博士生須完成至少2學期之教學助理訓練。(外籍生免修)
- 二、本學分表做為畢業應修課程學分之認定依據。

Note of CMU

- 1.University requirement for graduation.
- (1)Students must take and pass the courses: Research Ethics (0 credit), Laboratory Safety (0 credit), and Lecture on Modern Biomedicine (4 credits).
- (2)According to the regulation of CMU Students’ English Proficiency Assessment, students must pass the English Proficiency requirement before graduation.
(Foreign students excluded)
- (3)Teaching assistant training: All PhD students must complete at least two semester of teaching assistant training.
(Foreign students excluded)
- 2.This list is used as the recognition basis of courses and credits required

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for graduation.

生物科技學系博士班注意事項

- 一、教育目標：1. 以生物科技之創新研究為基礎
2. 培育高級生醫領域之專門研究人才
- 二、115學年度入學新生實施。本系博士班修業3年，最低畢業學分為30學分，含校級必修「現代生物醫學講座」4學分、院級必修「分子醫學」4學分、「進階分子細胞生物學」2學分和系必修4學分，選修4學分，博士論文12學分。
- 三、博士班課程規劃：
博士班修業年限為2至7年，畢業最低學分數為30學分，其中包含：
1. 必修課程（含校級、院級及所級課程）14學分
 2. 選修課程4學分
 3. 博士論文研究12學分
 4. 除各系所修業期間規定之必修課程外，研究生尚須依學校規定完成以下課程訓練：
(1)「實驗室安全」—校級必修課程（碩士班與博士班皆須修習，0學分）
(2)「研究倫理」—校級必修課程（碩士班與博士班皆須修習，0學分）
(3)「現代生物醫學講座」—校級博士班必修課程（4 學分）
(4)「分子醫學」—院級必修課程（碩士班與博士班皆須修習，4學分）
- 四、依中國醫藥大學學生逕修讀博士學位辦法第七條規定：核准逕修讀博士學位之學士學位應屆畢業生至少應修滿36學分，論文學分另計；碩士班學生至少應修滿30學分（含碩士班期間所修學分數，至多採計12學分），論文學分另計；其修讀課程、成績考查及修業年限、學位審查等，自轉入博士班起，悉比照博士班當學年度新生辦理。

單位主管簽章：

Note of Graduate Institute of Biological Science and Technology

*Educational Objectives:

- 1.To establish a foundation in innovative research in biotechnology.
- 2.To cultivate specialized research talents in the advanced biomedical field.

*The doctoral program is a two-to-seven-year course. Minimum credits required for graduation is 30 credits, including 14 credits from required courses (including School-, College-, and Institute-level courses), 4 credits from elective courses and 12 credits of doctoral thesis research.

*Besides taking the required courses as stipulated by each department in the study period, graduate students shall complete the training of the following courses as stipulated by the school:

- (1) “Laboratory safety” – A school-level required course in the Master’s Program and Doctoral Program with 0 credits.
- (2) “Research Ethics” - A school-level required course in the Master’s Program and Doctoral Program with 0 credits
- (3) “Lecture on Modern Biomedicine” - A school-level required course in the Doctoral Program with 4 credits.
- (4) “Molecular medicine” - A college-level required course in the Master’s Program and Doctoral Program with 4 credits.

*According to Article 7 of the Regulations for Direct Admission to the Doctoral Program at China Medical University, a bachelor's degree graduate who is approved for direct admission to the doctoral program must complete at least 36 credits (including required credits from the master's program), with thesis credits calculated separately. A master's degree student must complete at least 30 credits (including credits earned during the master's program), with thesis credits calculated separately.

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人工智能與生物醫學論文研讀 (一)(Special Topics in Artificial Intelligence and Biomedical Research (I))/D0D000031	選(E)	1.0	1.0				所定選修(Elective Courses)	全英文課程(Full English)
高等免疫生技學(Advanced immunology & bio-technology)/D0D000011	選(E)	2.0	2.0				所定選修(Elective Courses)	
貴重儀器原理與實習(practice of biomedical instruments)/D0D000030	選(E)	2.0	2.0				所定選修(Elective Courses)	
新藥開發之智財權規範(Intellectual property rights and regulations of drug development)/D0D000019	選(E)	1.0	1.0				所定選修(Elective Courses)	
人工智能與生物醫學論文研讀 (二)(Special Topics in Artificial Intelligence and Biomedical Research(II))/D0D000032	選(E)	1.0		1.0			所定選修(Elective Courses)	全英文課程(Full English)
高等訊息傳遞路徑(Advanced signal transduction)/D0D000012	選(E)	2.0		2.0			所定選修(Elective Courses)	
進階微生物致病機轉(Advanced Microbial Pathogenesis)/D0D000024	選(E)	2.0		2.0			所定選修(Elective Courses)	全英文課程(Full English)
進階癌症生物學與抗癌藥物(Advanced cancer oncology & anti-cancer drug)/D0D000014	選(E)	2.0		2.0			所定選修(Elective Courses)	全英文課程(Full English)
藥物設計和作用(Drug design and action)/D0D000027	選(E)	2.0		2.0			所定選修(Elective Courses)	全英文課程(Full English)
高等生物晶片技術(Advanced biochip technology)/D0D000017	選(E)	2.0			2.0		所定選修(Elective Courses)	
成功生技產業創業家之專題講座(Lecture on successful biotech entrepreneurship)/D0D000020	選(E)	1.0				1.0	所定選修(Elective Courses)	
高等心臟血管生物學(Advanced cardiovascular biology)/D0D000016	選(E)	2.0				2.0	所定選修(Elective Courses)	
學術論文寫作與發表(Academic writing and integrity)/D0D000023	選(E)	1.0				1.0	所定選修(Elective Courses)	全英文課程(Full English)
合計 選修總學分(Elective subtotal)		21.0	6.0	9.0	2.0	4.0		

- 校內注意事項

一、校級畢業規定
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生物科技學系博士班注意事項

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2. 培育高級生醫領域之專門研究人才

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3. 博士論文研究12學分

4. 除各系所修業期間規定之必修課程外，研究生尚須依學校規定完成以下課程訓練：

(1)「實驗室安全」—校級必修課程（碩士班與博士班皆須修習，0學分）

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(3)「現代生物醫學講座」—校級博士班必修課程（4學分）

(4)「分子醫學」—院級必修課程（碩士班與博士班皆須修習，4學分）

四、依中國醫藥大學學生逕修讀博士學位辦法第七條規定：核准逕修讀博士學位之學士學位應屆畢業生至少應修滿36學分，論文學分另計；碩士班學生至少應修滿30學分（含碩士班期間所修學分數，至多採計12學分），論文學分另計；其修讀課程、成績考查及修業年限、學位審查等，自轉入博士班起，悉比照博士班當學年度新生辦理。

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