

中國醫藥大學 藥學院藥學系博士班 必修 畢業學分認定表 112 學年度入學適用

China Medical University Graduate Institute of Pharmacy Requirement for Ph.D. Program (Applicable for 2023-2024 Enrollees)

| 科目名稱 Course Title | 修別 Type | 學分 Credits | 一年級 1 st year | | 二年級 2 nd year | | 三年級 3 rd year | | 四年級 4 th year | | 五年級 5 th year | | 六年級 6 th year | | 七年級 7 th year | | 課程分類 Category | 備註 Remarks |
|--------------------------------|------------|---------------|-----------------------------|-----|-----------------------------|------|-----------------------------|-----|-----------------------------|-----|-----------------------------|-----|-----------------------------|-----|-----------------------------|-----|---|--|
| | | | 上 | 下 | 上 | 下 | 上 | 下 | 上 | 下 | 上 | 下 | 上 | 下 | 上 | 下 | | |
| | | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | |
| 分子醫學(Molecular medicine) | 必(R) | 2.0 | 2.0 | | | | | | | | | | | | | | 院定必修(College Required Courses) | 1. 院級必修; 2. 全英授課(1. College-level required course; 2. Full English course) |
| 專題討論 (一)(Seminar (I)) | 必(R) | 1.0 | 1.0 | | | | | | | | | | | | | | 所定必修(Required Courses) | 全英授課(Full English Course) |
| 高等藥學(Advanced pharmacy) | 必(R) | 2.0 | | 2.0 | | | | | | | | | | | | | 所定必修(Required Courses) | 外籍生可選修「生物科技學系博士班-藥物設計和作」(International students can take Drug design and action (Course Code:D0D000027) as an alternative) |
| 專題討論 (二)(Seminar (II)) | 必(R) | 1.0 | | 1.0 | | | | | | | | | | | | | 所定必修(Required Courses) | 全英授課(Full English Course) |
| 專題討論 (三)(Seminar (III)) | 必(R) | 1.0 | | | 1.0 | | | | | | | | | | | | 所定必修(Required Courses) | 全英授課(Full English Course) |
| 專題討論 (四)(Seminar (IV)) | 必(R) | 1.0 | | | | 1.0 | | | | | | | | | | | 所定必修(Required Courses) | 全英授課(Full English Course) |
| 博士論文(Ph. D. Dissertation) | 必(R) | 12.0 | | | | 12.0 | | | | | | | | | | | 校定必修-論文(University Required Courses-Thesis) | |
| 專題討論 (五)(Seminar (V)) | 必(R) | 0.0 | | | | | 0.0 | | | | | | | | | | 所定必修(Required Courses) | 全英課程(Full English Course) |
| 專題討論 (六)(Seminar (VI)) | 必(R) | 0.0 | | | | | | 0.0 | | | | | | | | | 所定必修(Required Courses) | 全英課程(Full English Course) |
| 專題討論 (七)(Seminar (VII)) | 必(R) | 0.0 | | | | | | | 0.0 | | | | | | | | 所定必修(Required Courses) | 全英課程(Full English Course) |
| 專題討論 (八)(Seminar (VIII)) | 必(R) | 0.0 | | | | | | | | 0.0 | | | | | | | 所定必修(Required Courses) | 全英課程(Full English Course) |
| 專題討論 (九)(Seminar (VIII)) | 必(R) | 0.0 | | | | | | | | | 0.0 | | | | | | 所定必修(Required Courses) | 全英課程(Full English Course) |
| 專題討論 (十)(Seminar (X)) | 必(R) | 0.0 | | | | | | | | | | 0.0 | | | | | 所定必修(Required Courses) | 全英課程(Full English Course) |
| 專題討論 (十一)(Seminar (XI)) | 必(R) | 0.0 | | | | | | | | | | | 0.0 | | | | 所定必修(Required Courses) | 全英課程(Full English Course) |
| 專題討論 (十二)(Seminar (XII)) | 必(R) | 0.0 | | | | | | | | | | | | 0.0 | | | 所定必修(Required Courses) | 全英課程(Full English Course) |
| 專題討論 (十三)(Seminar (XIII)) | 必(R) | 0.0 | | | | | | | | | | | | | 0.0 | | 所定必修(Required Courses) | 全英課程(Full English Course) |
| 專題討論 (十四)(Seminar (XIV)) | 必(R) | 0.0 | | | | | | | | | | | | | | 0.0 | 所定必修(Required Courses) | 全英課程(Full English Course) |
| 合計 必修總學分(Requirement subtotal) | | 20.0 | 3.0 | 3.0 | 1.0 | 13.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |

校內注意事項

Note of CMU

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。

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.

中國醫藥大學 藥學院藥學系博士班 必修 畢業學分認定表 112 學年度入學適用

China Medical University Graduate Institute of Pharmacy Requirement for Ph.D. Program (Applicable for 2023-2024 Enrollees)

(Foreign students excluded)

2.This list is used as the recognition basis of courses and credits required for graduation.

藥學系博士班注意事項

一、教育目標：以中西醫藥之創新研究與藥學之應用發展，培育高級科技藥學領域之專門研究人才或師資。

二、112學年度入學新生實施，博士班修業2-7年，最低畢業學分為33學分，必修24學分(含博士論文12學分)，選修9學分。

三、畢業前須通過英文鑑定方能畢業。依本校「學生英文能力鑑定實施辦法」規定辦理。

四、修業期間除修習本學程規定應修課程外，尚須完成下列校定課程之研修：

(一)「實驗室安全」-校級必修0學分

(二)「研究倫理」-校級必修0 學分。

(三)「現代生物醫學講座」-校級必修4學分。

(四)「分子醫學」-院級必修2學分：

(1)非臨床藥學背景之外籍生可修國際針灸學程「分子醫學」或國際生物醫學碩士學位學程「分子醫學」；

(2)臨床藥學背景之外籍生可選修「公共衛生學系博士班一年級」之「流行病學」。

五、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)，論文學分另計。

六、本學分表做為畢業學分認定之依據。

Note of Graduate Institute of Pharmacy

1.Educational goals: Cultivate professional research talents and teachers in the field of pharmacy through innovative research on Chinese and Western medicine and the development of pharmaceutical applications.

2.For students enrolled in 2023: The study period of the PhD program ranges between two to seven years. The minimum number of credits required for graduation is 33, including 24 required courses credits (including 12 credits for the Ph.D. Dissertation) and 9 elective courses credits.

3.Students must pass the English Proficiency Standard before graduation, according to the regulation of CMU Students' English Proficiency Assessment.

4.Besides taking the required courses, students shall complete the following courses as stipulated by the university:

(1) Laboratory safety: School-level required course, 0 credits.

(2) Research Ethics: School-level required course, 0 credits.

(3) Lecture on Modern Biomedicine: School-level required course, 4 credits.

(4) Molecular medicine: College-level required course, 2 credits.

a. International students with non-clinical pharmacy background can take "Molecular Medicine" offered by the International Master Program in Acupuncture or the International Master's Program of Biomedical Sciences.

b. International students with clinical pharmacy background can take "Epidemiology" offered in the first-year of PhD program of Department of Public Health.

5.According to the CMU Regulation for the Direct Pursuit of the PhD Degree, undergraduate students approved for PhD degree direct pursuit must complete at least 36 credits, exclude the thesis credit; master students must complete at least 30 credits (including the credits taken during master's study period), exclude the thesis credit.

6.This list is used as the recognition basis of courses and credits required for graduation.

單位主管簽章：

中國醫藥大學 藥學院藥學系博士班 選修 畢業學分認定表 112 學年度入學適用

China Medical University Graduate Institute of Pharmacy Elective for Ph.D. Program (Applicable for 2023-2024 Enrollees)

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列印日期(Date)：112年4月13日

| 科目名稱 Course Title | 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 | | |
| 分子癌症生物學(Molecular cancer biology) | 選(E) | 2.0 | 2.0 | | | | 所定選修(Elective Courses) | 1. 全英授課；2. 與『癌症生物與藥物研發博士學位學程』合班上課(於中研院上課)(Full English Course) |
| 高等生物統計學(Advanced biostatistics) | 選(E) | 2.0 | 2.0 | | | | 所定選修(Elective Courses) | 外籍生可選修「公共衛生國際碩士學位學程-生物統計學」(International students can take Biostatistics(Course Code:M2M00002) as an alternative course.) |
| 高等實證藥學暨臨床試驗(Advanced evidence-based pharmacy & clinical trials) | 選(E) | 2.0 | 2.0 | | | | 所定選修(Elective Courses) | |
| 高等藥事經濟學(Advanced pharmacoconomics) | 選(E) | 2.0 | 2.0 | | | | 所定選修(Elective Courses) | 與『生技製藥產業博士學位學程』合班上課 |
| 高等藥物動力學(Advanced pharmacokinetics) | 選(E) | 2.0 | 2.0 | | | | 所定選修(Elective Courses) | |
| 高等藥品合成(Advanced pharmaceutical synthesis) | 選(E) | 3.0 | 3.0 | | | | 所定選修(Elective Courses) | |
| 高等藥理學(Advanced pharmacology) | 選(E) | 2.0 | 2.0 | | | | 所定選修(Elective Courses) | 全英授課(Full English Course) |
| 高等藥劑學(Advanced pharmaceutics) | 選(E) | 2.0 | 2.0 | | | | 所定選修(Elective Courses) | |
| 聚合物化學及其生醫應用(Macromolecular chemistry and its biomedical application) | 選(E) | 2.0 | 2.0 | | | | 所定選修(Elective Courses) | 全英授課(Full English Course) |
| 醣類藥物研發(Carbohydrate-based drug discovery) | 選(E) | 2.0 | 2.0 | | | | 所定選修(Elective Courses) | |
| 藥物設計與研發(Drug design and development) | 選(E) | 2.0 | 2.0 | | | | 所定選修(Elective Courses) | 1. 全英授課；2. 與『生物醫學研究所碩士班』合班上課(Full English Course) |
| 高等生技製藥儀器應用(Advanced biomedicine instrument application) | 選(E) | 2.0 | | 2.0 | | | 所定選修(Elective Courses) | |
| 高等生藥學(Advanced pharmacognosy) | 選(E) | 2.0 | | 2.0 | | | 所定選修(Elective Courses) | 外籍生可選修「中國藥學暨中藥資源學系碩士班-中國藥材學特論」(International students can take Special topics on Chinese materia medica(Course Code:46M000137) as an alternative course.) |
| 高等優良製造規範(Advanced GMP) | 選(E) | 2.0 | | 2.0 | | | 所定選修(Elective Courses) | 與『生技製藥產業博士學位學程』合班上課 |
| 高等臨床藥學(Advanced clinical pharmacy) | 選(E) | 2.0 | | 2.0 | | | 所定選修(Elective Courses) | |
| 高等藥物分析(Advanced pharmaceutical analysis) | 選(E) | 2.0 | | 2.0 | | | 所定選修(Elective Courses) | 與『生技製藥產業博士學位學程』合班上課 |
| 組合化學(Combinatorial chemistry) | 選(E) | 2.0 | | 2.0 | | | 所定選修(Elective Courses) | |
| 論文寫作與研究計劃撰寫(Scientific writing) | 選(E) | 1.0 | | 1.0 | | | 所定選修(Elective Courses) | 1. 全英授課；2. 與『老化醫學博士學位學程及基醫所博士班』合班上課(Full English Course) |
| 高等健保研究資料庫資料處理(Advanced information processing of national health insurance) | 選(E) | 2.0 | | | 2.0 | | 所定選修(Elective Courses) | |
| 高等臨床藥學研究方法(Advanced special on clinical pharmacy research) | 選(E) | 2.0 | | | 2.0 | | 所定選修(Elective Courses) | 授課方式分AB班:A班-中文, 及B班-英文(International students can take B course.) |
| 高等藥物化學(Advanced pharmaceutical and medicinal chemistry) | 選(E) | 2.0 | | | 2.0 | | 所定選修(Elective Courses) | |
| 合計 選修總學分(Elective subtotal) | | 42.0 | 23.0 | 13.0 | 6.0 | | | |

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)
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China Medical University Graduate Institute of Pharmacy Elective for Ph.D. Program (Applicable for 2023-2024 Enrollees)

藥學系博士班注意事項

Note of Graduate Institute of Pharmacy

一、教育目標：以中西醫藥之創新研究與藥學之應用發展，培育高級科技藥學領域之專門研究人才或師資。

二、112學年度入學新生實施，博士班修業2-7年，最低畢業學分為33學分，必修24學分(含博士論文12學分)，選修9學分。

三、畢業前須通過英文鑑定方能畢業。依本校「學生英文能力鑑定實施辦法」規定辦理。

四、修業期間除修習本學程規定應修課程外，尚須完成下列校定課程之研修：

(一)「實驗室安全」-校級必修0學分

(二)「研究倫理」-校級必修0學分。

(三)「現代生物醫學講座」-校級必修4學分。

(四)「分子醫學」-院級必修2學分：

(1)非臨床藥學背景之外籍生可修國際針灸學程「分子醫學」或國際生物醫學碩士學位學程「分子醫學」；

(2)臨床藥學背景之外籍生可選修「公共衛生學系博士班一年級」之「流行病學」。

五、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)，論文學分另計。

六、本學分表做為畢業學分認定之依據。

1.Educational goals: Cultivate professional research talents and teachers in the field of pharmacy through innovative research on Chinese and Western medicine and the development of pharmaceutical applications.

2.For students enrolled in 2023: The study period of the PhD program ranges between two to seven years. The minimum number of credits required for graduation is 33, including 24 required courses credits (including 12 credits for the Ph.D. Dissertation) and 9 elective courses credits.

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4.Besides taking the required courses, students shall complete the following courses as stipulated by the university:

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(2) Research Ethics: School-level required course, 0 credits.

(3) Lecture on Modern Biomedicine: School-level required course, 4 credits.

(4) Molecular medicine: College-level required course, 2 credits.

a. International students with non-clinical pharmacy background can take "Molecular Medicine" offered by the International Master Program in Acupuncture or the International Master's Program of Biomedical Sciences.

b. International students with clinical pharmacy background can take "Epidemiology" offered in the first-year of PhD program of Department of Public Health.

5.According to the CMU Regulation for the Direct Pursuit of the PhD Degree, undergraduate students approved for PhD degree direct pursuit must complete at least 36 credits, exclude the thesis credit; master students must complete at least 30 credits (including the credits taken during master's study period), exclude the thesis credit.

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單位主管簽章：