

| 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 | | |
| 分子癌症生物學(Molecular Cancer Biology)/DGD000028 | 必(R) | 2.0 | 2.0 | | | | 所定必修(Required Courses) | 全英授課(English-taught course) |
| 分子醫學(Molecular medicine)/BAD000013 | 必(R) | 4.0 | 4.0 | | | | 院定必修(College Required Courses) | 全英授課(English-taught course) |
| 專題討論(Seminar)/BAD000015 | 必(R) | 1.0 | 1.0 | | | | 所定必修(Required Courses) | 全英授課(English-taught course) |
| 專題討論(Seminar)/BAD000016 | 必(R) | 1.0 | | 1.0 | | | 所定必修(Required Courses) | 全英授課(English-taught course) |
| 專題討論(Seminar)/BAD000017 | 必(R) | 1.0 | | | 1.0 | | 所定必修(Required Courses) | 全英授課(English-taught course) |
| 專題討論(Seminar)/BAD000018 | 必(R) | 1.0 | | | | 1.0 | 所定必修(Required Courses) | 全英授課(English-taught course) |
| 博士論文(Ph. D. Dissertation)/DGD000018 | 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 for graduation.

轉譯醫學暨新藥開發研究所博士班注意事項

一、教育目標：

1. 培育能利用藥物研究資源與方法達到新藥開發目標的人才。

2. 培育具有邏輯思辨專業、能設計並執行相關實驗技術的人才。

3. 培育能整合創新生物科技與製藥專業知識、富創業精神的人才。

4. 培育符合生技醫藥產業發展趨勢所需的人才。

二、核心能力

1. 具備新藥開發相關之轉譯醫學能力。

2. 具備設計試驗、完成實驗、分析數據與衍論結果、應用研究成果的能力。

3. 具備良好之撰寫研究計畫、報告與論文、以專業語言溝通的能力。

4. 瞭解生技醫藥產業，結合醫藥品開發相關之理論與實務的能力。

三、113年度入學新生實施，最低畢業學分為32學分(含必修14學分、選修6學分、博士論文12學分)。

Note of Institute of Translational Medicine and New Drug Development--Doctoral Program

1.The doctoral program is a two-to-seven-year course. Minimum credits required for graduation is 32 credits, including 4 credits from Lecture on Modern Biomedicine, 4 credits from Molecular medicine, 4 credits from Seminar and 2 credits from Molecular cancer biology , as well as 6 credits from elective courses and 12 credits of doctoral thesis research.

2. 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.

單位主管簽章：

| 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 | | |
| 高等腫瘤生物學 (I)(Advanced tumor biology (I))/DGD000023 | 選(E) | 2.0 | 2.0 | | | | 所定選修(Elective Courses) | |
| 超分子化學之生物應用(Biological Applications of Supramolecular Chemistry)/DGD000027 | 選(E) | 2.0 | 2.0 | | | | 所定選修(Elective Courses) | 全英授課(English-taught course) |
| 臨床癌症與轉譯醫學(Clinical oncology & translation medicine)/BAD000014 | 選(E) | 2.0 | 2.0 | | | | 所定選修(Elective Courses) | |
| 轉譯醫學暨生醫製藥科技講座(一)(Lecture of translational medicine & biomedical pharmaceutical technology I)/DGD000031 | 選(E) | 1.0 | 1.0 | | | | 所定選修(Elective Courses) | |
| 真核生物基因轉錄與表觀調控(Mechanisms of transcriptional regulation and epigenetic control)/DGD000030 | 選(E) | 1.0 | | 1.0 | | | 所定選修(Elective Courses) | 全英授課(本課程依據國外學者至本校短期交流期間開設系列課程) (English-taught course) |
| 高等腫瘤生物學 (II)(Advanced tumor biology (II))/DGD000024 | 選(E) | 2.0 | | 2.0 | | | 所定選修(Elective Courses) | |
| 轉譯醫學暨生醫製藥科技講座(二)(Lecture of translational medicine & biomedical pharmaceutical technology II)/DGD000032 | 選(E) | 1.0 | | 1.0 | | | 所定選修(Elective Courses) | |
| 醫學影像系統(Medical imaging system)/DGD000026 | 選(E) | 2.0 | | 2.0 | | | 所定選修(Elective Courses) | |
| 非編碼核糖核酸學:生物功能及治療應用(Non-coding RNAs: biological functions and therapeutic applications)/DGD000021 | 選(E) | 2.0 | | | 2.0 | | 所定選修(Elective Courses) | 全英授課(English-taught course) |
| 新藥臨床前開發實務(Practice of Preclinical Drug Development)/DGD000019 | 選(E) | 2.0 | | | 2.0 | | 所定選修(Elective Courses) | 全英授課(English-taught course) |
| 表觀遺傳學:生物機制及應用(Epigenetics:mechanisms and applications)/DGD000020 | 選(E) | 2.0 | | | | 2.0 | 所定選修(Elective Courses) | 全英授課(English-taught course) |
| 進階藥物動力學(Advanced applied pharmacokinetics)/DGD000015 | 選(E) | 2.0 | | | | 2.0 | 所定選修(Elective Courses) | 全英授課(English-taught course) |
| 合計 選修總學分(Elective subtotal) | | 21.0 | 7.0 | 6.0 | 4.0 | 4.0 | | |

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 for graduation.

轉譯醫學暨新藥開發研究所博士班注意事項

Note of Institute of Translational Medicine and New Drug
Development--Doctoral Program

一、教育目標：

1. 培育能利用藥物研究資源與方法達到新藥開發目標的人才。
2. 培育具有邏輯思辨專業、能設計並執行相關實驗技術的人才。
3. 培育能整合創新生物科技與製藥專業知識、富創業精神的人才。
4. 培育符合生技醫藥產業發展趨勢所需的人才。

二、核心能力

1. 具備新藥開發相關之轉譯醫學能力。
2. 具備設計試驗、完成實驗、分析數據與衍論結果、應用研究成果的能力。
3. 具備良好之撰寫研究計畫、報告與論文、以專業語言溝通的能力。
4. 瞭解生技醫藥產業，結合醫藥品開發相關之理論與實務的能力。

三、113年度入學新生實施，最低畢業學分為32學分(含必修14學分、選修6學分、博士論文12學分)。

1. The doctoral program is a two-to-seven-year course. Minimum credits required for graduation is 32 credits, including 4 credits from Lecture on Modern Biomedicine, 4 credits from Molecular medicine, 4 credits from Seminar and 2 credits from Molecular cancer biology, as well as 6 credits from elective courses and 12 credits of doctoral thesis research.

2. 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.

單位主管簽章：