

長庚大學 生物醫學研究所博士班 天然藥物組 必選修科目表 (一一〇學年度入學學生適用)  
Graduate Program Ph.D Curriculum in Natural Products division (2021~2022)

領域/組別 Divisions	必/選修 Required (R) or Elective (E)	科目名稱 Course Title	學分 Credit	開課 年級 Year	上學期 Fall	下學期 Spring	備註Note	授課負責人 Instructor
共同必修科目 General Required Courses	R	書報討論 (英文授課) Seminar(taught in English)	8	1-4	4	4	一~四年級必修，共八學分。如提前完成學位考試及畢業手續，該學期及之後學分得免修。一~四年級間，若至其他研究機構或業界研習，學生須提出申請，經生醫所核定，該學期可免修。	陳金銓
	R	醫學新知導論 Current Topics in Biomedical Sciences	2	1	2		左列科目為博士班核心課程，為必修三選一 Core courses for the Ph.D. program. Completion of at least one course is required (starting in 2010).	林光輝
	R	科學研究方法 Scientific Methods	2	1		2		黎欣白
	R	科學倫理與論文寫作 (英文授課) Scientific Integrity and Scientific Writing(taught in English)	2	2		2		施信如
	R	撰寫論文	0	2	0	0		
天然藥物組 Division of Natural Products	R	高等藥物生物技術特論 Special Topics in Pharmaceutical Biotechnology	2	1	2			陳金銓
	R	高等天然藥物學特論 Special Topics in Natural Products	2	1		2		呂彥禮
選修課程 Elective courses	E	高等劑型設計特論 Special Topics in Dosage form Design	2	1	2			方嘉佑
	E	天然物與血栓平衡 Natural Products and The Balance of Thrombosis	2	1	2			廖庠睿
	E	藥效學特論 Special Topics in Pharmacodynamics	2	1		2	碩博合開課程 Offered jointly with the MS program	黃聰龍
	E	製藥生技學特論 Special Topics in Industrial Pharmaceutical Biotechnology	2	1		2	碩博合開課程 Offered jointly with the MS program	謝珮文
	E	發炎藥理學特論 Special Topics in Inflammopharmacology	2	1	2			黃聰龍
	E	藥廠與專利申請實務特論 Special Topics in The Pharmaceutical Factory and Patent Application	2	2	2		碩博合開課程 Offered jointly with the MS program	謝珮文
	E	中藥資訊研究 Information Studies of Traditional Chinese Medicine	2		2		碩博合開課程 Offered jointly with the MS program	廖庠睿
E	高等藥物化學特論 Special Topics in Advanced Medicinal Chemistry	2	2	2			謝珮文	

E	高等基因藥理學特論 Special Topics in Pharmacogenomics	2	2		2	從110學年開始改為隔年開設(110學年開)offered bi-annually, starting in 2021(offered in 2022)	陳金銓
E	表觀遺傳學特論 Special Topics in Epigenetics	2	2		2	從110學年開始改為隔年開設(110學年不開)offered bi-annually, starting in 2021(offered in 2023)	陳金銓
E	中草藥產業技術開發 Industrial Development of Chinese Medicine and Herbal Drugs	2	2		2	碩博合開課程 Offered jointly with the MS program	方嘉佑
E	藥理學特論 Special Topics in Pharmacology	2	2		2	碩博合開課程 Offered jointly with the MS program	馬蘊華

備註  
NOTE

1. 畢業學分：18學分(不含論文6學分) Students pursuing a PhD degree must fulfill a minimum 18 credits in course work and 6 credits for the PhD thesis.
2. 必修學分：14學分(不含論文)。共同必修至少6學分(須含核心課程2學分)、本組必修4學分，碩士班直攻博士班之學生，畢業時需達24學分(不含論文6學分)。Minimum compulsory credits for students in the Natural Products division are 14 credits.
3. 「撰寫論文」於博二開始為必修課程，「博士論文」學分(6)於通過學位考試並繳交通過審核論文後給予。The 6 credits for the “PhD Dissertation” are given only after completion and passing of the thesis defense.
4. 學生所選欲修習之科目，需經過指導老師之同意及簽名。Course selection and registration should be approved and signed by the thesis mentor.
5. 碩士生直攻博士班天然藥物組學生認可最多8個碩士班學分。For students with direct admission to the PhD program, up to 8 credits of courses can count towards graduation.
6. 本組認可臨床醫學研究所博士班課程，皆可列為選修學分。Accredited to take courses offered by doctoral programs in Graduate Institute of Clinical Medical Sciences.
7. 書報討論課程於修滿四學分且提前通過學位考試者可免修，但仍需補足畢業學分。列於本所必修科目表之課程皆可納入畢業學分核算。經指導老師同意，亦可選修本校其他博士班課程以達畢業總學分數要求，唯非本所課程之總學分數不可超過畢業學分數中選修總學分數之百分之五十。直攻博士班之學生，畢業時需達30學分(不含論文6學分)。Seminar is a required course for students in the third year or beyond (8 credits maximum). All courses listed above as well as other approved courses offered by the Clinical Medicine Graduate Program Division of Clinical Medicine can be taken to fulfill the requirements for elective courses. Students with direct admission to the PhD program should fulfill a graduation requirement of 30 credits (plus 6 credits for the dissertation), respectively.
8. 認可選修本校其他博士班英文授課之課程，不可超過選修總學分數之百分之五十。Accredited to take courses in English courses offered by other doctoral programs in the school, no more than 50% of the total scores of the elective courses.
9. 本所外籍博士生畢業要求為18學分(不含論文6學分)，必修科目為書報討論課程8學分(一~四年上下學期，1學分/學期)，其餘可在指導教授協助規劃下選擇本表單上的相關科目。For international students in the Ph.D. program, the 18-credits requirement can be fulfilled by any courses in the above list, plus the seminar courses (8 credits total) and 6 credits of the “PhD Thesis”. Course selection should be consulted with and approved by the research adviser.
10. 畢業要求資訊請見當年度學生手冊。See PhD student manual for graduation requirements.