

中國醫藥大學 醫學院 生物醫學研究所博士班 必選修課程學分表 107 學年度入學適用  
 China Medical University Graduate Institute of Biomedical Sciences  
 Curriculum for Doctoral Program

The confirmation form of graduation credits for 107 school year

Course Name	Teacher	Type	Credits	First year		Second year		Remarks
				Semester				
				1	2	1	2	
Lecture on modern biomedicine		Required	4	1	1	1	1	校級必修 School-level required course
Research ethics		Required	0	0				校級必修 School-level required course
Laboratory safety		Required	0	0				校級必修 School-level required course
Molecular medicine		Required	4	4				院級必修 College-level required course
Seminar	全所老師 All the teachers	Required	3	1	1	1		全英授課 Full-English course
Ph.D.Thesis		Required					12	
合計 必修總學分 Total Required Credits			11					
分子化學暨細胞生物學組 Molecular And Cellular Biology Group								
Advanced molecular cell biology	陳慧婕等 Hui-Jye Chen etc.	Elected	2	2				分生組核心選修課 MCB Group Core Course 全英授課 Full-English course
Seminar in molecular pharmacology(I)(II)(II)(IV)	湯智昕 Chih-Hsin Tang	Elected	4	1	1	1	1	

Seminar in cytoskeleton (I)(II)	陳慧婕 Hui-Jye Chen	Elected	2	1	1			
Advanced seminar in molecular cardiology (I)(II)(III)(IV)	黃志揚 Chih-Yang Huang	Elected	4	1	1	1	1	全英授課 Full-English course
Advanced biomedical research technique	洪慧珊 Huei-Shan Hung	Elected	2	2				
Advanced computational biology	陸志豪 Chih-Hao Lu	Elected	2	2				
Advanced stem cell biology	朱志成 Jyh-Cherng Ju	Elected	2	2				
Molecular imaging	謝佳宏 Chia-Hung Hsieh	Elected	2	2				
Advanced nanobiomedicine	洪慧珊 Huei-Shan Hung	Elected	2		2			
Advanced vesicular trafficking	陳慧婕 Hui-Jye Chen	Elected	2		2			
Special topics on transgenic & knockout mice	劉詩平 Shih-Ping Liu	Elected	2		2			
Advanced embryo cloning and pluripotent stem cells	朱志成 Jyh-Cherng Ju	Elected	2		2			全英授課 Full-English course
Computer-aided drug design	陸志豪 Chih-Hao Lu	Elected	2		2			
Advanced molecular pathology of atherosclerosis	汪貴珍 Guei-Jane Wang	Elected	2		2			

神經科學組

Neural Science Group

Cognitive neuroscience	簡惠玲等 Sarina Hui-Lin Chien etc.	Elected	3	3				神經科學組核心選修課，可供 碩士班上修 NS Group Core Course Upper-level Courses for Graduate Student
Neuroscience	周寧等 Ning Zhou etc.	Elected	2	2				神經科學組核心選修課，可供 碩士班上修 NS Group Core Course Upper-level Courses for Graduate Student
Human face perception	簡惠玲 Sarina Hui-Lin Chien	Elected	2	2				<b>全英授課</b> <b>Full-English course</b>
Mind-body interface(I)(II)(III)(IV)	蘇冠賓 Kuan-Pin Su	Elected	8	2	2	2	2	
Seminar in perception and attention (I)(II)(III)(IV)	李金鈴 Jing-Ling Li	Elected	4	1	1	1	1	
Advance seminar in developmental neuroscience (I) (II)	張璿云 Sunny LY Chang	Elected	2	1	1			
Seminars of translational psychiatry (I)(II)(III)(IV)	蘇冠賓 Kuan-Pin Su	Elected	4	1	1	1	1	<b>全英授課</b> <b>Full-English course</b>
Developmental Neuroscience	張璿云 Sunny LY Chang	Elected	2		2			
高階螢光顯微技術-原理與應用 Advanced fluorescence microscopy - fundamentals and applications	周寧 Ning Zhou	Elected	2		2			課程名稱簡寫：高階螢光顯 微技術
Ion channels and disease	吳東川 Dong Chuan Wu	Elected	2		2			<b>全英授課</b> <b>Full-English course</b>
微生物暨免疫學組								

Microbiology and Immunology Group								
Seminar in inflammation and innate immunity(I)(II)(III)(IV)	陳惠珍 Hui-Chen Chen	Elected	4	1	1	1	1	MI Group Core Course
Special topics on autoimmune diseases (I)(II)(III)(IV)	徐婕琳 Jye-Lin Hsu	Elected	4	1	1	1	1	MI Group Core Course
Application and practice in human embryonic and somatic stem cells	邱紹智 Shao-Chih Chiu	Elected	1	1				暑期上課 Summer vacation course
Neuroimmunology	傅如輝 Ru-Huei Fu	Elected	2	2				全英授課 Full-English course
Principle and practice of biomedical Instruments	蘇文琪等 Wen-Chi Su etc.	Elected	2	2				暑期上課 Summer vacation course
Pharmacoepidemiology	周煦文 Hsu-Wen Chou	Elected	2	2				
Special topics of pathogenic viruses	蘇文琪 Wen-Chi Su	Elected	2	2				
Biomedical research based on big data bases	許重義 Chung Y. Hsu	Elected	2	2				
Biomethodology of tumor cell biology	黃文欽 Wen-Chin Huang	Elected	2	2				全英授課 Full-English course
Optogenetics	傅如輝 Ru-Huei Fu	Elected	2		2			
Scientific writing	陳惠珍 Hui-Chen Chen	Elected	1		1			
Tumor development & progression	黃文欽 Wen-Chin Huang	Elected	2		2			全英授課 Full-English course

Tumor medicine	謝佳宏 Chia-Hung Hsieh	Elected	2		2			
Special topics on tumor immunology	邱紹智 Shao-Chih Chiu	Elected	2	2				
<b>腫瘤醫學組</b> <b>Tumor Medicine Group</b>								
Clinical oncology & translation medicine	黃偉謙 Wei-Chien Huang	Elected	2	2				腫瘤醫學組核心選修課 TM Group Core Course
Molecular Cancer biology	余永倫 Yung-Luen Yu	Elected	2	2				腫瘤醫學組核心選修課 TM Group Core Course
Data analysis of next generation sequencing (I) (II)	鄭維中 Wei-Chung Cheng	Elected	4	2	2			
Chromatin remodeling and cancer (I)(II)(III)(IV)	鄒瑞煌 Ruey-Hwang Chou	Elected	4	1	1	1	1	
Advanced cancer pharmacology (I)(II)	黃偉謙 Wei-Chien Huang	Elected	4	2	2			全英授課 Full-English course
Genomic instability and cancer	王紹椿 Shao-Chun Wang	Elected	2	2				全英授課 Full-English course
Advanced oncoprotein post-translational modification (I)(II) (III)(IV)	余永倫 Yung-Luen Yu	Elected	4	1	1	1	1	
Advanced traditional chinese herbal medicines and cancer treatment (I)(II)(III)(IV)	劉哲育 Jer-Yuh Liu	Elected	4	1	1	1	1	全英授課 Full-English course
Cancer epigenetics (I)(II) (III)(IV)	黃偉謙 Wei-Chien Huang	Elected	4	1	1	1	1	

Cancer epigenomics(I)(II)	黃偉謙 Wei-Chien Huang	Elected	2	1	1		
Cancer signaling pathways	鄒瑞煌 Ruey-Hwang Chou	Elected	2	2			
Regulation of cell death in cancer	陳雅惠 Ya-Huey Chen	Elected	2		2		
<b>臨床醫學組 Clinical Medicine Group</b>							
Clinical & basic research practice (I)(II)	李繼源 Chi-Yuan Li	Elected	2	1	1		臨床醫學組核心選修課 CM Group Core Course
Integrated course in clinical & basic medicine	藍先元等 Hsien-Yuan Lane etc.	Elected	2	2			暑假上課 Summer vacation course 臨床醫學組核心選修課 CM Group Core Course
Translational journal paper analysis	佘玉萍 Yuh-Pyng Sher	Elected	2		2		臨床醫學組核心選修課 CM Group Core Course
Study design & proposal	李繼源 Chi-Yuan Li	Elected	2	2			臨床醫學組核心選修課 CM Group Core Course
Translational medicine in practice	馬文隆 Wen-Lung Ma	Elected	2	2			臨床醫學組核心選修課 CM Group Core Course
Getting start writing, submitting and evaluating translational scientific papers	包大羶 Ba-Tian Bau	Elected	2	2			臨床醫學組核心選修課 CM Group Core Course
Clinical epidemiology	吳俊穎 Chun-Ying Wu	Elected	2		2		臨床醫學組核心選修課 CM Group Core Course
Theory and practice of translation medicine (I)(II)	包大羶 Ba-Tian Bau	Elected	2	1	1		臨床醫學組核心選修課 CM Group Core Course

Clinical trials	許重義 Chung Y. Hsu	Elected	2		2			臨床醫學組核心選修課 CM Group Core Course
Advanced blood vessel and metabolism (I)(II)	汪貴珍等 Guei-Jane Wang etc.	Elected	4	2	2			
Advanced cardiovascular pharmacology	沈明毅等 Ming-Yi Shen etc.	Elected	2		2			
Seminar in neuroglia (I)(II)(III)(IV)	周寧 Ning Zhou	Elected	4	1	1	1	1	
Neuroelectrophysiology (I)(II)(III)(IV)	吳東川 Dong Chuan Wu	Elected	4	1	1	1	1	
Systems molecular cancer pathology	馬文隆 Wen-Lung Ma	Elected	2				2	
Seminar in drug discovery (I)(II)(III)(IV)	賴威達 Ted Weita Lai	Elected	4	1	1	1	1	
Advanced principles and applications of molecular biotechnology	蘇文琪 Wen-Chi Su	Elected	2	2				暑假上課 Summer vacation course
Molecular biotechniques practice	蘇文琪 Wen-Chi Su	Elected	2	2				暑假上課 Summer vacation course
Seminar in the modern translational endocrinology(I)(II)(III)(IV)	馬文隆 Wen-Lung Ma	Elected	4	1	1	1	1	
Advanced seminar in cardiovascular sciences (I)(II)(III)(IV)	汪貴珍 Guei-Jane Wang	Elected	4	1	1	1	1	

注意事項：

一、教育目標：(1)培養醫學科學家。(2)培育具有國際觀之人才。

二、107 學年度入學新生實施，本所修業 2 年至 7 年，畢業至少需修習 31 學分始可畢業。必修 11 學分(含校級必修、院級必修、所定必修)，博士論文 12 學分、選修 8 學分(含各組核心選修)。另其他可依學生興趣及研究方向修習本所各組選修課程或他所之課程。

三、各組修課規定：除應修習必修學分外，各組學生需從核心選修課程中，至少擇一門課修習(如該課程有分上、下學期，則皆需修畢，始可認列)，加上選修課程後，始可畢業。

四、研究生修業期間除修習各系所規定應修課程外，尚須完成下列校定課程之研修：

(1)「實驗室安全」-碩博士班校級必修 0 學分。

(2)「研究倫理」-碩博士班校級必修 0 學分。

(3)「現代生物醫學講座」-博士班校級必修 4 學分。

(4)「分子醫學」-碩博士班院級必修 4 學分。

五、畢業前必須通過英文鑑定，方能畢業。相關規定依本校「學生英文能力鑑定實施辦法」辦理。

六、本學分表做為畢業學分認定之依據。畢業授予學位名稱為理學博士。

七、修讀「醫學工程與復健科技產業博士學位學程」、「生物科技產業博士學位學程」及「生技製藥產業博士學位學程」、「生醫科技產業博士學位學程」、「健康科技產業博士學位學程」者，需完成該學程規定之畢業條件，方能畢業。

Curriculum for Doctoral Program:

1. The doctoral program is a two-to-seven-year course. Minimum credits required for graduation is 31 credits, including 11 credits from required courses, 8 credits from elective courses and 12 credits of doctoral thesis research.

2. Each group should take **at least one Core Course (two credits)**.

3. 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.

4. This is the confirmation form of graduation credits for 107 school year, students enrolled within August 2018 to July 2019 should follow this document when count graduation credits. Graduated students will granted Doctor of Philosophy program in Graduate Institute of Biomedical Sciences.

