

中國醫藥大學 醫學院生物醫學研究所碩士班 必修畢業學分認定表 111 學年度入學適用

China Medical University Master Program in Graduate Institute of Biomedical Sciences Requirement for Master Program (Applicable for 2022-2023 Enrollees)

第 1 頁 / 共 1 頁

列印日期(Date)：114年4月15日

科目名稱/課號 Course Title/Course ID	修別 Type	學分 Credits	一年級 Freshman		二年級 Sophomore		可供博士班下修 (請打勾) Available for Ph.D. Program (check)	可供學士班上修 (請打勾) Available for Undergraduate (check)	課程分類 Category	備註 Remarks
			上	下	上	下				
			1	2	1	2				
分子醫學(Molecular medicine)/D4D000136	必(R)	4.0	4.0						院定必修(College Required Courses)	院級必修，請至博士班選課(College Required Full English Course)
專題討論(一)(Seminar (I))/M9M000027	必(R)	1.0	1.0						所定必修(Required Courses)	全英文授課(Full English Course)
專題討論(二)(Seminar (II))/M9M000028	必(R)	1.0		1.0					所定必修(Required Courses)	全英文授課(Full English Course)
碩士論文(M. S. Thesis)/M9M000066	必(R)	6.0				6.0			校定必修-論文(University Required Courses-Thesis)	
合計 必修總學分 (Requirement subtotal)		12.0	5.0	1.0		6.0				

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學分及「研究倫理」0學分課程。

(二)須通過校定碩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：碩士生須完成至少1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。

University requirement for graduation

(1)Students must take and pass the courses Research ethics and Laboratory safety. (0 credit courses)

(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 Master students must complete at least one semester of teaching assistant training.

(Foreign students excluded)

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

生物醫學研究所碩士班注意事項

Note of Master Program in Graduate Institute of Biomedical Sciences

注意事項：

1、教育目標：(1)強化學生生物醫學與生物資訊專業知識。(2)培養學生獨立思考、具有發覺及解決問題能力。(3)培育具有國際觀之人才。

2、111學年度入學新生實施，本所修業1年至4年。

3、本所學位規定應修學分，至少應修30學分(含碩士論文6學分)始得畢業。必修6學分{含院級必修4學分}、論文6學分、選修18學分{需有9學分為本所開設之學分(含各組選修課程)}

4、新生須於一年級第二學期開學前繳交選定教學分組申請書，並經指導教授與所長同意始確立組別。於期限內繳交者得於碩士學位考前申請換組乙次；逾期繳交者不得申請換組。

5、各組修課規定：除應修習必修學分外，各組學生需從該組選修課程中，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)，加上其他選修課程後，始可畢業。

6、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)「分子醫學」-碩博士班院級必修4學分

7、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。(外籍生免修)

1.Educational goals: (1) To strengthen students' professional knowledge of biomedicine and bioinformatics. (2) Cultivate students' ability to think independently, discover and solve problems. (3) Cultivate talents with global perspective.

2.For students enrolled in 2022: The Master's program is a one-to-four-year course.

3.Minimum credits required for graduation is 30 credits, including 6 credits from required courses (must include 4 credits from College required courses), 18 credits from elective courses (must include 9 credits of GIBS courses) and 6 credits of Master's thesis research.

4.Students need to submit Curriculum Group application before the start of 2nd semester of the 1st academic year. Students submit on time are allowed to apply for Curriculum Group change once before applying for thesis defense for M.S. degree. Those fail to submit application on time are not allowed to change Curriculum Group. If a student applies for change of Curriculum Group, he/she needs to get the consent signature of the adviser and the head of the department/institute.

5.Student should pass at least 1 elective course of the selected Curriculum Group. If the course has more than one lectures offered in different semester, students should pass all the lectures.

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

7.Students must pass the English Proficiency Standard before graduation, according to the regulation of CMU Students' English Proficiency Assessment.(Foreign students excluded)

單位主管簽章：

中國醫藥大學 醫學院生物醫學研究所碩士班 選修畢業學分認定表 111 學年度入學適用

China Medical University Master Program in Graduate Institute of Biomedical Sciences Elective for Master Program (Applicable for 2022-2023 Enrollees)

科目名稱/課號 Course Title/Course ID	修別 Type	學分 Credits	一年級 Freshman		二年級 Sophomore		可供博士班下修 (請打勾) Available for Ph.D. Program (check)	可供學士班上修 (請打勾) Available for Undergraduate (check)	課程分類 Category	備註 Remarks
			上	下	上	下				
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RNA修飾特論(一)(Special topics on RNA modifications (I))/M9M000159	選(E)	1.0	1.0						所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
人類菌相專題(Special topic of the human microbiota)/M9M000106	選(E)	2.0	2.0						所定選修(臨床醫學組)(GIBS course (clinical medicine group))	
小鼠胚胎發育解剖學(Anatomy & embryology of the mouse)/M9M000003	選(E)	2.0	2.0						所定選修(神經科學組)(GIBS courses(neuroscience group))	
中草藥與免疫學特論(Special topics on herb/phytochemicals & immunology)/M9M000004	選(E)	2.0	2.0						所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	
分子細胞生物學(Molecular cell biology)/M9M000006	選(E)	3.0	3.0						所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	全英文授課(Full English Course)
分子藥理學特論(一)(Special topics on molecular pharmacology (I))/M9M000133	選(E)	1.0	1.0						所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	全英文授課(Full English Course)
生物力學傳遞路徑(Mechanotransduction of cells through cell-substrate interactions)/M9M000144	選(E)	2.0	2.0						所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	
生物技術研究法(Biomedical research technique)/M9M000008	選(E)	2.0	2.0						所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	
生物基礎統計(Biostatistics)/M9M000090	選(E)	2.0	2.0						所定選修(臨床醫學組)(GIBS course (clinical medicine group))	
生物資訊資料庫(Bioinformatic database)/M9M000154	選(E)	2.0	2.0						所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	
自體免疫疾病研究特論(一)(Special topics on autoimmune diseases (I))/M9M000112	選(E)	1.0	1.0						所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	全英文授課(Full English Course)
血栓與發炎研究新趨勢(New research trends in thrombosis & inflammation)/M9M000012	選(E)	2.0	2.0						所定選修(臨床醫學組)(GIBS course (clinical medicine group))	
免疫學特論(一)(Special topics on immunology (I))/M9M000014	選(E)	2.0	2.0						所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	
肝癌研究專題討論(一)(Seminars in liver cancer research (I))/M9M000108	選(E)	2.0	2.0						所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	
乳腺癌生物學和治療(一)(Breast cancer biology and therapy (I))/M9M000155	選(E)	1.0	1.0						所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
呼吸道免疫學專題討論(一)(Seminar in respiratory immunology (I))/M9M000016	選(E)	1.0	1.0						所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	
奈米生物科技與再生醫學特論(Special topics on nanobiotechnology & regeneration medicine)/M9M000020	選(E)	2.0	2.0						所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	
疫苗學特論(Special topics on vaccinology)/M9M000022	選(E)	2.0	2.0						所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	
科學性文章賞析與撰寫(一)(Scientific paper writing (I))/M9M000064	選(E)	1.0	1.0						所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	

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致癌基因與標靶治療特論(一)(Special topics on oncogene & cancer target therapy (I))/M9M000117	選(E)	1.0	1.0						所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
計算生物學(Computational biology)/M9M000023	選(E)	3.0	3.0						所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	
哺乳類胚與動物複製技術(Embryo & animal cloning technology)/M9M000024	選(E)	2.0	2.0						所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	全英文授課(Full English Course)
神經科學(Neuroscience)/M9M000104	選(E)	2.0	2.0						所定選修(神經科學組)(GIBS courses(neuroscience group))	全英文授課(Full English Course)
脂質學之現代觀點(Current opinion in lipidology)/M9M000087	選(E)	2.0	2.0						所定選修(臨床醫學組)(GIBS course (clinical medicine group))	
胰臟癌研究專題討論(一)(Special topics on pancreatic cancer research (I))/M9M000076	選(E)	1.0	1.0						所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	
動物實驗與實驗技術(Animal experiment & experimental technique)/M9M000083	選(E)	2.0	2.0						所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	
基因編輯之原理與應用(The principle & applications of genome editing)/M9M000143	選(E)	2.0	2.0						所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	全英文授課(Full English Course)
蛋白質修飾與基因調控特論(Special topics on protein modification & gene regulation)/M9M000032	選(E)	2.0	2.0						所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	
發育神經科學專題討論(一)(Seminar in developmental neuroscience(I))/M9M000033	選(E)	1.0	1.0						所定選修(神經科學組)(GIBS courses(neuroscience group))	全英文授課(Full English Course)
幹細胞技術研究法(Stem cells research technique)/M9M000037	選(E)	2.0	2.0						所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	暑假授課
幹細胞技術專題討論(一)(Seminar in stem cell technology (I))/M9M000038	選(E)	2.0	2.0						所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	
微免新知與探索(Exploring new concepts in microbiology & immunology)/M9M000097	選(E)	1.0	1.0						所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	
腫瘤標靶治療與抗藥性(一)(Tumor targeted therapy & drug resistance (I))/M9M000041	選(E)	2.0	2.0						所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
實驗動物學(Laboratory animals)/M9M000131	選(E)	2.0	2.0						所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	
認知神經科學(Cognitive neuroscience)/M9M000103	選(E)	3.0	3.0						所定選修(神經科學組)(GIBS courses(neuroscience group))	
線蟲模式生物及其應用(Caenorhabditis elegans in biomedical research)/M9M000047	選(E)	2.0	2.0						所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	
興奮性神經傳導與神經毒性(Excitatory neurotransmission & neurotoxicity)/M9M000140	選(E)	2.0	2.0						所定選修(神經科學組)(GIBS courses(neuroscience group))	全英文授課(Full English Course)

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癌症內分泌特論(一)(Special topics on oncoendocrinology (I))/M9M000048	選(E)	1.0	1.0						所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
癌症分子影像(一)(Cancer molecular imaging (I))/M9M000052	選(E)	2.0	2.0						所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	
癌症生物技術(Biotechnology for cancer research)/M9M000054	選(E)	1.0	1.0						所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	暑期授課
癌症免疫治療特論(一)(Special topics on immuno-oncology therapy (I))/M9M000121	選(E)	1.0	1.0						所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
癌症免疫學(Cancer immunology)/M9M000071	選(E)	2.0	2.0						所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	
癌症表遺傳體學(一)(Cancer epigenomics(I))/M9M000151	選(E)	1.0	1.0						所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
癌症病毒學特論(Special topics on cancer virology)/M9M000091	選(E)	2.0	2.0						所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	
癌症能量代謝特論(一)(Special topics on cancer metabolism (I))/M9M000137	選(E)	2.0	2.0						所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
癌症微生物特論(一)(Special topics on cancer microbiology(I))/M9M000168	選(E)	1.0	1.0						所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	
癌症與發炎特論(一)(Special topics on cancer & inflammation (I))/M9M000059	選(E)	1.0	1.0						所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	
癌症轉移與幹細胞特論(一)(Special topics on cancer metastasis & stem cells (I))/M9M000127	選(E)	1.0	1.0						所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
臨床認知與神經科學特論(Special topic on clinical cognitive & neural sciences)/M9M000088	選(E)	2.0	2.0						所定選修(神經科學組)(GIBS courses(neuroscience group))	
轉譯精神醫學專題討論(一)(Seminar in translational psychiatry (I))/M9M000163	選(E)	1.0	1.0						所定選修(神經科學組)(GIBS courses(neuroscience group))	全英文授課(Full English Course)
轉譯醫學之理論與實務(一)(Theory & practice of translation medicine (I))/M9M000110	選(E)	1.0	1.0						所定選修(臨床醫學組)(GIBS course (clinical medicine group))	全英文授課(Full English Course)
轉譯醫學實驗方法之理論與實作入門(一)(Concepts & practice in translational experimental methodology (I))/M9M000145	選(E)	2.0	2.0						所定選修(臨床醫學組)(GIBS course (clinical medicine group))	
醫療3D列印原理(3D printing in medical application introduction)/M9M000100	選(E)	2.0	2.0						所定選修(臨床醫學組)(GIBS course (clinical medicine group))	
藥物遺傳學(Pharmacogenetics)/M9M000095	選(E)	2.0	2.0						所定選修(臨床醫學組)(GIBS course (clinical medicine group))	
RNA生物學特論(Special topics on RNA biology)/M9M000001	選(E)	2.0		2.0					所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	
RNA修飾特論(二)(Special topics on RNA modifications (II))/M9M000160	選(E)	1.0		1.0					所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
人類注意力(Human attention)/M9M000002	選(E)	2.0		2.0					所定選修(神經科學組)(GIBS courses(neuroscience group))	

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			1	2	1	2				
人類腸道微生物於疾病之相關研究(Research about human microbiota & disease)/M9M000139	選(E)	2.0		2.0					所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	
分子藥理學特論(二)(Special topics on molecular pharmacology (II))/M9M000134	選(E)	1.0		1.0					所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	全英文授課(Full English Course)
生技醫藥產業特論(Special topics on biotech & pharmaceutical industry)/M9M000126	選(E)	2.0		2.0					所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	
生物訊息傳遞特論(Special topics on signal transduction)/M9M000009	選(E)	2.0		2.0					所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	
生物資訊與數據分析(Bioinformatics & data analysis)/M9M000149	選(E)	2.0		2.0					所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	
自體免疫疾病研究特論(二)(Special topics on autoimmune diseases (II))/M9M000113	選(E)	1.0		1.0					所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	全英文授課(Full English Course)
免疫代謝(Immune metabolism)/M9M000167	選(E)	2.0		2.0					所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	
免疫學生物技術特論(Special topics on biotechnology in immunology)/M9M000013	選(E)	2.0		2.0					所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	
免疫學特論(二)(Special topics on immunology (II))/M9M000015	選(E)	2.0		2.0					所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	
肝癌研究專題討論(二)(Seminars in liver cancer research (II))/M9M000109	選(E)	2.0		2.0					所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	
乳腺癌生物學和治療(二)(Breast cancer biology and therapy (II))/M9M000156	選(E)	1.0		1.0					所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
呼吸道免疫學專題討論(二)(Seminar in respiratory immunology (II))/M9M000017	選(E)	1.0		1.0					所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	
奈米生醫材料及轉譯科學(Translational biomaterials & nanomedicines)/M9M000171	選(E)	2.0		2.0					所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	
知覺發展特論(Special topics on perceptual development)/M9M000107	選(E)	2.0		2.0					所定選修(神經科學組)(GIBS courses(neuroscience group))	
肥胖及糖尿病特論(Special topics on obesity & diabetes)/M9M000142	選(E)	2.0		2.0					所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	全英文授課(Full English Course)
科學性文章賞析與撰寫(二)(Scientific paper writing (II))/M9M000065	選(E)	1.0		1.0					所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	
致癌基因與標靶治療特論(二)(Special topics on oncogene & cancer target therapy (II))/M9M000118	選(E)	1.0		1.0					所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
神經退化疾病與神經保護特論(Special topics on Neurodegenerative Disease and Neuroprotection)/M9M000153	選(E)	1.0		1.0					所定選修(神經科學組)(GIBS courses(neuroscience group))	
神經遺傳疾病與訊息路徑(Neurogenetic diseases & signal transduction)/M9M000170	選(E)	2.0		2.0					所定選修(神經科學組)(GIBS courses(neuroscience group))	全英文授課，與老化博合班(Full English Course)

中國醫藥大學 醫學院生物醫學研究所碩士班 選修畢業學分認定表 111 學年度入學適用

China Medical University Master Program in Graduate Institute of Biomedical Sciences Elective for Master Program (Applicable for 2022-2023 Enrollees)

科目名稱/課號 Course Title/Course ID	修別 Type	學分 Credits	一年級 Freshman		二年級 Sophomore		可供博士班下修 (請打勾) Available for Ph.D. Program (check)	可供學士班上修 (請打勾) Available for Undergraduate (check)	課程分類 Category	備註 Remarks
			上	下	上	下				
			1	2	1	2				
胰臟癌研究專題討論(二)(Special topics on pancreatic cancer research (II))/M9M000077	選(E)	1.0		1.0					所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	
記憶的生化機制(Biochemistry of memory)/M9M000172	選(E)	2.0		2.0					所定選修(神經科學組)(GIBS courses(neuroscience group))	
偽慢病毒應用與實作(Application & practice of pseudotyped lentivirus)/M9M000068	選(E)	2.0		2.0					所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	全英文授課(Full English Course)
基因工程與生物技術特論(Special topics on gene engineering & biotechnology)/M9M000093	選(E)	2.0		2.0					所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	
基因損傷調控(Regulation of DNA damage response)/M9M000026	選(E)	2.0		2.0					所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
細胞生物學中的生物物理方法(Biophysical Methods in Cell Biology)/M9M000150	選(E)	2.0		2.0					所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	
組織工程與生物醫學特論(Special topics on tissue engineering & biomedicine)/M9M000031	選(E)	2.0		2.0					所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	
發育神經科學專題討論(二)(Seminar in developmental neuroscience(II))/M9M000034	選(E)	1.0		1.0					所定選修(神經科學組)(GIBS courses(neuroscience group))	全英文授課(Full English Course)
結構生物資訊與機器學習(Structural bioinformatics & machine learning)/M9M000102	選(E)	2.0		2.0					所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	
幹細胞技術專題討論(二)(Seminar in stem cell technology (II))/M9M000039	選(E)	2.0		2.0					所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	
腫瘤標靶治療與抗藥性(二)(Tumor targeted therapy & drug resistance (II))/M9M000042	選(E)	2.0		2.0					所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
實驗動物醫學(Laboratory animal medicine)/M9M000105	選(E)	2.0		2.0					所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	
認知科學論文寫作(Scientific writing in cognitive sciences)/M9M000116	選(E)	2.0		2.0					所定選修(神經科學組)(GIBS courses(neuroscience group))	全英文授課(Full English Course)
興奮性毒性期刊討論(Excitotoxicity journal club)/M9M000141	選(E)	1.0		1.0					所定選修(神經科學組)(GIBS courses(neuroscience group))	全英文授課(Full English Course)
遺傳流行病學(Genetic epidemiology)/M9M000096	選(E)	2.0		2.0					所定選修(臨床醫學組)(GIBS course (clinical medicine group))	
癌症內分泌特論(二)(Special topics on oncoendocrinology (II))/M9M000049	選(E)	1.0		1.0					所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
癌症分子影像(二)(Cancer molecular imaging (II))/M9M000053	選(E)	2.0		2.0					所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	
癌症生物標記特論(Special topics on cancer biomarker)/M9M000098	選(E)	2.0		2.0					所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	
癌症生物學(Cancer biology)/M9M000055	選(E)	2.0		2.0					所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)

中國醫藥大學 醫學院生物醫學研究所碩士班 選修畢業學分認定表 111 學年度入學適用

China Medical University Master Program in Graduate Institute of Biomedical Sciences Elective for Master Program (Applicable for 2022-2023 Enrollees)

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列印日期(Date)：114年4月15日

科目名稱/課號 Course Title/Course ID	修別 Type	學分 Credits	一年級 Freshman		二年級 Sophomore		可供博士班下修 (請打勾) Available for Ph.D. Program (check)	可供學士班上修 (請打勾) Available for Undergraduate (check)	課程分類 Category	備註 Remarks
			上	下	上	下				
			1	2	1	2				
癌症免疫治療特論(二)(Special topics on immuno-oncology therapy (II))/M9M000122	選(E)	1.0		1.0					所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
癌症表遺傳體學(二)(Cancer epigenomics(II))/M9M000152	選(E)	1.0		1.0					所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
癌症能量代謝特論(二)(Special topics on cancer metabolism (II))/M9M000138	選(E)	2.0		2.0					所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
癌症微生物特論(二)(Special topics on cancer microbiology(II))/M9M000169	選(E)	1.0		1.0					所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	
癌症與發炎特論(二)(Special topics on cancer & inflammation (II))/M9M000060	選(E)	1.0		1.0					所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	
癌症轉移與幹細胞特論(二)(Special topics on cancer metastasis & stem cells (II))/M9M000128	選(E)	1.0		1.0					所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
轉譯基因體醫學特論(Translational genomic)/M9M000061	選(E)	2.0		2.0					所定選修(臨床醫學組)(GIBS course (clinical medicine group))	
轉譯精神醫學專題討論(二)(Seminar in translational psychiatry (II))/M9M000164	選(E)	1.0		1.0					所定選修(神經科學組)(GIBS courses(neuroscience group))	全英文授課(Full English Course)
轉譯醫學之理論與實務(二)(Theory & practice of translation medicine (II))/M9M000111	選(E)	1.0		1.0					所定選修(臨床醫學組)(GIBS course (clinical medicine group))	全英文授課(Full English Course)
轉譯醫學實驗方法之理論與實作入門(二)(Concepts & practice in translational experimental methodology (II))/M9M000146	選(E)	2.0		2.0					所定選修(臨床醫學組)(GIBS course (clinical medicine group))	
醫學遺傳學(Medical genetics)/M9M000148	選(E)	2.0		2.0					所定選修(臨床醫學組)(GIBS course (clinical medicine group))	
醫療3D列印(3D printing in medical application)/M9M000101	選(E)	2.0		2.0					所定選修(臨床醫學組)(GIBS course (clinical medicine group))	
RNA修飾特論(三)(Special topics on RNA modifications (III))/M9M000161	選(E)	1.0			1.0				所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
分子藥理學特論(三)(Special topics on molecular pharmacology (III))/M9M000135	選(E)	1.0			1.0				所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	全英文授課(Full English Course)
自體免疫疾病研究特論(三)(Special topics on autoimmune diseases (III))/M9M000114	選(E)	1.0			1.0				所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	全英文授課(Full English Course)
乳腺癌生物學和治療(三)(Breast cancer biology and therapy (III))/M9M000157	選(E)	1.0			1.0				所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
呼吸道免疫學專題討論(三)(Seminar in respiratory immunology (III))/M9M000018	選(E)	1.0			1.0				所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	
致癌基因與標靶治療特論(三)(Special topics on oncogene & cancer target therapy (III))/M9M000119	選(E)	1.0			1.0				所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
胰臟癌研究專題討論(三)(Special topics on pancreatic cancer research (III))/M9M000078	選(E)	1.0			1.0				所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	
專題討論(三)(Seminar (III))/M9M000029	選(E)	1.0			1.0				所定選修(不分組)(Department course)	全英文授課, 碩二尚未畢業學生須選修(Full English Course)

中國醫藥大學 醫學院生物醫學研究所碩士班 選修畢業學分認定表 111 學年度入學適用

China Medical University Master Program in Graduate Institute of Biomedical Sciences Elective for Master Program (Applicable for 2022-2023 Enrollees)

第 7 頁 / 共 8 頁

列印日期(Date)：114年4月15日

科目名稱/課號 Course Title/Course ID	修別 Type	學分 Credits	一年級 Freshman		二年級 Sophomore		可供博士班下修 (請打勾) Available for Ph.D. Program (check)	可供學士班上修 (請打勾) Available for Undergraduate (check)	課程分類 Category	備註 Remarks
			上	下	上	下				
			1	2	1	2				
認知神經科學病例研究(Patient-based approaches to cognitive neuroscience)/M9M000046	選(E)	2.0			2.0				所定選修(神經科學組)(GIBS courses(neuroscience group))	
癌症內分泌特論(三)(Special topics on oncoendocrinology (III))/M9M000050	選(E)	1.0			1.0				所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
癌症免疫治療特論(三)(Special topics on immuno-oncology therapy (III))/M9M000123	選(E)	1.0			1.0				所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
癌症轉移與幹細胞特論(三)(Special topics on cancer metastasis & stem cells (III))/M9M000129	選(E)	1.0			1.0				所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
轉譯精神醫學專題討論(三)(Seminar in translational psychiatry (III))/M9M000165	選(E)	1.0			1.0				所定選修(神經科學組)(GIBS courses(neuroscience group))	全英文授課(Full English Course)
RNA修飾特論(四)(Special topics on RNA modifications (IV))/M9M000162	選(E)	1.0			1.0				所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
分子藥理學特論(四)(Special topics on molecular pharmacology (IV))/M9M000136	選(E)	1.0			1.0				所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	全英文授課(Full English Course)
自體免疫疾病研究特論(四)(Special topics on autoimmune diseases (IV))/M9M000115	選(E)	1.0			1.0				所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	全英文授課(Full English Course)
乳腺癌生物學和治療(四)(Breast cancer biology and therapy (IV))/M9M000158	選(E)	1.0			1.0				所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
呼吸道免疫學專題討論(四)(Seminar in respiratory immunology (IV))/M9M000019	選(E)	1.0			1.0				所定選修(微生物暨免疫學組)(GIBS course (microbiology and immunology group))	
致癌基因與標靶治療特論(四)(Special topics on oncogene & cancer target therapy (IV))/M9M000120	選(E)	1.0			1.0				所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
脂質暨代謝體之於精準醫學(Lipidomics & metabolomics in precision medicine)/M9M000147	選(E)	2.0			2.0				所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	
胰臟癌研究專題討論(四)(Special topics on pancreatic cancer research (IV))/M9M000079	選(E)	1.0			1.0				所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	
動物行為實驗設計(Design for animal behavior experiment)/M9M000084	選(E)	2.0			2.0				所定選修(分子化學暨細胞生物學組)(GIBS courses (Molecular and cellular biology group))	
專題討論(四)(Seminar (IV))/M9M000030	選(E)	1.0			1.0				所定選修(不分組)(Department course)	全英文授課, 碩二尚未畢業學生須選修(Full English Course)
癌症內分泌特論(四)(Special topics on oncoendocrinology (IV))/M9M000051	選(E)	1.0			1.0				所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
癌症免疫治療特論(四)(Special topics on immuno-oncology therapy (IV))/M9M000124	選(E)	1.0			1.0				所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
癌症轉移與幹細胞特論(四)(Special topics on cancer metastasis & stem cells (IV))/M9M000130	選(E)	1.0			1.0				所定選修(腫瘤醫學組)(GIBS courses(tumor medicine group))	全英文授課(Full English Course)
轉譯精神醫學專題討論(四)(Seminar in translational psychiatry (IV))/M9M000166	選(E)	1.0			1.0				所定選修(神經科學組)(GIBS courses(neuroscience group))	全英文授課(Full English Course)
合計 選修總學分 (Elective subtotal)		209.0	92.0	87.0	14.0	16.0				

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學分及「研究倫理」0學分課程。

(二)須通過校定碩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：碩士生須完成至少1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。

University requirement for graduation

(1)Students must take and pass the courses Research ethics and Laboratory safety. (0 credit courses)

(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 Master students must complete at least one semester of teaching assistant training.

(Foreign students excluded)

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

生物醫學研究所碩士班注意事項

注意事項：

1、教育目標：(1)強化學生生物醫學與生物資訊專業知識。(2)培養學生獨立思考、具有發覺及解決問題能力。(3)培育具有國際觀之人才。

2、111學年度入學新生實施，本所修業1年至4年。

3、本所學位規定應修學分，至少應修30學分(含碩士論文6學分)始得畢業。必修6學分{含院級必修4學分}、論文6學分、選修18學分{需有9學分為本所開設之學分(含各組選修課程)}

4、新生須於一年級第二學期開學前繳交選定教學分組申請書，並經指導教授與所長同意始確立組別。於期限內繳交者得於碩士學位考前申請換組乙次；逾期繳交者不得申請換組。

5、各組修課規定：除應修習必修學分外，各組學生需從該組選修課程中，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)，加上其他選修課程後，始可畢業。

6、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)「分子醫學」-碩博士班院級必修4學分

7、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。(外籍生免修)

Note of Master Program in Graduate Institute of Biomedical Sciences

1.Educational goals: (1) To strengthen students' professional knowledge of biomedicine and bioinformatics. (2) Cultivate students' ability to think independently, discover and solve problems. (3) Cultivate talents with global perspective.

2.For students enrolled in 2022: The Master's program is a one-to-four-year course.

3.Minimum credits required for graduation is 30 credits, including 6 credits from required courses (must include 4 credits from College required courses), 18 credits from elective courses (must include 9 credits of GIBS courses) and 6 credits of Master's thesis research.

4.Students need to submit Curriculum Group application before the start of 2nd semester of the 1st academic year. Students submit on time are allowed to apply for Curriculum Group change once before applying for thesis defense for M.S. degree. Those fail to submit application on time are not allowed to change Curriculum Group. If a student applies for change of Curriculum Group, he/she needs to get the consent signature of the adviser and the head of the department/institute.

5.Student should pass at least 1 elective course of the selected Curriculum Group. If the course has more than one lectures offered in different semester, students should pass all the lectures.

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

7.Students must pass the English Proficiency Standard before graduation, according to the regulation of CMU Students' English Proficiency Assessment.(Foreign students excluded)

單位主管簽章：