111 Master program for the Faculty of Medicinal and Applied Chemistry

Type of Course	Code	Courses	Credits	1st Year 1st Semester	1st Year 2nd Semester	2nd Year 1st Semester	2nd Year 2nd Semester	Faculty	note
Require courses		Behavior							
		專題討論（Division of Medicinal Chemistry） Seminar	4	1	1	1	1	**Chai-Lin Kao**	English
		專題討論（Division of Medicinal Chemistry） Seminar	4	1	1	1	1	**Po-Yu Chen**	English
		專題討論(Division of Applied Chemistry) Seminar	4	1	1	1	1	**Chih-Kuang Wang**	English
		生命科學核心技術與學術倫理 The Principle of Core Techniques and Ethics in Life Sciences	2	2				**Bao-Sen Shieh**	
		特別演講 Special Lecture	0	0	0	0	0	**Genin Gary Huang**	
		教學實習 Professional Practice in Chemistry	0	0	0	0	0	**1. Chien-Hung Li** **2. Chia-Hsiang Chen**	English
		碩士論文 Thesis	6						
Elective courses	*	有機化學特論（一） Special Topics in Organic Chemistry（I）	2	2				**Jeh-Jeng Wang**	English
	*	有機化學特論（二） Special Topics in Organic Chemistry（II）	2		2			**Jeh-Jeng Wang**	English
	*	無機化學特論（一） Special Topics in Inorganic Chemistry（I）	2	2				**Sodio C.N. Hsu**	English
	*	無機化學特論（二） Special Topics in Inorganic Chemistry（II）	2		2			**Sodio C.N. Hsu**	English
	*	物理化學特論（一） Special Topics in Physical Chemistry（I）	2	2				**Li-Fang Wang**	English
	*	物理化學特論（二） Special Topics in Physical Chemistry（II）	2		2			**Li-Fang Wang**	English
	*	儀器分析特論（一） Special Topics in Instrumental Analysis（I）	2	2				**Tsai-Hui Duh**	English
	*	儀器分析特論（二） Special Topics in Instrumental Analysis（II）	2		2			**Po-Yu Chen**	English
		材料化學特論（一） Special topics in materials in chemistry（I）	2	2				**Chih-Kuang Wang**	
		材料化學特論（二） Special topics in materials in chemistry（II）	2		2			**Chih-Kuang Wang**	
		藥物化學特論 Special Topics in Medicinal Chemistry	2	2				**Chai-Lin Kao**	English
		生物化學特論（一） Special Topics in Biochemisty（I）	2	2				**Tzu-Pin Wang**	
		生物化學特論（二） Special Topics in Biochemisty（II）	2		2			**Tzu-Pin Wang**	
		生醫材料特論 Special Topics in Biomaterials	2		2			**Li-Fang Wang**	
		有機光譜特論 Special Topics in Spectroscopy	2	2				**Yeh-Long Chen**	
		雜環化學特論（一）	2	2				**Chai-Lin Kao**	English

		Special Topics in Heterocyclochemistry（I）							
		雜環化學特論（二） Special Topics in Heterocyclochemistry（II）	2		2			**Chai-Lin Kao**	English
		生物有機化學特論（一） Special Topics in Bioorganic Chemistry（I）	2	2				**Jeh-Jeng Wang**	
		生物有機化學特論（二） Special Topics in Bioorganic Chemistry（II）	2		2			**Jeh-Jeng Wang**	
		醫藥品合成化學特論 Special Topics in Drug Synthesis (I)	2		2			**Yeh-Long Chen**	
		有機金屬化學特論 Special Topics in Organometallic Chemistry	2	2				**Hsuan-Ying Chen**	
		超分子化學特論 Special Topic in Supramolecular Chemistry	2		2			**Sodio C.N. Hsu**	
		生物無機化學特論 Special Topics in Bioinorganic Chemistry	2	2				**Sodio C.N. Hsu**	English
		電化學特論 Special Topics in Electrochemistry	2	2				**Po-Yu Chen**	
		質譜學特論 Special Topics in Mass Spectrometry	2		2			**Po-Jui Huang**	
		生物觸媒化學特論(一) Special Topics in Biocatalytical Chemistry(I)	2	2				**Tzu-Pin Wang**	
		生物觸媒化學特論(二) Special Topics in Biocatalytical Chemistry(II)	2		2			**Tzu-Pin Wang**	
		藥物分析特論 Special Topics in Pharmaceutical Analysis	2		2			**Tsai-Hui Duh**	
		有機金屬催化劑特論 Special Topics in Organometallic Catalysts	2		2			**Hsuan-Ying Chen**	
		計算化學概論 Introduction to Computational Chemistry	2	2				**Hsing-Yin Chen**	
Elective courses offered by Academia Sinica		永續化學導論(上) Introduction to SCST I	3	3				**Sodio C.N. Hsu** **Ito Chao**	
		永續化學導論(下) Introduction to SCST II	3		3			**Tzu-Pin Wang** **Ito Chao**	
		高等有機化學 Advanced Organic Chemistry	3		3			**Hui-Fen Chen** **Wen-Shan Li** **Sheng-Fa Yu**	
		高等材料化學 Advanced Chemistry of Materials	3		3			**Hui-Fen Chen** **Chin-Ti Chen**	
		現代實驗技術-化學 Modern Experimental Techniques-Chemistry	2	2				**Genin Gary Huang** **Chen-Hsiung Hung**	
		冷凍電子顯微術：理論與實作(一) Cryo-Electron Microscopy: theory and practice (I)	2	2				**Genin Gary Huang** **Wei-Hau Chang**	
		冷凍電子顯微術：理論與實作(二) Cryo-Electron Microscopy: theory and practice (II)	2			2		**Genin Gary Huang** **Wei-Hau Chang**	

【Note】

1. A total of 30 credits is required for graduation, including 12 required credits (6 credits are for the Master's thesis) and 18 elective credits.
   (Among the elective courses marked with " * "students must select and complete at least three out of eight.)

(Applicable to students admitted from the 2019 academic year onward.)

2. Each elective course requires a minimum enrollment of 3 students to be offered.
3. Students admitted in the 2009 academic year and thereafter must pass an English proficiency test equivalent to the GEPT Intermediate Level (first stage) before graduation. Those who fail to meet this requirement must take additional English credit courses.
4. Credits from partner institutions may be accepted with advisor and department chair approval.
5. Students may take biostatistics-related courses from other departments with prior approval.
6. Graduate students may take up to 15 credits per semester.
7. Master's students may take Ph.D.-level courses in the department; credits count toward electives.
8. From 2017, students must complete the **Academic Ethics course** online in their first semester and pass the test before applying for degree defense.
9. Students in the Advanced Chemistry Division may take existing courses offered by Academia Sinica, and the credits may be included in the curriculum list (as newly added courses) without additional external review.
10. From the 2017 academic year onward, graduate students must complete self-study and pass the final test on the Taiwan Academic Ethics Education Resource Center website during their first semester in order to be eligible to apply for the degree examination
11. For graduate students taking undergraduate-level courses, a minimum score of 60 is required to pass. Failed courses cannot be retaken through make-up exam, failed courses cannot be retaken and are not counted toward GPA or credit totals.