

Required Courses for Undergraduates in the Department of Chemistry, Autumn 2023 – Spring 2024

For detailed information and syllabuses please refer to <https://nol.ntu.edu.tw/nol/guest/index.php>

		1 st Semester		2 nd Semester	
		Courses (credits) Schedule	Instructor	Courses (credits) Schedule	Instructor
Required Courses	Freshman	General Chemistry I (3) 203 10110 W F 34 Lectured in English	Chan, Chun-Chung	General Chemistry II (3) 203 10120 W F 34 Lectured in English	Cheng, Yuan-Chung
		Chemistry Lab. I (1) 203 11510 Tu 678	Teachers in charge of General Chemistry labs	Chemistry Lab. (II) 203 11520 Tu 678	Teachers in charge of General Chemistry labs
		Student Service Education (a) 203 001A0 Student Service Education (b) 203 001B0		Student Service Education (a) 203 001A0 Student Service Education (b) 203 001B0	
	Sophomore	Organic Chemistry (I) 203 22210 Tu 34Th 34	Yang, Jye-Shane	Organic Chemistry (II) 203 22220 Tu 2 Th 34	Yang, Jye-Shane
		Analytical Chemistry (I) 203 21210 M 34 Th 2	Liao, Wei-Ssu	Analytical Chemistry (II) 203 21220 M 34 Th 2 Lectured in English	Cheng, Hsiu-Wei
		Chemistry Lab. (III) 203 22510 M 6-10 / Tu 6-10	Wang, Tsung-Shing Cheng, Hsiu-Wei	Chemistry Lab. (IV) 203 22520 M 6-10 / Tu 6-10	Wang, Tsung-Shing Cheng, Hsiu-Wei
				Physical Chemistry (II)-Quantum Chemistry 203 33170 Tu 34 F 2	Jiang, Chang-Ming
		Student Service Education (a) 203 001A0 Student Service Education (b) 203 001B0		Student Service Education (a) 203 001A0 Student Service Education (b) 203 001B0	
	Junior	Physical Chemistry (I)-Thermodynamics 203 33160 W 2 F 34	Lu, Chun-Yi		
		Inorganic Chemistry (I) 203 34210 M 2 W 34	Peng, Chi-How	Inorganic Chemistry (II) 203 34220 M 2 W 34	Chiu, Ching-Wen
		Chemistry Lab. (V) 203 33510 M 6-10	Lu, Chun-Yi	Chemistry Lab. (V) 203 33510 M 6-10	Lu, Chun-Yi
		Student Service Education (a) 203 001A0 Student Service Education (b) 203 001B0		Student Service Education (a) 203 001A0 Student Service Education (b) 203 001B0	
	Senior	Seminar(B.S.) 203 40330 M 89 / Tu 89		Seminar(B.S.) 203 40330 M 89 / Tu 89	

Elective Courses for Graduate students and Undergraduates, Autumn 2023 – Spring 2024

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Elective Courses		1 st Semester		2 nd Semester	
		Courses Schedule	Instructor	Courses Schedule	Instructor
(Undergraduates only)	Freshman and above			Professions in Chemistry 203 10110 W 7	Peng, Chi-How
	Sophomore	Mathematics for Chemists 203 20110 W 789	Cheng, Yuan-Chung		
	Junior	Research Training for Junior (I) 203 39230	Department Chair	Research Training for Junior (II) 203 39240	Department Chair
		Seminar for Junior (I) 203 39130	See detailed schedule	Seminar for Junior (II) 203 39140	See detailed schedule
		Mathematics for Chemists 203 20110 W 789	Cheng, Yuan-Chung	Physical Chemistry (III)-Kinetics and Dynamics 203 33180 W89F7	Lin, Jim Jr-Min
	Senior and above	Research Training for Senior (I) 203 49230	Teachers in charge of the courses	Research Training for Senior (II) 203 49240	Teachers in charge of the courses
		Seminar for Special Topics (I) 203 49130	Teachers in charge of the courses	Seminar for Special Topics (II) 203 49140	Teachers in charge of the courses
				Thesis (B.S.) 203 40000	Department Chair
		Mathematics for Chemists 203 20110 W 789	Cheng, Yuan-Chung	Physical Chemistry (III)-Kinetics and Dynamics 203 33180 W89F7	Lin, Jim Jr-Min

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Elective Courses	1 st Semester		2 nd Semester		
	Courses Schedule	Instructor	Courses Schedule	Instructor	
For Junior/ Senior And Graduates	Organic Chemistry	Synthesis and Chemical Behavior of Polymers 223 U0930 Th 8910	Chan, Yi-Tsu		
		Bio-Organic Chemistry 223 U1460 Tu 34	Cheng, Richard P.		
	Inorganic Chemistry	Materials Chemistry 223 U0910 Tu 34 Th6	Chen, Hao-Ming	Introduction to Synchrotron Radiation Related Research 223 U0770 W 67	Chuang, Yu-Chun
		Special Topics in Inorganic Chemistry 223 U3200 Th 5 Master students only	Chan, Chun-Chung	Catalyst Chemistry 223 U0530 Tu 67 W 2	Cheng, Soofin
				Organometallic Chemistry 223 U0950 W8910	Kong, Kien-Voon Ong, Tiow-Gan
	Physical Chemistry	Protein Structure and Dynamics 223 U1170 W789 Lectured in English	Manuel Maestre-Reyna	Solid-Sate Material Design and Electronics for Chemists 223 U1180 W8910	Hsu, Liang-Yan
				Special Topic: Molecular Spectroscopy and Dynamics in Condensed Phase 223 U1190 W67G6	Chou, Pi-Tai
				Polymer Crystallography and Self-Assembly 223 U1470 Tu234	Wang, Chien-Lung
	Analytical Chemistry	Electrochemistry 223 U0130 Tu2 Th34	Chen, Chun-hsien	Special Topics in Analytical Chemistry 223 U3300 Th 5 Master students only	Chan, Chun-Chung
	Chemical Biology	Drug Design and Development 223 U2650 W67	Lin, Chun-Hung	Natural Product Chemistry 223 U2780 Tu34	Chu, Chung-Han

Required Courses for Graduate Students in the Department of Chemistry, Autumn 2023 – Spring 2024

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		1 st Semester		2 nd Semester	
		Courses Schedule	Instructor	Courses Schedule	Instructor
Required Courses	See noted below	(Discussion in)Advanced Organic Chemistry (II) 223 M1240/223 D1240 M F 34	Chiu, Sheng-Hsien	(Discussion in)Advanced Organic Chemistry (II) 223 M1230/223 D1230 M F 34 Lectured in English	Jeffrey M. Farrell
		(Discussion in)Advanced Inorganic Chemistry (I) 223 M1410/223 D1410 Lectured in English	Ong, Tiow-Gan	(Discussion in)Advanced Inorganic Chemistry (II) 223 M1420/223 D1420 Tu 6 Th 34	Chen, Hao-Ming
		(Discussion in)Advanced Analytical Chemistry (II) 223 M1140/223 D1140 Lectured in English	Cheng, Hsiu-Wei	(Discussion in)Advanced Analytical Chemistry (I) 223 M1130/223 D1130 Tu 34 F 2	Liao, Wei-Ssu
		(Discussion in)Advanced Physical Chemistry (I) 223 M1310/223 D1310 Lectured in English	Hsu, Liang-Yan	(Discussion in)Advanced Physical Chemistry (II) 223 M1320/223 D1320 M 2 W 34 Lectured in English	Organized by TIGP
		(Discussion in)Advanced Chemical Biology(I) 223 M1660/223 D1660 Lectured in English	Chu, Chung-Han	(Discussion in)Advanced Chemical Biology(II) 223 M1620/223 D1620 F 234 Lectured in English	Lin, Chun-Hung
		The Future of Professions in Chemistry 223 M1720 Compulsory course for master students	Peng, Chi-How	Advanced Technical Writing for Chemical Sciences 223 M1710 Master students only	Cheng, Yuan-Chung
				Experimental Molecular Biophysics B46 D0220 (Lectured in English)	Organized by Institute of Biochemical Science & Technology

Notes: Students must take at least two courses, with additional requirements from each individual sub-discipline:

Organic: Advanced Organic Chemistry (I) or (II) **(must take at least one of the two courses)**

Inorganic: Advanced Inorganic Chemistry (I) or (II) **(must take at least one of the two courses)**

Analytical Chemistry: Advanced Analytical Chemistry (I) or (II) **(must take at least one of the two courses)**

Physical Chemistry: Advanced Physical Chemistry (I) or (II) or (III) **(must take at least one of the three courses)**

Chemical Biology: Advanced Chemical Biology (I) **is required**

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		Courses Schedule	Instructor	Courses Schedule	Instructor
Master students	First year	Teaching Practice in Chemistry I (MS) 223 M0230	Prof. of each group	Teaching Practice in Chemistry II (MS) 223 M0330	Prof. of each group
	All MSc students	Research Training 223 M0020	Each prof.	Research Training 223 M0020	Each prof.
	1 st and 2 nd years	Literature on Chemistry (M.S.) (Organic) 223 M0090 Th 89 / F 89	Org. prof.	Literature on Chemistry (M.S.) (Organic) 223 M0090 Th 89 / F 89	Org. prof.
		Literature on Chemistry (M.S.) (Inorganic) 223 M0090 Th 89 / F 89	Inorg. prof.	Literature on Chemistry (M.S.) (Inorganic) 223 M0090 Th 89 / F 89	Inorg. prof.
		Literature on Chemistry (M.S.) (Analytical) 223 M0090 Th 89 / F 89	Anal. prof.	Literature on Chemistry (M.S.) (Analytical) 223 M0090 Th 89 / F 89	Anal. prof.
		Literature on Chemistry (M.S.) (Physical) 223 M0090 Th 89 / F 89	Phys. prof.	Literature on Chemistry (M.S.) (Physical) 223 M0090 Th 89 / F 89	Phys. prof.
		Literature on Chemistry (M.S.) (Chemical Biology) 223 M0090 Th 89 / F 89	Biol. prof.	Literature on Chemistry (M.S.) (Chemical Biology) 223 M0090 Th 89 / F 89	Biol. prof.
	the semester of graduation	Thesis (M.S.) 223 M0010	Each advisor	Thesis (M.S.) 223 M0010	Each advisor
	<i>12 lecture reports required per semester</i>				
Ph.D. students	Second year	Teaching Practice in Chemistry I (PH.D) 223 D0230	Each prof.	Teaching Practice in Chemistry II (PH.D) 223 D0330	Each prof.
	All PhD students	Research Training 223 D0020	Each prof.	Research Training 223 D0020	Each prof.
	1 st and 2 nd years	Literature on Chemistry (PH.D) (Organic) 223 D0090 Th 89 / F 89	Org. prof.	Literature on Chemistry (PH.D) (Organic) 223 D0090 Th 89 / F 89	Org. prof.
		Literature on Chemistry (PH.D) (Inorganic) 223 D0090 Th 89 / F 89	Inorg.prof.	Literature on Chemistry (PH.D) (Inorganic) 223 D0090 Th 89 / F 89	Inorg.prof.
		Literature on Chemistry (PH.D) (Analytical) 223 D0090 Th 89 / F 89	Anal. prof.	Literature on Chemistry (PH.D) (Analytical) 223 D0090 Th 89 / F 89	Anal. prof.
		Literature on Chemistry (PH.D) (Physical) 223 D0090 Th 89 / F 89	Phys. prof.	Literature on Chemistry (PH.D) (Physical) 223 D0090 Th 89 / F 89	Phys. prof.
		Literature on Chemistry (PH.D) (Chemical Biology) 223 D0090 Th 89 / F 89	Biol. prof.	Literature on Chemistry (PH.D) (Chemical Biology) 223 D0090 Th 89 / F 89	Biol. prof.
	the semester of graduation	Dissertation (PH.D) 223 D0010	Each advisor	Dissertation (PH.D.) 223 D0010	Each advisor
	<i>15 lecture reports required per semester</i>				