

Applied Chemistry with Management Studies

Course List

<i>Code</i>	<i>Course Title</i>	<i>Unit</i>
CHM2120	Main Group Chemistry	2
CHM2200	Basic Principles and Hydrocarbons	3
CHM2320	Fundamentals of Spectroscopic Analysis	2
CHM2380	Chemical Safety and Practice	2
CHM2400	Analytical Chemistry	2
CHM2408	Analytical Chemistry Laboratory I	2
CHM3130	Transition Metal Chemistry	3
CHM3220	Alcohols, Ethers and Carbonyl Compounds	2
CHM3230	Amines, Arenes and Heterocycles	2
CHM3410	Instrumental Analysis	3
CHM3870	Analytical Chemistry Laboratory II	2
^A CHM4030	Polymer Science	2
CHM4430	Practices in Testing Laboratory	2
CHM4400	Advanced Analytical Chemistry	2
CHM4870	Analytical Chemistry Laboratory III	1
^A CHM5640	Pharmaceutical Science	2
CMS2301	Chemical Thermodynamics	3
CMS2852	Introductory Inorganic Chemistry Laboratory	1
CMS2822	Introductory Organic Chemistry Laboratory	1
CMS2832	Basic Physical Chemistry Laboratory	1
CMS3321	Chemical Equilibrium and Kinetics	2
CMS3880	Integrated Laboratory	2
CMS481/4482	Special Project I/II	0/2
ENS4525	Environmental Chemistry II	3
MGT1010	Introduction to Business	3
MGT1020	Principles of Management	3

The following Chemistry elective courses are offered to graduate students in the Chemistry Division (except CHM 4100 and 4200) and undergraduates in the Applied Chemistry with Management Studies programme in their final year of attendance. Topics offered each year are to be decided by department on selective basis.

CHM4100	Advanced Inorganic Chemistry	3
CHM4200	Pericyclic Reactions and Biomolecules	2
CHM5040	Organic Polymer Chemistry	2
CHM5080	Introduction to Macromolecules	2
CHM5510	Inorganic Reaction Mechanisms	2
CHM5520	Physical Methods in Inorganic Chemistry	2
CHM5530	Organometallic Chemistry	2
CHM5540	Bioinorganic Chemistry	2
CHM5550	Organolanthanide Chemistry	2
CHM5620	Synthetic Methods in Organic Chemistry	2
CHM5630	Synthesis of Natural Products	2
CHM5650	Bioorganic Chemistry	2
CHM5710	Quantum Chemistry	2

^D Courses offered in alternate years.

CHM5720	MolecularModelling	2
CHM5730	Special Topics in Chemistry	2
CHM5740	Advanced Chemical Kinetics	2
CHM5750	Surface and Interface Analysis	2
CHM5760	X-ray Crystallography	2
CHM5780	Mass Spectrometry of Biomolecules	2
CHM5781	Advanced NMR Spectroscopy	2
CHM5782	Principles of BiomolecularNMR Spectroscopy	2
CHM5783	Introduction to Laser Spectroscopy	2
CHM5910	Current Topics in Chemistry	2

The following courses offered by the Faculty of Business Administration are for the choice of undergraduates in the second and third years of attendance.

Group 1 (for second year of attendance)

DSE 2030	Operations Management	3
FIN 2010	Financial Management	3
MGT 2040	Human Resource Management	3
MGT 2510	Introduction to International Business	3
MKT 2010	Marketing Management	3

Group 2 (for third year of attendance)

DSE 4150	ElectronicCommerce	3
DSE 4170	Global eBusiness and Logistics	3
DSE 4180	Global Supply Chain Management	3
DSE 4190	Service Quality Management	3
DSE 4210	Decision Support and Knowledge Management Systems	3
DSE 4220	Data Mining for Managers	3
DSE 4230	Information Systems Practicum	3
MGT 3010	Organizational Behaviour	3
MGT 3040	Human Resource Planning and Staffing	3
MGT 3060	Training and Development	3
MGT 3580	Global Enterprise Management	3
MGT 4010	Business Policy and Strategy	3
MGT4050	Performance and Compensation Management	3
MGT4060	Managing Employment Relations	3
MGT4080	Managerial Skills for Modern Managers	3
MGT4110	Selected Topics in Management	3
MGT4130	Consultancy and Change Management	3
MGT4510	China Business	3
MGT4540	Asian Business	3
MGT4570	Global Entrepreneurship	3
MKT3020	Consumer Behaviour	3
MKT3030	Advertising and Promotion Management	3
MKT3050	Multinational Marketing	3
MKT4020	Retail and Channel Management	3
MKT4030	Service Marketing	3
MKT4040	Strategic Marketing	3
MKT4070	China Marketing	3

Course Description

(Except the following courses, for the course descriptions of CHM, ENS and BA courses, please refer to the Chemistry, Environment Science and Integrated BBA Programme respectively.)

CHM4030

Polymer Science

2 U; 2 Lect.; 1st term

Basic concepts of polymer; basic polymerization methods; basic methods used in polymer characterization and research; basic relation between polymer structures and properties; and basic applications of common polymer materials.

CHM4430

Practices in Testing Laboratory

2 U; 2 Lect.; 2nd term

General practices and rules in testing laboratory. ISO Guide 17025. Laboratory accreditation in HK (HOKLAS). Error analysis techniques. Proficiency testing. Case study in testing laboratories.

CHM 5640

Pharmaceutical Science

2 U; 2 Lect.; 2nd term

Physicochemical principles of drug action. Molecular mode of drug action. Receptor-effector theory. Drug distribution and metabolism. Principles of drug design. Drug synthesis. Common drugs and their physiological mode of action.

CMS 2852

Introductory Inorganic Chemistry Laboratory

1 U; 4 Lab./fortnight; 1st term

To be taken in conjunction with CHM 2120. Laboratory work covers inorganic synthesis, modern techniques of analysis, and experiments designed to illustrate the theoretical principles.

CMS 2822

Introductory Organic Chemistry Laboratory

1 U; 4 Lab./fortnight; 2nd term

To be taken in conjunction with CHM 2200. The laboratory work covers basic techniques in organic chemistry.

CMS 2301

Chemical Thermodynamics

3 U; 3 Lect.; 2nd term

Thermodynamics and the first law. Thermochemistry. Thermodynamics and the second law. The Gibbs free energy. Phase equilibria of pure substances. The properties of mixtures.

CMS 2832

Basic Physical Chemistry Laboratory

1 U; 4 Lab./fortnight; 2nd term

To be taken in conjunction with CMS 2301. This course attempts to acquaint the students with the basic principles of thermodynamics, NMR, ESR and IR and their applications.

CMS 3321

Chemical Equilibrium and Kinetics

2 U; 2 Lect.; 1st term

Principles of chemical equilibrium. Electrochemistry. The rates of reactions. Accounting for the rate laws.

CMS 3880

Integrated Laboratory

2 U; 4 Lab.; 2nd term

Laboratory work involving more advanced and/or project-oriented experiments in chemistry.

CMS4481/4482

Special Project I/II

0/2 U; 2 STOT; 2-term

Students in this course will work on project-oriented experiments in chemistry or internship work in an industrial environment during summer vacation and term time. At the end of the project students are required to give an oral presentation and write a report on the project.

Study Scheme

1. Major Programme

Students are required to complete a minimum of 69 units of courses as follows (Please see Note):

Chemistry Courses :	51 units
CHM2120,2200,2320,2380,2400,2408,3130,3220,3230,3410,3870, 4030,4400,4430,4870,5640,CMS2301,2822,2832,2852,3321,3880, 4481/4482, ENS 4525 and 2 units of elective chemistry courses.	
BA Courses#:	18 units
MGT 1010,1020 and four elective courses from: DSE 2030, 4150, 4170,4180,4190,4210,4220,4230,FIN2010,MGT2040,2510,3010, 3040,3060,3580,4010,4050,4060,4080,4110,4130,4510,4540,4570, MKT2010,3020,3030,3050,4020,4030,4040,4070 (For course descriptions, please refer to the Integrated BBA Programme.)	
	Total: 69 units

to be included in the Major GPA as well

Recommended course pattern

<i>First Year of Attendance</i>	25 units
CHM 2120, 2200, 2320, 2380, 2400/2408, CMS 2301, 2822, 2832, 2852, MGT 1010, 1020	
<i>Second Year of Attendance</i>	24 units
CHM 3130, 3220, 3230, 3410, 3870, 4030 or 5640, CMS 3321, 3880, and two BA courses from DSE 2030, FIN 2010, MGT 2040, 2510, MKT 2010	
<i>Third Year of Attendance</i>	20 units
CHM 4400, 4430, 4870, 4030 or 5640, CMS 4481/4482, ENS 4525, one Chemistry elective and two BA courses from DSE 4150, 4170, 4180, 4190, 4210, 4220, 4230, MGT 3010, 3040, 3060, 3580, 4010, 4050, 4060, 4080, 4110, 4130, 4510, 4540, 4570, MKT 3020, 3030, 3050, 4020, 4030, 4040, 4070	
	Total: 69 units

Note: Students should obtain Grade “D” or above in each of the courses of CHM 2120, 2200, 2320, 2380, 2400/2408, CMS 2301, 2822, 2832, 2852, MGT 1010 and 1020. Otherwise, they are required to repeat the courses. Students who cannot meet the Grade “D” requirement in any one of the courses mentioned above after two attempts will be required to withdraw from the University. Please refer to Reg. 15.2 (d) of the General Regulations Governing Full-time Undergraduate Studies.

2. Faculty Language Requirement

(Please refer to the “Faculty Language Requirement” of Faculty of Science for details.)