

Chemistry Talk (Major / Intensive Major / Minor)

10 Aug 2018







Talk Schedule

A Quick Look at the CHEM Major / Intensive Major / Minor Curriculum & Course Information (by Dr. A P L Tong)



Small Group Discussion (Sharing by the <u>Chemistry Student</u>

<u>Helpers</u> on experience in selecting courses and planning study route.)



Teaching Staff Members in Department of Chemistry (in alphabetic order)



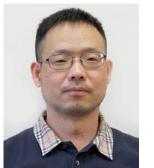
Head of Department Prof. C.M. Che



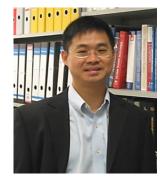
Dr. H Y Au-Yeung



Dr. W T Chan



Prof. G.H. Chen



Dr. I K Chu



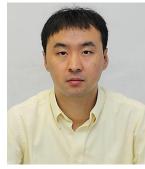
Dr. X Li



Prof. K Y Chan



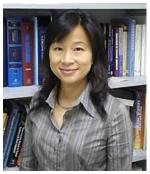
Prof. A S C Cheung



Prof. X C Li



Prof. W K Chan



Prof. P. Chiu



Dr. X Y Li

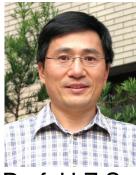
Teaching Staff Members (in alphabetic order)



Dr. K M Ng



Prof. D L Phillips



Prof. H Z Sun



Dr. J Y Tang



Dr. A P L Tong



Dr. J Yang





Prof. V W W Yam



Dr. E C M Tse



Prof. D Yang



Dr. Y F Wang



Dr. A M Y Yuen

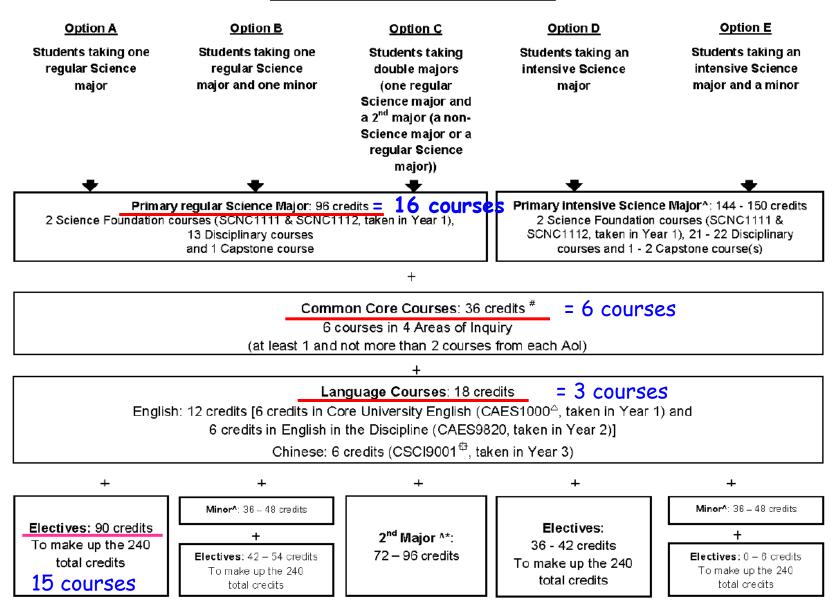
BSc Curriculum: Choose one option

Refer to Document B P.1

40 courses

Curriculum requirements (240 credits)

General Talk 2:00 – 3:00 pm Grand Hall for Year 1 CPD-2.19 for Years 2/3



BSc Graduation Requirements

Award of a BSc degree Refer to Document B P.3

General Talk 2:00 - 3:00 pm Grand Hall for Year 1 CPD-2.19 for Years 2/3

To be eligible for the award of the degree of Bachelor of Science, students must fulfill the following requirements:

- (i)Satisfied the requirements in <u>UG5</u> of the Regulations for First Degree Curricula #;
- (ii) Passed not fewer than 240 credits, comprising

For students admitted in 2017-18 or before, and students admitted directly to the second/third year in 2018-19 or before:

96 credits of the required courses as prescribed in the regular major programme of the BSc degree curriculum.

For students admitted to the first year in 2018-19 and thereafter:

96 credits of the required courses as prescribed in the regular major programme, or 144 credits (or a higher credit requirement by the accredited bodies) of the prescribed courses in the intensive major programme, of the BSc degree curriculum.

Declaration of BSc Major/Minor

General Talk 2:00 – 3:00 pm Grand Hall for Year 1 CPD-2.19 for Years 2/3

Refer to Document B P.4

- As you are <u>not</u> required to declare your major in the first year, you can try out courses that suit your academic interests before you commit to a particular major.
- You have to declare your primary Science major online during the course selection period in August before the start of your third year of study, the latest. After that, you can still change the declared major as long as the online course selection system is opened in the 1st semester of your last academic year for graduation.

Science Course

General Talk 2:00 – 3:00 pm Grand Hall for Year 1 CPD-2.19 for Years 2/3

Refer to Document B P.4

- An <u>introductory</u> Science course means any <u>levels 1 and 2</u> course offered by the Faculty of Science and the Department of Biochemistry.
- An advanced Science course means any levels 3, 4 and above course.

Introductory level course	Course code starting with 1 or 2 e.g. CHEM1042 General chemistry I, CHEM2541 Introductory physical chemistry
Advanced level course	Course code starting with 3 , 4 or 7 e.g. CHEM3341 Inorganic chemistry II CHEM4443 Integrated organic synthesis



Refer to Document A P.1-2

Major in Chemistry (96 credits)

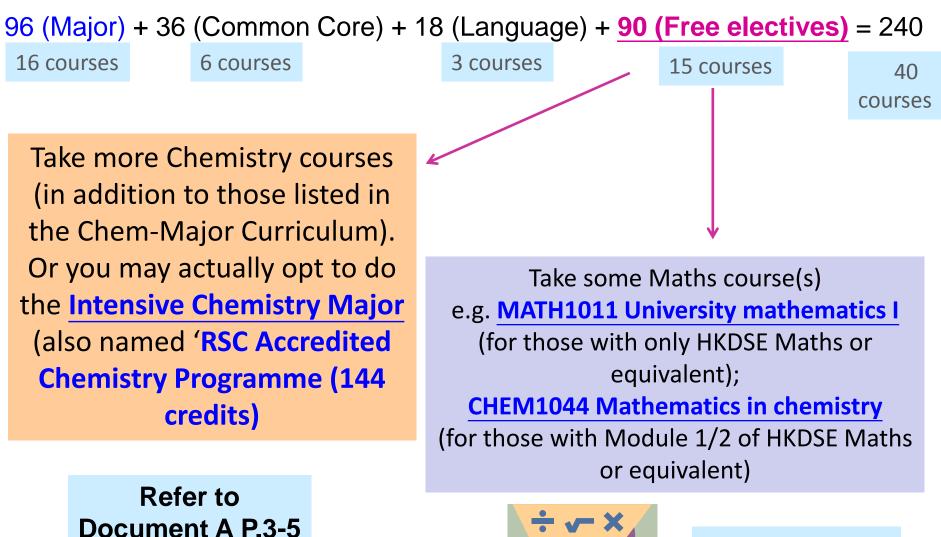


Intensive Major in Chemistry (144 credits) (also called RSC Accredited Chemistry Programme)

Major in Chemistry

Minimum Entry Requirement: Level 3 in HKDSE Chemistry or equivalent or a pass in CHEM1041

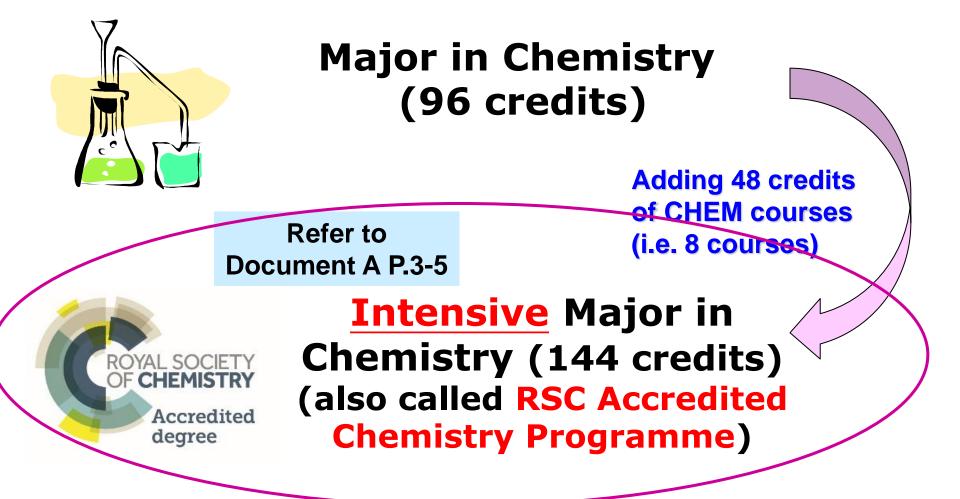
Deferte	Required courses (96 credits)	All courses a	re <u>6-credit</u> unless stated otherv	vise.
Refer to	1. Introductory level courses (48 credi			
Document A P.2	Disciplinary Core Courses: Science Fou		s)	
	SCNC1111 Scientific method and rea SCNC1112 Fundamentals of modern			_
CHEM1042	Disciplinary Core Courses (36 credits)	30101100	You are strongly	
CITEIVI1042	CHEM1042 General chemistry I		encouraged to	
	CHEM1043 General chemistry II		take more	
	CHEM2241 Analytical chemistry I			
·	CHEM2341 Inorganic chemistry I		Chemistry courses	
CHEM1043	CHEM2441 Organic chemistry I CHEM2541 Introductory physical che	mistry	as electives!	
	211.2		(You have 90	
	 Advanced level courses (42 credits) Disciplinary Core Courses (30 credits) 		credits for	
	CHEM3241 Analytical chemistry II: ch	nemical instrumentation	electives.)	
Level 2	CHEM3341 Inorganic chemistry II	ionnour motifattion tation		
	CHEM3441 Organic chemistry II			
(and so on)	CHEM3443 Organic chemistry labora			
	CHEM3541 Physical chemistry: introd	duction to quantum chemistr	У	
	Disciplinary Electives (12 credits)			
	At least 12 credits of any level 4 Chem List A (This list may be subject to change			ite
	from time to time):	Thease one on the online synax	bus on the science faculty webs	nic.
	CHEM4142 CHEM4147	CHEM4342	CHEM4542	
	CHEM4143 CHEM4241	CHEM4441	CHEM4543	
	CHEM4144 CHEM4242 CHEM4145 CHEM4341	CHEM4443 CHEM4444	CHEM4544	
	L		أــــــأ	
At least 6 credits selected from the following courses:				
	CHEM3999 Directed studies in chemistry CHEM4910 Chemistry literacy and research			
	CHEM4910 Capstone experience for chemistry undergraduates: HKUtopia			
	CHEM4966 Chemistry internship			
	CHEM4999 Chemistry project (12)			10





Refer to Document D





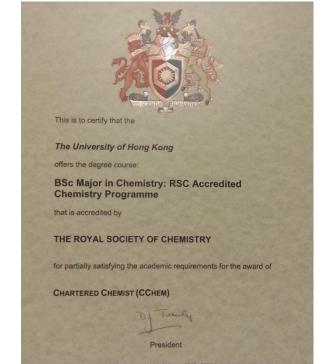


Intensive Chemistry Major/RSC Accredited Programme (144 credits)

The Royal Society of Chemistry (RSC) in the UK is one of the world's leading chemistry communities and professional associations.

The RSC accreditation is a strong recognition of:

- Very high standards
- Global practice
- Effective development of students





Intensive Chemistry Major/RSC Accredited Programme (144 credits)

- Students having completed the RSC accredited chemistry programme will be awarded a certificate by the Department, with authorization by RSC, to recognise their achievements.
- All students in the final year of this accredited programme are qualified to apply for membership to RSC. A graduate with RSC membership will have an advantage, not only when applying for jobs, but also when they are seeking professional qualifications, such as Chartered Chemist (CChem) status.
- The RSC accreditation will further improve the visibility and recognition of our Chemistry programme and also enhance our students' chances to pursue higher education and obtain employment both locally and overseas.

Minimum Entry Requirement: Level 3 in HKDSE Chemistry or equivalent or a pass in CHEM1041

Intensive Major in Chemistry (RSC Accredited Chemistry Programme)

Required courses (144 credits)

All courses are **<u>6-credit</u>** unless stated otherwise.

1. Introductory level courses (54 credits) Disciplinary Core Courses: Science Foundation Courses (12 credits) SCNC1111 Scientific method and reasoning (note 2) SCNC1112 Fundamentals of modern science (note 2) CHEM1042(Yr 1 S1) Disciplinary Core Courses (36 credits) CHEM1042 General chemistry I (note 2) CHEM1043 General chemistry II (note 2) CHEM2241 Analytical chemistry I (note 2) CHEM1043 (Yr 1 S2) CHEM2341 Inorganic chemistry I (note 2) CHEM2441 Organic chemistry I (note 2) Introductory physical chemistry CHEM2541 (note 2) Take 1 or 2 from (CHEM2241/2341/2441) (Yr 1 S2) Disciplinary Electives (6 credits) (Students are encouraged to meet with a Che Take the remaining in Yr 2 S1 discuss which of the following courses they : Take CHEM2541 in Yr 2 S2 CHEM1044 Mathematics in chemistry COMP1117 Computer programming MATH1011 University mathamatics I If you will take CHEM1044, it is good to take it in University mathamatics II MATH1013 Yr 1 S2 or Yr 2 S2 STAT1601 Elementary statistics methods STAT1603 Introductory statistics

2. Advanced level courses (78 credits)

Disciplinary Core Courses (66 credits)

- CHEM3143 Introduction to materials chemistry
- CHEM3241 Analytical chemistry II: chemical instrumentation
- CHEM3341 Inorganic chemistry II
- CHEM3441 Organic chemistry II
- CHEM3443 Organic chemistry laboratory
- CHEM3445 Integrated laboratory

Take Level-3 CHEM courses as early as possible (Must take CHEM3541 in Yr 3 S1 to avoid time clash with 4142 & 4241)

(note 2)

- CHEM3541 Physical chemistry: introduction to quantum chemistry
- CHEM3542 Physical chemistry: statistical thermodynamics and kinetics theory
- CHEM4142 Symmetry, group theory and applications
- CHEM4144 Advanced materials
- CHEM4241 Modern chemical instrumentation and applications

Disciplinary Electives (12 credits)

At least **12** credits selected from the following courses:

(Note that one of the two elective courses selected **must** contain a laboratory component. Courses marked with (lab) have a laboratory component. The list of electives given below may be subject to change.)

CHEM4143 Interfacial science and technology	CHEM4441 Advanced organic chemistry
CHEM4145 Medicinal chemistry	CHEM4443 Integrated organic synthesis (lab)
CHEM4147 Supramolecular chemistry	CHEM4444 Chemical biology
CHEM4242 Analytical chemistry (lab)	CHEM4542 Computational chemistry (lab)
CHEM4341 Advanced inorganic chemistry	CHEM4543 Advanced physical chemistry
CHEM4342 Organometallic chemistry (lab)	CHEM4544 Electrochemical science and technology
	(lab)

3. Capstone requirement (6 credits)

Select 12 credits from the following courses:

- CHEM3999 Directed studies in chemistry
- CHEM4966 Chemistry internship
- CHEM4999 Chemistry project (12)

Notes:

1. Students must have level 3 or above in HKDSE Chemistry or equivalent to take this major. Students who do not fulfill this requirement are advised to take CHEM1041 Foundations of chemistry.

2. These are core courses in the regular Chemistry Major (96 credits) curriculum.

3. As this curriculum is accredited by the Royal Society of Chemistry (RSC), **students must follow the curriculum in full** (i.e. no replacement courses are possible) in order to graduate with this accredited programme. For students who have credit transfer from exchange studies, for example) a student took CHEM3A and CHEM3B in a host university during his/her exchange studies and these two courses have been approved by the Faculty of Science to be considered equivalent as CHEM3241 and CHEM3341, they will be considered taking those HKU-version courses and in the example shown here, the student is deemed to have taken CHEM3241 and CHEM3341 to fulfil the accredited curriculum.

Remarks:

Important! Ultimate responsibility rests with students to ensure that the required pre-requisites and co-requisite of selected courses are fulfilled. Students must take and pass all required courses in the selected primary science major in order to satisfy the degree graduation requirements.

http://www.govtlab.gov.hk/english/vacan.htm

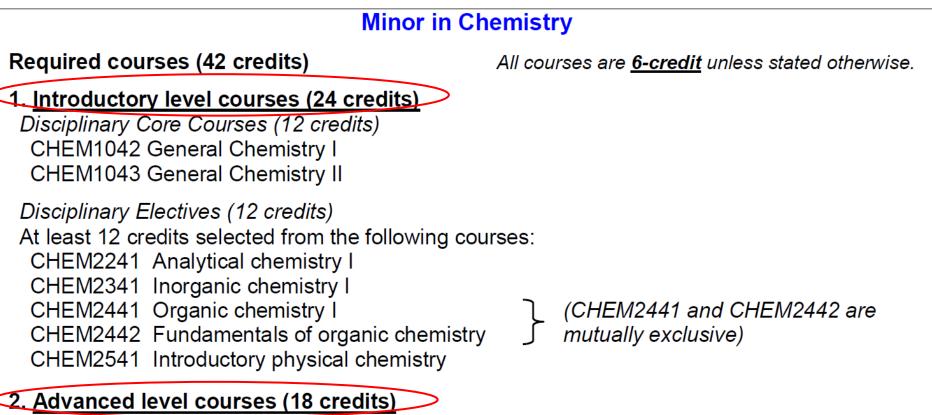
Service Bureau.

Government La	boratory Hong Kong Special Administrative Region	
GovHK香港政府一站通 繁體		
Home	Print This Page	
What's New	Career Opportunities	
About Us	The two main grades in which scientific staff in the Government Laboratory are employed are:	
Publications	1. the professional grade, with Chemist as the entry rank, and	
Access to Information	2. the technical grade, with Science Laboratory Technician II as the entry rank.	
ublic Forms	The basic entry requirements for the Chemist rank are:	
ender Information	 a good honours degree (1st or 2nd class honours) in Chemistry, Biochemistry or Forensic Science from a Hong Kong university or equivalent and a Master Degree in Chemistry, Biochemistry, Forensic Science, Food Science or Environmental Science from a Hong Kong university or equivalent; 	
areer Opportunities		
hoto Gallery	OR	
nteractive Glossary of hemical Terms	 a good honours degree (1st or 2nd class honours) in Chemistry, Biochemistry or Forensic Science from a Hong Kong university or equivalent and two years' relevant post-graduate experience; 	
nks	AND	
eful Telephone Numbers I Addresses	3. a pass result in the Aptitude Test in the Common Recruitment Examination (CRE);	
	AND	
Inline Enquiry	4. having met the language proficiency requirements of 'Level 1' results in the two language papers (Use of	
etrology in Chemistry	Chinese and Use of English) in the CRE, or equivalent.	
Proficiency Testing Programmes	(Note: Candidates should have taken Chemistry, Biochemistry or Forensic Science as a major subject for the Bachelor Degree, i.e. with 2/3 of the total number of units or papers taken in Chemistry, Biochemistry or Forensic	
raining & Development	Science.)	
ollaborations	The basic entry requirements for Science Laboratory Technician II are:	
utsourcing Activities	1. a Diploma in Chemical Technology from a Hong Kong polytechnic / polytechnic university, the Hong Kong	
Accessibility	Institute of Vocational Education or a technical college / technical institute, or equivalent;	
ontact Us	AND	
□ □ ₩eb For All	 met the language proficiency requirements of Level 2 or above in Chinese Language and English Language in the Hong Kong Diploma of Secondary Education Examination or Hong Kong Certificate of Education Examination, or equivalent ^{Note}. (Note: For civil service appointment purpose, with effect from 8 August 2007, 'Grade C' and 'Grade E' in Chinese Language and English Language (Syllabus B) in previous HKCEE are accepted administratively as comparable to 	
W3C WAI-AA WCAG 2.0	 'Level 3' and 'Level 2' respectively in Chinese Language and English Language in the 2007 HKCEE.) Interested parties who wish to apply for a position in the Government Laboratory should look for appropriate HKSAR Government recruitment advertisements in newspapers or in Government Vacancies Enquiry System on the internet. Enquiry and application procedures of the Common Recruitment Examination is available at the webpage of Civil Service Bureau 	

Minor in Chemistry

Minimum Entry Requirement:

Level 3 in HKDSE Chemistry or equivalent or a pass in CHEM1041



At least 18 credits of advanced level Chemistry courses (CHEM3XXX or CHEM4XXX level), subject to pre-requisite requirements. Please refer to the online syllabus for the current course list (<u>http://webapp.science.hku.hk/sr4/servlet/enquiry</u>).

For details of Chemistry Courses on offer in 2018-19, please refer to

Document C

Department of Chemistry Website: www.chemistry.hku.hk



Dick Arthur Memorial Prize in Chemistry (\$2,800) **Douglas Payne Prizes in Chemistry (\$1,200)** G.T. Byrne Memorial Prize in Chemistry (\$5,000) Cheung King Pak Memorial Scholarship(\$10,000) **Dorothy Collins Memorial Scholarships (\$10,000)** Mak Kai Hung Memorial Scholarships (\$10,000) Norman Chui Scholarship (\$5,000) **Rayson Huang Scholarships (\$10,000)** Vacoas II Trust Scholarships (\$10,000)

Course Selection Exercise

General Talk 2:00 – 3:00 pm Grand Hall for Year 1 CPD-2.19 for Years 2/3

BSc and BSc(ActuarSc) – Year 1

Refer to	Date (2018)	Event	Venue
Document B	From August 9	The course information system opens for freshmen (after performing master registration online) to preview available courses in the first and second semesters.	HKU Portal – SIS
P.5-6	August 10	Induction Day for BSc Freshmen (9:30 am - 4:00 pm) (In addition to a general talk session, representatives from each Science major/minor will be present to advise students on general, as well as specific aspects, of course selection. Teachers and students will also be available in the information booths for each Science major and minor to answer questions.) Information Session for BSc(AC) Freshmen (2:00 pm - 4:00 pm) (Demonstration for BSc(AC) Freshmen (2:00 pm - 4:00 pm)	Grand Hall, Lower Ground Floor, Centennial Campus
		Information Session for BSc(AC) Freshmen (2:00 pm – 4:00 pm) (Representatives from Actuarial Science programme will be present to advise students on general, as well as specific aspects, of course selection. Towards the end of the session, students are free to ask questions.)	CPD-LG.18, Lower Ground Floor, Central Podium Levels, Centennial Campus
	August 17 (by 6:00 pm)	Deadline of Application for (a) Granting of Advanced Standing and (b) Exemption from Taking Chinese language course	Faculty Office
\longrightarrow	August 23 (10:00 am) – August 28 (4:00 pm)	 On-line course selection system available: Semester 1 / full-year courses from 10:00 am Semester 2 courses from 10:10 am (Note: Selection of summer courses will only be available during the 2nd semester add/drop period.) 	HKU Portal – SIS
		Students to seek advice from Course Selection Advisers on how to select courses	Course Selection Advisers' offices
	August 24 (9:00 am – 2:30 pm)	Suspension period of the online course selection system (Course add/drop is not allowed.) Students are highly recommended to select courses which require course based approval before the suspension period.	
\rightarrow	August 28 (by 4:00 pm)	 Closing date for students' submission of: (a) Application Form for Taking Course Load Deviating from the Normal Load in a given semester, with the written endorsement from the Chief Course Selection Adviser of the intended primary major/programme (if applicable); (<u>Note</u>: Students are not allowed to take more than 72 credits of courses in the first year of study.) (b) Course Approval Form* (if applicable); and (c) Application Form for Taking a Replacement Course (if applicable) 	Faculty Office
\longrightarrow	September 1 (9:00 am)	Checking of course selection status and ballot result (including CAES1000) on-line	HKU Portal – SIS

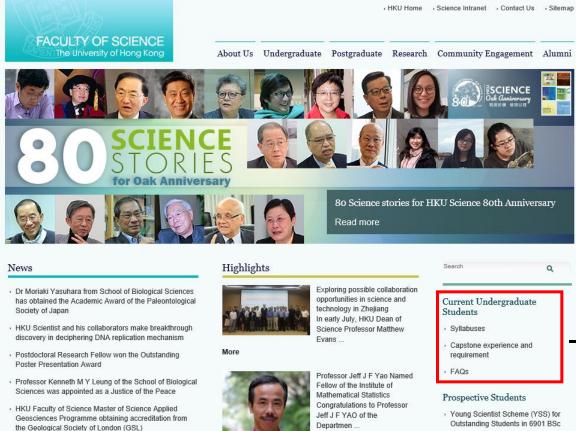
Course Selection Exercise

Refer to	BSc & BSc(ActuarSc) – Year 2 and above		
Document B	Date (2018)	Event	Venue
	July 30 (10:00 am)	The course information system opens for Year 2 and above students to preview their available courses in the first and second semesters.	HKU Portal – SIS
	August 7 (10:00 am) – August 13 (4:00 pm)	 On-line course selection system available on August 7 to: Year 4 or above students: Semester 1 / full-year courses from 10:00 am; Semester 2 courses from 10:10 am Year 3 students: Semester 1 / full-year courses from 12:00 nn; Semester 2 courses from 12:10 pm Year 2 students: Semester 1 / full-year courses from 2:00 pm; Semester 2 courses from 2:10 pm (Note: Selection of summer courses will only be available during the 2nd semester add/drop period.) 	HKU Portal – SIS
		Students to seek advice from Course Selection Advisers on how to select courses	Course Selection Advisers' offices
1	August 7 10:00 am – 12:00 nn 2:00 pm – 4:00 pm	Consultation Session for BSc Year 2 and above students (Representatives from each Science major/minor will be available to advise students on course selection) Consultation Session for BSc(ActuarSc) Year 2 and above students (Representatives from the Actuarial Science programme will be available to advise	See page 91 of this handbook
		students on course selection)	
	August 8 (9:00 am – 2:30 pm)	Suspension period of the online course selection system (Course add/drop is not allowed.) Students are highly recommended to select courses which require course based approval before the suspension period.	
	August 13 (by 4:00 pm)	 Closing date for submission of: (a) Application Form for Taking Course Load Deviating from the Normal Load in a given semester, with written endorsement from the Chief Course Selection Adviser of the primary major/programme (if applicable); (b) Course Approval Form* (if applicable); (c) Application Form for Taking a Replacement Course (if applicable); and (d) Application Form for Exemption From Taking a Capstone Course in the Second (Science) Major (if applicable) 	Faculty Office
	August 21 (10:00 am)	Checking of course selection status and ballot result (including CAES9820) on-line	HKU Portal – SIS

23

Useful Information to Chemistry Students for Course Selection **Refer to Document E**

Faculty of Science Website: http://www.scifac.hku.hk/



- HKU Science Ranks High in QS World University Rankings by Subject 2018
- HKU Faculty of Science obtained new accreditation for the Majors of Ecology & Biodiversity and Molecular Biology & Biotechnology

More News



More

Cheque Presentation

establishment of Norman and

Cecilia Yip Professorship in Bioinorganic Chemistry

Ceremony for the



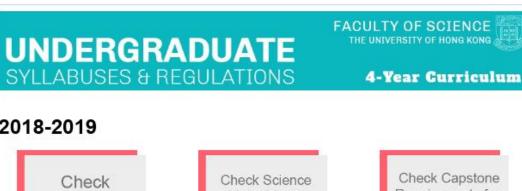
- 6901 Bachelor of Science
- 6729 BSc in Actuarial Science
- FAQ
- > 6901 BSc Admission Talk Presentation File
- International Students' Corner



Refer to Document E

http://www.scifac.hku.hk/ug/current/advising/bsc/handbook

****** Syllabuses



2018-2019



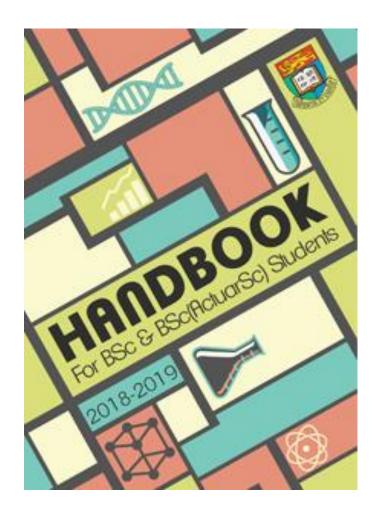
Major/Minor/ Programe Structure

Requirements for Each Major/ Programme

Other Information:

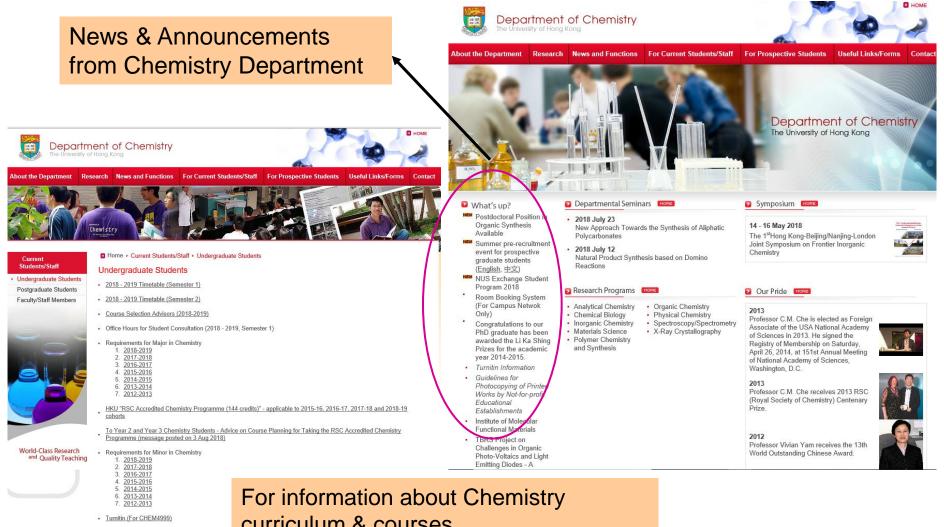
- Degree Regulations BSc / BSc(Actuarial Science)
- University Regulations for First Degree Curricula
- Graduation Requirements and Honours Classification: BSc / BSc(Actuarial Science)
- Equivalency of HKDSE and other gualifications
- Students taking double Majors, Major-Minor or double Minors with overlapping course requirements
- Credit Unit Statement BSc / BSc(Actuarial Science)
- Past Syllabuses and Regulations (2017-2018 or before)

Student Handbook



Refer to Document D

Department of Chemistry Website: <u>http://www.chemistry.hku.hk</u>



Course Descriptions(2018-19)

curriculum & courses, go to "For Current Students/Staff" → Undergraduate Students

Refer to Document D

Your (Chemistry) Course Selection Advisors

Course Selection Advisors	Contact information	
Dr. H Y Au-Yeung	Rm 503, CYM Chemistry Building Tel: 2219 4697 Email: <u>hoyuay@hku.hk</u>	
Dr. W T Chan	Rm 305, CYM Chemistry Building Tel: 2859 2156 Email: <u>wtchan@hku.hk</u>	
Dr. A P L Tong	Rm 602, CYM Chemistry Building Tel: 3917 7918 Email: <u>apltong@hku.hk</u>	
Dr. A M Y Yuen	Rm 407, Hui Oi Chow Science Building Tel: 3917 6077 Email: <u>maiyan@hku.hk</u>	

CYM Building – Chong Yuet Ming Building



General Office: G/F, Chong Yuet Ming Chemistry Building

Tel. No.:

Website:

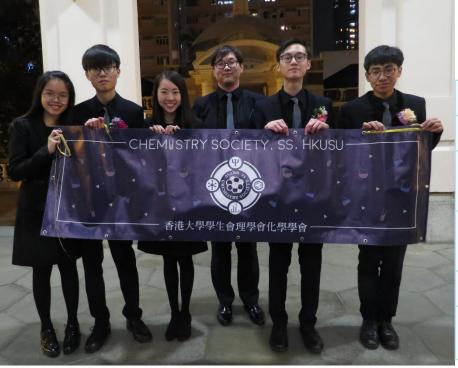
E-mail:

http://www.chemistry.hku.hk

2859 7919 or 2241 5131

chemmail@hku.hk





Executive Committee of Chemistry Society – Current Session (Metaligand)

	Chairman	HUNG Pak Yam, Linus
	Internal Vice-Chairman	CHAN Hoi Ying, Iris
	External Vice-Chairman and Acting Academic Secretary	LI Shek Ning, Rock
	General Secretary and Acting Marketing Secretary	HAU Cheuk Hin, Alvin
	Financial Secretary	WONG Tsz Chung, Jimmy
	Publication and Publicity Secretary	NG Yan Kiu Brigid Bernadette

Student Peer Advisors (SPAs)



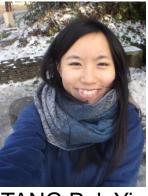
CHOW Sung In Sunny (BSc Y2)



WONG Kin Long (BSc Y2)



HALIM Melanie (BSc Y4)



TANG Pak YinTSANG YatingNaomi (BSc Y3)Rebecca (BSc Y4)

Small Group Discussion – Student Sharing on Course Selection & Planning Study Route 10:55am – 11:15am; 1:25pm – 1:45pm

