Curriculum of BSc&MRes Degrees (*Science Master Class)*

All students admitted to the first year of the 6688 BSc&MRes programme in the academic year of 2021-22 and thereafter are required to complete one Science major out of the 7 intensive Science majors as your major for the award of the BSc degree. In addition to the Science major, you may optionally take a minor offered by any Faculty, provided that you fully satisfy the course requirements within the maximum curriculum study load (i.e. 288 credits) of undergraduate courses for the normative period of study. Students should note that some non-Science minors may require students to have achieved a minimum academic result before they are allowed to enrol in them.

To complete the BSc&MRes curriculum, you have to pass not fewer than a total of 303 credits, consisting of not fewer than 240 credits for the Bachelor of Science (BSc) degree and 63 credits for the Master of Research (MRes) degree, normally spread over four years of full-time study for the Bachelor of Science Programme, with the Master of Research integrated into the BSc curriculum from Year 2 onwards.

In your first 2 years of study, the normal course load is 72 credits of undergraduate courses per year, with no less than 30 credits and no more than 36 credits in the first/second semester. You may, of your own volition, take additional credits not exceeding 6 credits in each semester, and/or further credits during the summer semester, accumulating up to a maximum of 84 credits in one academic year. You should, however, note that the total number of credits of undergraduate courses taken cannot exceed the maximum curriculum study load of 288 credits (with inclusive of those advanced standing credits and/or transferred credits granted, if any) for the normative period of study. Under normal circumstances, you should take and complete a 3-credit postgraduate course on research ethics (i.e. INRE6033) in year 2.

In your senior years (i.e. 3rd and 4th years) of study, the normal course load is 78 credits of undergraduate and postgraduate courses per year, with no less than 30 credits and no more than 36 credits in the first/second semester. You may, of your own volition, take additional credits not exceeding 6 credits in each semester, and/or further credits during the summer semester, accumulating up to a maximum of 84 credits in one academic year.

(a) The BSc Degree (240 credits):

To complete the BSc degree curriculum, you have to pass at least 240 credits, equivalent to 40 6-credit courses, which comprises:

(i) UG5:

For students admitted in 2025-26 and thereafter

- A non-credit bearing Academic Communication in English course[+]
- 6 credits in an English in the Discipline course
- 6 credits in a Chinese language enhancement course[@]
- 24 credits in the Common Core Curriculum, comprising courses from four of the five Areas of Inquiry with 6 credits from each selected Area of Inquiry
- 6 credits in artificial intelligence literacy
- A non-credit bearing course in national education and national security education

For students admitted in 2024-25 or before

- 2 English courses* and 1 Chinese course[^] for university language requirements (18 credits)
- 4 common core courses, including one course from each Area of Inquiry (24 credits)
- any other non-credit bearing courses as required (0 credit)

(ii) Intensive Science major:

- 24 - 25 courses for the intensive Science major including 2 Science Foundation courses[#],

Disciplinary courses and capstone course(s) (144 - 150 credits)
- A choice of 8 - 9 courses as elective courses, or to fulfil the requirements of a minor (36-48 credits)

The intensive science majors available include the followings:

- Biological Sciences (Intensive)
- Chemistry (Intensive)
- Ecology & Biodiversity (Intensive)
- Geology (Intensive)
- Mathematics (Intensive)
- Molecular Biology & Biotechnology (Intensive)
- Physics (Intensive)

The syllabuses of the intensive science majors can be found at https://webapp.science.hku.hk/sr4/servlet/enquiry

You are expected to have 1-year abroad experience in a university for exchange/visiting study and/or conducting research project (e.g. Summer Research Fellowship, Overseas Research Fellowship) in either Year 2 or 3.

Students have to achieve a CGPA of 3.6 or above at the end of Year 2 to remain enrolled in this dual degree programme, or else they have to switch to the 6901 BSc programme.

Notes:

[+] Students who have been admitted to Year 1 in 2026-27 (and thereafter) and have achieved any one of the following qualifications are exempted from this requirement, and Academic Communication in English (ACE) is optional. Optional students may take this course as an elective on a non-credit bearing basis:

- Level 5 or above in English Language in the HKDSE
- holder of a Bachelor's degree from an English-medium university
- achieved Grade A or above in English Language at **GCSE/ GCEO** / English First Language at **IGCSE** / English Second Language at **IGCSE** / English Language or English Literature at **GCE AS/ AL**
- achieved an overall **IELTS** score of no less than 7 **AND** with all sub-scores no less than 6.5 on the Reading, Speaking, Listening, and Writing Tests
- achieved an overall **TOEFL Internet-based test** score of no less than 94 **AND** no less than a 24 on the writing, a 20 on the speaking, a 20 on the listening, **AND** a 19 on the reading sections
- achieved in **International Baccalaureate (IB)** Grade 4 or above in HL English Language A: Language and Literature / HL English Language A: Literature / HL English Language (B Syllabus) / HL English Language (A1 or A2 Syllabus); Grade 5 or above SL English Language A: Language and Literature / SL English Language A: Literature / SL English Language (B Syllabus) / SL English Language (A1 or A2 Syllabus)
- achieved Grade 4 or above on the **Advanced Placement (AP) English Language/ English Language and Composition/ English Literature and Composition Test**
- achieved section scores of 630 or better in Reading and Writing of the **NEW Scholastic Aptitude Test (SAT)** in the same attempt
- achieved Level C2 in **Cambridge Certificate** of Proficiency in English / Grade A in Cambridge Certificate in Advanced English
- achieved a score of 76 in the **Pearson Test of English Assessment (Academic)**
- achieved Grade B or above in H1 General Paper at the **Singapore GCE A-level**
- achieved Grade A or better in English language at **Malaysia SPM examination**
- achieved Grade A2 or better in **Malaysia UEC-Senior English Language**
- attained Level 4 in each set of credits in **New Zealand NCEA Literacy** (10 credits made up of 5 credits in reading and 5 credits in writing)
- achieved a score of 95% or better in English at **All India Senior School Certificate Examination / Higher School Certificate**
- achieved a final score of 90% or better in English at **Grade 12 Canadian high school curriculum**
- achieved Grade B or better in English Language at **Sri Lanka Ordinary examination**
- achieved a score of 90 or better in English in the **Russian Unified State Exam** (Единый государственный экзамен, ЕГЭ, Yediniy gosudarstvenniy ekzamen, EGE)
- passed **the Academic Speaking and Writing Test conducted by CAES**

➢ *The test is arranged for students who have not obtained the above qualifications.*

➢ *The test is conducted face-to-face once a year on a specific date in August. Students who miss the application deadline or the test date will not have another chance to take the test, as no alternative dates or testing methods will be offered. Students who miss the test must take CAES1001 as a required course.*

- *Students should apply for the test through their faculties.*
- *When applying to take the test, students should provide evidence to their Faculties and the CAES1001 Course Coordinator that they were admitted to HKU using qualifications **other than** those included in the list.*
- *Applicants are required to show **the evidence of those other qualifications** to the CAES assessor on the day of the test.*
- *If any applicants fail to provide any evidence that they were admitted to HKU using qualifications other than those included in the list provided by CAES, the assessor has the right not to allow the applicant to take the test.*

Please note that:
- **Optional students can only take CAES1001 during their first year of studies.**
- **JUPAS students with HKDSE English Language Level 4 or below are not allowed to use any of the above equivalent qualifications to obtain exemption from CAES1001.**
- **Re-admitted students with combined HKDSE English Language results with a level 5 or above, irrespective of the year they took the exam, will be eligible for exemption from CAES1001.**
- **Students admitted through the School Nominations Direct Admission Scheme (SNDAS) are allowed to use results of HKDSE English Language Level 5 or above to get CAES1001 exemption. However, these students are not allowed to use any other equivalent qualifications for this purpose.**
- **Non-JUPAS students are not allowed to use HKDSE English Language results to get exempted from CAES1001.**
- **Students who have taken the Mainland China National College Entrance Examination (NJCEE/Gaokao) must submit additional English proficiency test results (as listed above) to be eligible for exemption from CAES1001.**
- **Students who have not completed their associate degree must submit additional English proficiency test results (as listed above) to be eligible for exemption from CAES1001.**
- **Except for IELTS and TOEFL, all qualifications must be obtained in the same calendar year as the student's university admission.**
- **IELTS and TOEFL scores must be obtained within two years prior to August 1 of the year students are admitted to the University.**

@ To satisfy the Chinese language enhancement requirement, students are required to successfully complete the 6-credit Faculty-specific Chinese language enhancement course, except for:

(a) Putonghua-speaking students who should take CUND9002 (Practical Chinese and Hong Kong Society) or CUND9003 (Cantonese for Non-Cantonese Speaking Students) or CUND9001 (Basic Spoken and Written Cantonese for Mandarin Speakers) (only offered to 2024 cohort and thereafter) or CUND9004 (Practical Applied Chinese Writing & Effective Presentation Skills for Non-local Mandarin Speaking Students) (only offered to 2024 cohort and thereafter). They may take the course in Year 1 or 2 if they so wish; and

(b) students who have not studied Chinese language during their secondary education or who have not attained the requisite level of competence in the Chinese language to take the Chinese language enhancement course should write to the Board of the Faculty to apply to be exempted from the Chinese language requirement, and take a 6-credit course in either Chinese language or Chinese culture offered by the Chinese Language Centre of the School of Chinese from the list below:

Chinese language
- CHIN9501: Chinese as a Foreign Language I
- CHIN9502: Chinese as a Foreign Language II
- CHIN9503: Chinese as a Foreign Language III
- CHIN9504: Chinese as a Foreign Language IV
- CHIN9505: Chinese as a Foreign Language V
- CHIN9506: Chinese as a Foreign Language VI
- CHIN9507: Chinese as a Foreign Language VII
- CHIN9508: Chinese as a foreign language VIII
- CHIN9511: Cantonese as a Foreign Language I
- CHIN9512: Cantonese as a Foreign Language II
- CHIN9513: Cantonese as a Foreign Language III

Chinese culture
- CHIN9521: The Fundamentals of Chinese Characters
- CHIN9522: Exploration of major cultural themes across Chinese history

* Students who have been admitted to Year 1 in 2024-25 (or before) and have achieved any one of the following qualifications are exempted from this requirement, and Core University English is optional. Those who do not take this course should take a 6-credit elective course in lieu:

- Level 5 or above in English Language in the HKDSE
- holder of a Bachelor's degree from an English-medium university
- achieved Grade A or above in English Language **GCE Advanced Level (AL)** / **Advanced Subsidiary Level (ASL)**
- achieved an overall **IELTS** score of no less than 7 **AND** with all sub-scores no less than 6.5 on the Reading, Speaking, Listening and Writing Tests
- achieved an overall **TOEFL Internet-based test** score of no less than 94 **AND** no less than a 24 on the writing, a 20 on the speaking, a 20 on the listening, AND a 19 on the reading sections
- achieved in **International Baccalaureate (IB)** Grade 4 or above in English A1/ English Language A/ English A: Literature/ English A: Language and Literature (HL); or Grade 5 or above in English B/ English Language B (HL); or Grade 5 or above in English A1/ English Language A/ English A: Literature/ English A: Language and Literature (SL)

- achieved Grade 4 or above on the **Advanced Placement (AP) English Language/ English Language and Composition/ English Literature and Composition Test**
- achieved a **NEW Scholastic Aptitude Test (SAT)** score of 35 or above on both the Writing & Language Test and Reading Test (from 2016)
- achieved Grade B or above in H1 General Paper at the **Singapore GCE A-level**
- achieved Grade A or better in English language at **Malaysia SPM examination**
- achieved Grade A2 or better in **Malaysia UEC-Senior English Language**
- attained merit (3 points) or above in each set of credits in **New Zealand NCEA Literacy** (10 credits made up of 5 credits in reading and 5 credits in writing)
- achieved a score of 95% or better in English at **All India Senior School Certificate Examination / Higher School Certificate**
- achieved a final score of 90% or better in English at **Grade 12 Canadian high school curriculum**
- achieved Grade B or better in English Language at **Sri Lanka Ordinary examination**
- achieved a score of 90 or better in English in the **Russian Unified State Exam** (Единый государственный экзамен, ЕГЭ, Yediniy gosudarstvenniy ekzamen, EGE)
- **Academic Speaking and Writing test conducted by CAES** for students who have not taken any of the above tests
  - *When applying to take the Academic Speaking and Writing Test, students should provide evidence to their Faculties and the CAES1000 Course Coordinator that they were admitted to HKU using qualifications **other than** those included in the above list.*
  - *Applicants are required to show **the evidence of those other qualifications** to the assessor on the day of the Academic Speaking and Writing Test.*
  - *If any applicants fail to provide any evidence that they were admitted to HKU using qualifications other than those included in the above list provided by CAES, the CAES assessor has the rights not to allow the applicant to take the test.*
  - *The test takes place annually in August. If a student fails to meet the application deadline, they will not have another chance to take the test, as no alternative test dates will be provided.*
  - *The test is conducted face-to-face. There will be no alternative testing methods available for applicants.*

Please note that:

- **Optional students can only take the course during their first year of studies.**
- **JUPAS students with HKDSE English Language Level 3 or Level 4 are NOT allowed to use any of the above equivalent standards to get exempted from CAES1000.**
- **Non-JUPAS students* are NOT allowed to use HKDSE results to get exempted from CAES1000.**
- **Test results (i.e., the above list* and HKDSE) should be in the same year in which students are admitted to the University. Test results obtained after the admission to the University will NOT be considered.**

*** Non-JUPAS students are allowed to use IELTS/TOEFL which is achieved within 2 years before admission to fulfil the English language requirement for admission.**

- **Re-admitted students with combined HKDSE results with a level 5 or above in the HKDSE English Language examination, irrespective of the year they took the exam, will be eligible for exemption from CAES1000.**
- **Students admitted through the School Nominations Direct Admission Scheme (SNDAS) are allowed to use results of HKDSE English Language Level 5 or above to get CAES1000 exemption. However, these students are not allowed to use any other equivalent qualifications to get exemption.**

^ To satisfy the Chinese language enhancement requirement, students are required to successfully complete the 6-credit Faculty-specific Chinese language enhancement course, except for:

(a) Putonghua-speaking students who should take CUND9002 (Practical Chinese and Hong Kong Society) or CUND9003 (Cantonese for Non-Cantonese Speaking Students) or CUND9001 (Basic Spoken and Written Cantonese for Mandarin Speakers) (only offered to 2024 cohort and thereafter) or CUND9004 (Practical Applied Chinese Writing & Effective Presentation Skills for Non-local Mandarin Speaking Students) (only offered to 2024 cohort and thereafter). They may take the course in Year 1 or 2 if they so wish; and

(b) students who have not studied Chinese language during their secondary education or who have not attained the requisite level of competence in the Chinese language to take the Chinese language enhancement course should write to the Board of the Faculty to apply to be exempted from the Chinese language requirement, and
  (i) take a 6-credit Cantonese or Putonghua language course offered by the School of Chinese especially for international and exchange students; OR
  (ii) take an elective course in lieu.

Candidates who have been admitted to Year 1 in 2020-21 (and thereafter) and have achieved any one of the following qualifications are exempted from taking SCNC1111:

- Level 4 or above in Mathematics Extended Part Module 1 or 2 in the Hong Kong Diploma of Secondary Education (HKDSE)
- Level 5 or above in Mathematics Higher Level in International Baccalaureate (IB)
- Grade B or above in Mathematics and Further Mathematics in General Certificate of Education Advanced Level (GCEAL)
- Mathematics qualification in Gao Kao will be considered on a case-by-case basis

It is optional for them to take the course SCNC1111. Those who are eligible for exemption and do not take this course in their first year of study should take a 6-credit disciplinary elective course in the science major in lieu.

Candidates who have been admitted to Year 1 in 2021-22 (and thereafter) and have achieved any one of the following qualifications are exempted from taking SCNC1112:

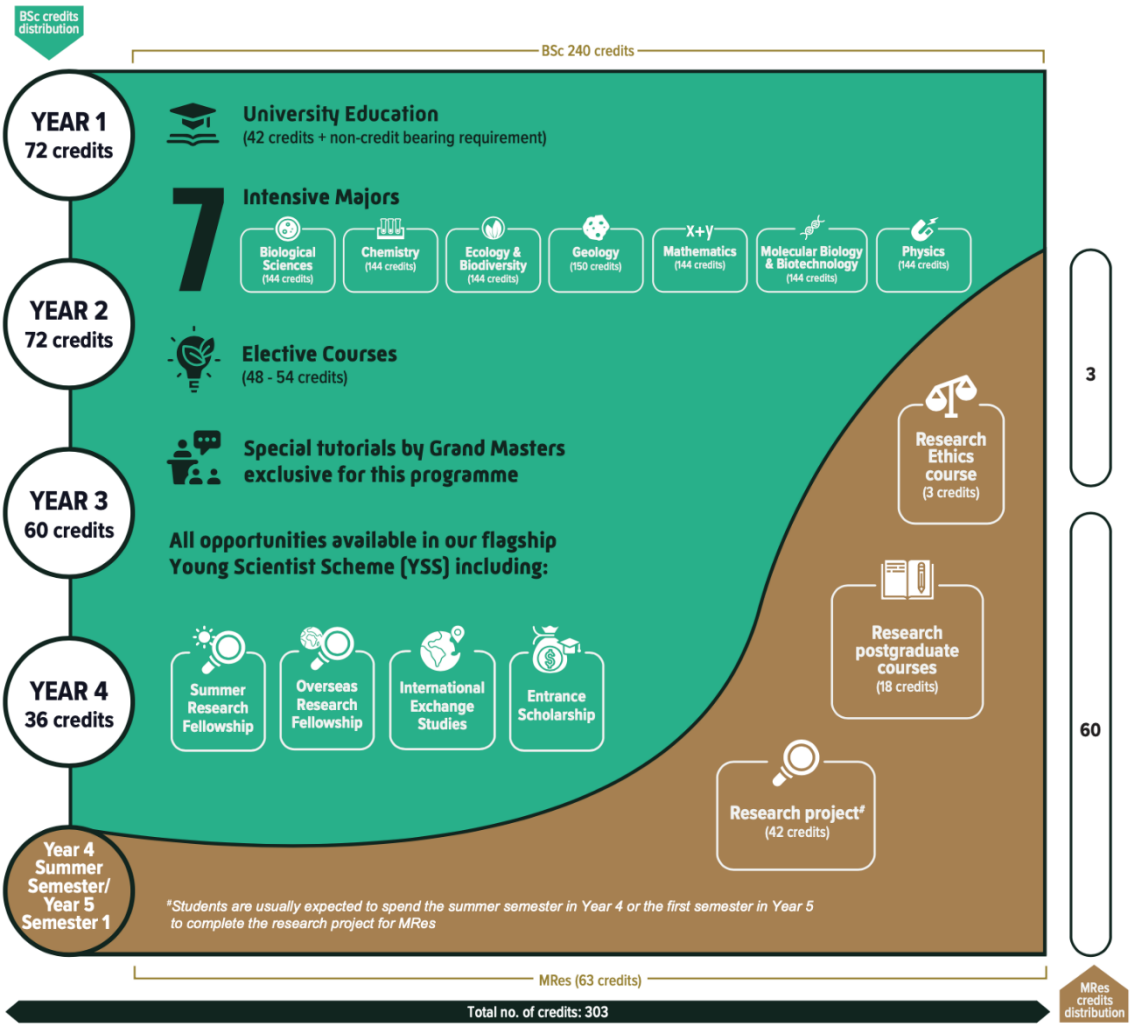
- Level 4 or above in Biology, Chemistry, and Physics in the Hong Kong Diploma of Secondary Education (HKDSE)
- Level 5 or above in Biology, Chemistry, and Physics Higher Level in International Baccalaureate (IB)
- Grade B or above in Biology, Chemistry, and Physics in General Certificate of Education Advanced Level (GCEAL)
- Biology, Chemistry, and Physics qualification in Gao Kao will be considered on a case-by-case basis

It is optional for them to take the course SCNC1112. Those who are eligible for exemption and do not take this course in their first year of study should take a 6-credit disciplinary elective course in the science major in lieu.

(b) The MRes Degree (63 credits):

The MRes of the programme consists of course work and research project. Each student must complete at least 63 credits, including one compulsory course on research ethics, i.e. INRE6033 Research Ethics for Graduate Students (Faculty of Science) (3 credits), 18 credits of Faculty-offered Research Postgraduate courses, and 42 credits of a research project, i.e. INRE7999 Research Project. The project report of the research project will be in the form of a literature review paper and an original research paper in the relevant field. You are expected to take INRE6033 in year 2 and the other postgraduate courses of the MRes component starting from the semester 1 of year 3.

(c) Sample study path for BSc&MRes students



(d) Sample study plans of BSc&MRes Degrees

The typical study plan is illustrated in table (A), with examples of study plans under different scenarios/durations illustrated in table (B) to (E).The sample study plans are for reference only. You can take different number of credits in each semester as long as they can fulfil the minimum total number of credits required upon their graduation.

A. Sample study plan for studying within the normative study period								
	YEAR 1		YEAR 2		YEAR 3		YEAR 4	
	BSc	MRes	BSc	MRes	BSc	MRes	BSc	MRes
Semester 1	36	0	36	3	18	18	18	42 (research project)
Semester 2	36	0	36 (optional exchange study^)	0	30 (optional visiting study^)	0	18	
Summer Semester	0 (optional SRF^)	0	0 (optional ORF^)	0	12 (optional overseas summer study^)	0	0	
Total	72	0	72	3	60	18	36	42
	72		75		78		78	

B. Sample study plan for top performing BSc students who opt for the BSc&MRes programme in Year 3						
	YEAR 1	YEAR 2	YEAR 3		YEAR 4	
	BSc	BSc	BSc	MRes	BSc	MRes
Semester 1	36	36	12	21	18	42 (research project)
Semester 2	36	36 (optional exchange study^)	36 (optional visiting study^)	0	18	
Summer Semester	0	0 (optional SRF/ORF^)	12 (optional overseas summer study^)	0	0	
Total	72	72	60	21	36	42
			81		78	

Note: A small number of top-performing BSc students in the 6901 BSc programme will have the opportunity to join this integrated programme under stringent criteria. Eligible BSc students can apply for opt in at the end of their Year 2 study. Eligibility includes having completed 144 credits, and achieved CGPA of 4.0 or above at the end of Year 2.

C. Sample study plan for students who study beyond the normative study period (completion of study in 4.5 years)										
	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5	
	BSc	MRes	BSc	MRes	BSc	MRes	BSc	MRes	BSc	MRes
Semester 1	36	0	30	3	24	12	12	42 (research project)	30	6
Semester 2	30	0	36 (optional exchange study^)	0	30 (optional visiting study^)	0	12		-	-
Summer Semester	0 (optional SRF^)	0	0	0	0 (optional ORF^)	0	0		-	-
Total	66	0	66	3	54	12	24	42	30	6
	66		69		66		66		36	

D. Sample study plan for students who study beyond the normative study period (completion of study in 5 years)										
	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5	
	BSc	MRes	BSc	MRes	BSc	MRes	BSc	MRes	BSc	MRes
Semester 1	30	0	30	3	24	6	24	6	12	42 (research project)
Semester 2	30	0	30 (optional exchange study^)	0	30 (optional visiting study^)	0	24	6	6	
Summer Semester	0 (optional SRF^)	0	0	0	0 (optional ORF^)	0	0	0	0	
Total	60	0	60	3	54	6	48	12	18	42
	60		63		60		60		60	

E. Sample study plan for students who switch back to BSc programme only in Year 3, and graduate in 3.5 years						
	YEAR 1		YEAR 2		YEAR 3	YEAR 4
	BSc	MRes	BSc	MRes	BSc	BSc
Semester 1	36	0	36	3	36	30
Semester 2	36	0	36 (optional exchange study^)	0	30 (optional visiting study^)	-
Summer Semester	0 (optional SRF^)	0	0 (optional ORF^)	0	0	-
Total	72	0	72	3	66	30

^Summer Research Fellowship (SRF), Overseas Research Fellowship (ORF), exchange study and visiting study are optional overseas opportunities that you can participate. The semester and the number of credits shown are for reference only.

(e) Grand Masters and Masters

Students will have the chance to learn from “Grand Masters” and “Masters” of the Faculty of Science. List of Grand Masters and Masters can be found at: https://www.scifac.hku.hk/prospective/ug/6688-science-master-class/experts.