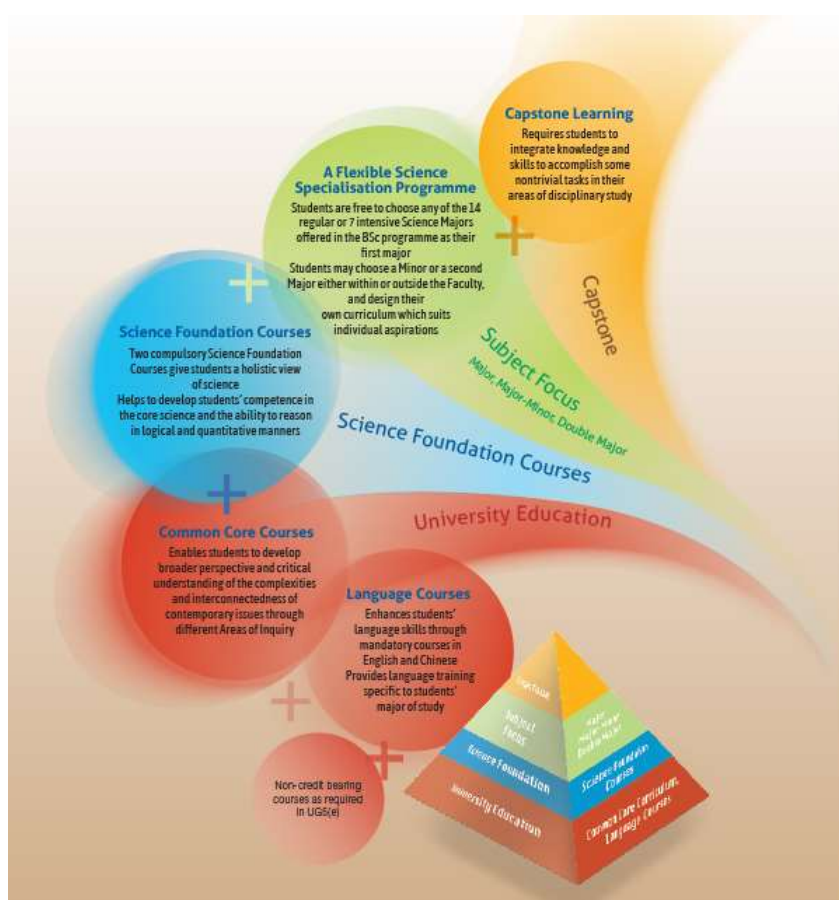# A BSc Degree Curriculum

The Faculty of Science offers a number of Science majors leading to the award of a BSc degree.

All students admitted to the first year of the 6901 BSc programme in the academic year of 2017-18 and thereafter are required to complete at least one Science major out of the 14 regular or 7 intensive Science majors as your primary major for the award of the BSc degree. In addition to the primary Science major, students may take a second major or a minor in a Science or non-Science discipline. Students should note that some non-Science majors and minors may require students to have achieved a minimum academic result before they are allowed to enrol in them.

(a) Curriculum structure of the BSc Degree (240 credits)
For 2017-18 intake and thereafter:

(b) A typical BSc curriculum:
To complete the BSc degree curriculum, you have to pass at least 240 credits, equivalent to 40 6-credit courses, normally spread over 4-years of full-time study.   A BSc curriculum typically comprises:
  (i) UG5:
   -   2 English courses and 1 Chinese course for university language requirements (18 credits)
   -   6 common core courses in 4 Areas of Inquiry (36 credits)
   -   any other non-credit bearing courses as required (0 credit)
  (ii) For regular Science major:
   -   16 courses for the regular Science major including 2 Science Foundation courses,
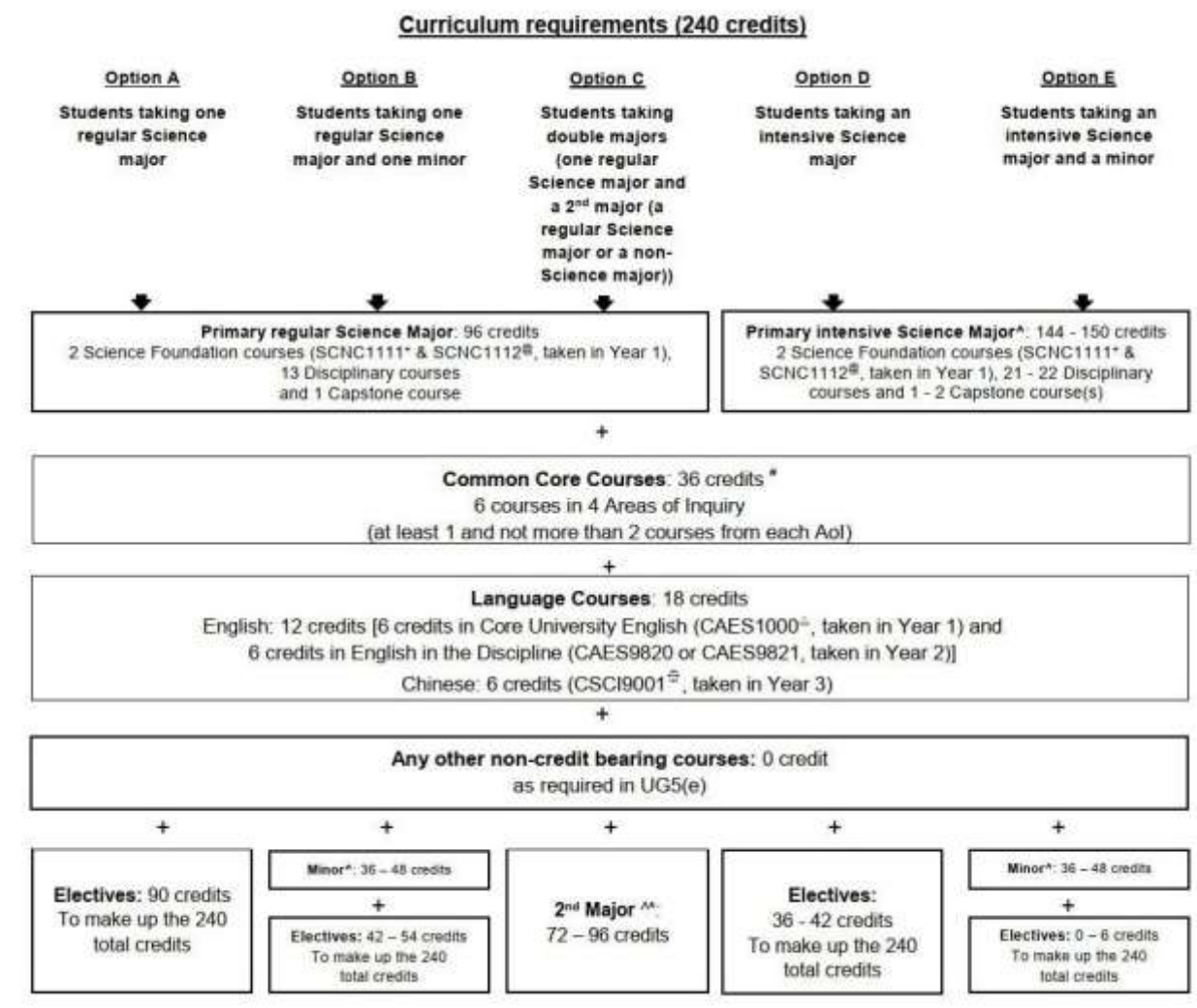
Disciplinary courses and capstone course (96 credits)
- A choice of 15 courses as elective courses, or to fulfil the requirements of a minor or a second major (90 credits)

OR

For intensive Science major (applicable to 2015-16 intake and thereafter):
- 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 6 - 7 courses as elective courses, or to fulfil the requirements of a minor (36 - 42 credits)

Curriculum requirements (240 credits)

Option A	Option B	Option C	Option D	Option E
Students taking one regular Science major	Students taking one regular Science major and one minor	Students taking double majors (one regular Science major and a 2nd major (a regular Science major or a non-Science major))	Students taking an intensive Science major	Students taking an intensive Science major and a minor

Primary regular Science Major: 96 credits
2 Science Foundation courses (SCNC1111+ & SCNC1112@, taken in Year 1),
13 Disciplinary courses and 1 Capstone course

Primary intensive Science Major^: 144 - 150 credits
2 Science Foundation courses (SCNC1111+ & SCNC1112@, taken in Year 1), 21 - 22 Disciplinary courses and 1 - 2 Capstone course(s)

+

Common Core Courses: 36 credits *
6 courses in 4 Areas of Inquiry
(at least 1 and not more than 2 courses from each AoI)

+

Language Courses: 18 credits
English: 12 credits [6 credits in Core University English (CAES1000=, taken in Year 1) and 6 credits in English in the Discipline (CAES9820 or CAES9821, taken in Year 2)]
Chinese: 6 credits (CSCI9001=, taken in Year 3)

+

Any other non-credit bearing courses: 0 credit
as required in UG5(e)

+	+	+	+	+
Electives: 90 credits To make up the 240 total credits	Minor^: 36 – 48 credits + Electives: 42 – 54 credits To make up the 240 total credits	**2nd Major ^^:** 72 – 96 credits	**Electives:** 36 - 42 credits To make up the 240 total credits	Minor^: 36 – 48 credits + Electives: 0 – 6 credits To make up the 240 total credits

Notes:

+ 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 do not take this course should take a 6-credit disciplinary elective course of 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. <u>Those who do not take this course should take a 6-credit disciplinary elective course of the science major in lieu.</u>

Student must select at least one and not more than two courses from each Area of Inquiry with not more than 24 credits of courses being selected within one academic year except where candidates are required to make up for failed credits. Common Core courses should be completed normally within the first three years of study.

△ Students who have been admitted to Year 1 in 2018-19 (and thereafter) 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 <u>both</u> the Writing & Language Test <u>and</u> 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.*

Please note that:
- **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.

⊕ 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). 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.

^ Credit requirement for different majors or minors may vary.

* Students having a second major in Science are allowed to double-count the two Science Foundation Courses. The 12 credits can be made up by selecting any courses.

(c)   Example of BSc programme structure by year of study:

Yr 4	Cap-stone	Major	Major	Major	Major	Major	Intensive Major	Intensive Major	(Intensive Major)	
Yr 3	CC	CC	Chi	Major	Major	Major	Intensive Major	Intensive Major	Intensive Major	
Yr 2	CC	CC	Eng 2	Major	Major	Major	Intensive Major	Intensive Major		
Yr 1	CC	CC	Eng 1	SF1	SF2	Major	Major	Intensive Major		

The non-credit bearing courses as required by UG5(e) should be completed within four years of study.

CC – Common Core Courses   Eng 1 – Core University English   Chi – Chinese
SF – Science Foundation Courses   Eng 2 – English in the Discipline

Note: Different distributions of courses over the years are possible. Blank boxes can be used for elective courses, or courses leading to a minor or a second major.

(d)   Common Core Curriculum

The Common Core Curriculum is designed to provide key common learning experience for all HKU students and to broaden their horizons beyond their chosen disciplinary fields of study. It focuses on issues that have been, and continue to be, of deeply profound significance to mankind, the core intellectual skills that all HKU undergraduates should acquire and the core values that they should uphold. The Common Core Curriculum is divided into four Areas of Inquiry (AoIs): (1) Science, Technology and Big Data; (2) Arts and Humanities; (3) Global Issues; (4) China: Culture, State and Society. Students have to pass 36 credits of courses in the Common Core Curriculum, comprising at least one and not more than two courses from each Area of Inquiry with not more than 24 credits of courses being selected within one academic year except where candidates are required to make up for failed credits. Common Core courses should be completed normally within the first three years of the BSc study and cannot be extra taken as free electives.

To ensure that you are aware of any new developments related to the Common Core Curriculum in 2023-24, including the implementation of new 3-credit microcredential courses (which will be counted as 0.5 course), please visit https://commoncore.hku.hk/ccmc2023-24/ for further information.

(e)   Capstone Requirement

Capstone experience is an integral part of the major programme which focuses on integration and application of knowledge and skills gained in the early years of study. Students must complete this for fulfilment of the graduation requirements. The capstone course carries a minimum of 6 credits and is normally taken in the senior years (year 3 or 4) of study.   The capstone courses in each Science major may be different but a range of courses (e.g. research project, field work, internship) is offered to suit individual student's needs and interests. Details of capstone courses and the credit requirement for each major can be found in the syllabuses.

(f)   UG5(e) Requirement

With a view to fostering whole-person development of graduates, the Senate has approved an amendment to Regulation UG5 "Requirements for graduation" of the Regulations for First Degree Curricula by the inclusion of the Regulation **UG5(e) successful completion of any other**

non-credit bearing courses as required with effect from the academic year 2022-23.

The concerned non-credit bearing course required for completion under Regulation UG5(e) is "UG5E1001 Introduction to the Constitution, the Basic Law and the National Security Law". This is an online course which will adopt a self-directed learning approach. You will have the flexibility to take this course in any semester throughout their period of study and there is **no need to enrol** in this course during the upcoming course selection and /or add/drop period. Please click "UG5E1001 Student Guide" to access the student guide for the detailed steps on login. You can also access the link at CEDARS-General Education for the information on this course. For course-related enquiries, please email UG5E1001@hku.hk.

Please note that for undergraduates who will graduate in 2022-23 and thereafter, it is a graduation requirement to complete and pass the above non-credit bearing course under UG5(e) plus other requirements under UG5(a) - (d) as well as other curriculum requirements.