

HKU BUSINESS SCHOOL 港大經管學院

Bachelor of Science in Quantitative Finance 理學士(計量金融)

Year 3 (60 credits) Year 4 (60 credits) CBBA9003 Practical Chinese for BEcon/ FINA4341 Quantitative Risk BEcon&Fin/BFin(AMPB)/BSc(QFin) Students Management (Capstone) OR FINA4354 Financial Engineering **Common Core Course 6** (Capstone) FINA3350 Mathematical Finance **Free Elective 8** (Sem 2) FINA3351 Spreadsheet Financial Free Elective 9 Modeling (Sem 2) Free Elective 2 Free Elective 10 Free Elective 3 Free Elective 11 Free Elective 4 Free Elective 12 Free Elective 5 Free Elective 13 **QFin Disciplinary Elective 1** (Year 2 or 3 or 4) **QFin Disciplinary Elective 2** (Year 2 or 3 or 4) Free Elective 6 Free Elective 14

Year 1 (57 credits) Year 2 (63 credits) **CAES1001** Academic Communication CAES9920 Academic Communication for Business and Economics in English **Common Core Course 1 Common Core Course 4 Common Core Course 2 Common Core Course 5** AILTxxxx Artificial Intelligence Literacy II **Common Core Course 3** OR other microcredential Al literacy course SDST2601 Probability and Statistics I (Sem 1) **ACCT1101** Introduction to Financial FINA2320 Investments and Portfolio Accounting (Sem 1) Analysis (Sem 1) **ECON1210** Introductory FINA2322 Derivatives (Sem 1) Microeconomics (Sem 1) **MATH1013** University Mathematics II **COMP1117** Computer Programming (Sem 1) (Sem 2) **ECON1220** Introductory **ECON2280** Introductory Econometrics **Macroeconomics** (Sem 2) (Sem 2) FINA1310 Corporate Finance (Sem 2) **MATH2014** Multivariable Calculus and Linear Algebra (Sem 2) Free Elective 1 Free Elective 7 Free Elective 15

Non-credit Bearing **Course under UG5**

Language Courses (2 courses; 12 credits) **Common Core Courses** (6 courses; 36 credits)

Major in Quantitative Finance (16 courses; 96 credits)

Free Electives (15 courses; 90 credits) Bachelor of Science in Quantitative Finance [BSc(QFin)] Curriculum Requirements (Total: 240 credits) (Please refer to the BSc(QFin) Degree Syllabus of the 2025-2026 intake for details.)

1. UG5 Requirements (12 courses; 54 credits)

- (a) Language Courses (2 courses; 12 credits): (i) CAES9920 Academic Communication for Business and Economics + (ii) CBBA9003 Practical Chinese for BEcon/BEcon&Fin/BFin(AMPB)/BSc(QFin) Students
 - Non-local Putonghua/Mandarin-speaking candidates should take a 6-credit Chinese Language Enhancement Programme course for non-local Putonghua/Mandarin-speaking students (i.e. CUNDxxxx course) in lieu of CBBA9003 Practical Chinese for BEcon/BEcon&Fin/BFin(AMPB)/BSc(QFin) Students.
 - Students who did not study Chinese language during their secondary education and have not reached the required proficiency level to take CBBA9003 should write to the Board of the Faculty to apply for exemption from the Chinese language enhancement requirement and take a course in either Chinese language ("CHIN9501 Chinese as a Foreign Language I") or Chinese culture ("CHIN9521 The Fundamentals of Chinese Characters" or "CHIN9522 Exploration of Major Cultural Themes across Chinese History") offered by the Chinese Language Centre of the School of Chinese in lieu. To apply for exemption from the Chinese language enhancement requirement, students should complete the application form at the School website (https://ug.hkubs.hku.hk/support-and-development/useful-info/downloadable-forms) and return it to the Faculty Office by the deadline.
- (b) Common Core Courses (6 courses; 36 credits)
 - Students shall complete a total of 36 credits in the Common Core Curriculum, comprising at least 6 credits and not more than 12 credits of from each Area of Inquiry (AoI) with not more than 24 credits being selected within one academic year except where candidates are required to make up for failed credits. Please refer to the Common Core website (https://commoncore.hku.hk/) for details.
- (c) Artificial Intelligence Literacy Courses (2 courses; 6 credits): (i) AILT1001 Artificial Intelligence Literacy I + (ii) AILTxxxx Artificial Intelligence Literacy II or other microcredential AI Literacy course
 - Students are highly encouraged to take *AlLT1001* either in Semester 1 or 2 of Year 1 as it is a prerequisite for taking the second *Artificial Intelligence* Literacy course required for graduation. Please refer to the *AlLT1001* website (https://ailt.cds.hku.hk/) for more information.
- (d) Non-credit Bearing Courses under UG5 (2 courses; 0 credits)
 - CAES1001 Academic Communication in English (ACE) is a compulsory course for all undergraduate students. Students must enrol in CAES1001 in either Semester 1 or 2 of Year 1 unless exemption has been granted.
 - Students who have achieved Level 5 or above in English Language in HKDSE, or equivalent, in the year of admission (i.e. 2025, unless otherwise specified below; test result obtained after admission to the University will not be considered) are exempted from the ACE requirement. To apply for exemption from the ACE requirement, students should complete the online application form at the School website (https://ug.hkubs.hku.hk/support-and-development/useful-info/downloadable-forms) by the deadline.
 - UGRE1001 Introduction to the Constitution, the Basic Law and the National Security Law is an online course which adopts a self-directed learning approach. Students have the flexibility to take the course in any semester throughout their period of study. Enrolment on the course is automatic. Please refer to the CEDARS-GE website (https://www.cedars.hku.hk/ge/ugre1001.html) for more information.

2. Compulsory Major in Quantitative Finance (QFin) (16 courses; 96 credits)

- (a) Faculty Core Courses (FCC) (4 courses; 24 credits): (i) ACCT1101 Introduction to Financial Accounting + (ii) ECON1210 Introductory Microeconomics + (iii) FINA1310 Corporate Finance + (iv) Statistics Course (for BSc(QFin), this is SDST2601 Probability and Statistics I)
 - FCC can only be double-counted across major-major, but not major-minor combination. Should the FCC constitute the requirements of a second major or a minor offered by HKU Business School, students will be required to take an equivalent number of credits of free electives (for major-major combination) or advanced level minor disciplinary electives (for major-minor combination) in lieu of the overlapped FCC.
 - Double-counting is NOT allowed for courses other than the FCC. Students will be required to take an equivalent number of credits of advanced level disciplinary electives under the major/minor concerned in lieu of the overlapped courses.
 - Please refer to the induction powerpoint for further explanation on double-counting.
- (b) <u>Disciplinary Core Courses (9 courses; 54 credits)</u>: (i) COMP1117 Computer Programming + (ii) ECON1220 Introductory Macroeconomics + (iii) ECON2280 Introductory Econometrics + (iv) FINA3320 Investments and Portfolio Analysis + (v) FINA2322 Derivatives + (vi) FINA3350 Mathematical Finance + (vii) FINA3351 Spreadsheet Financial Modelling + (viii) MATH1013 University Mathematics II + (ix) MATH2014 Multivariable Calculus and Linear Algebra
 - Students who would like to build a strong mathematics foundation may apply to the School Office for taking MATH2211 Multivariable Calculus and MATH2101 Linear Algebra I in lieu of MATH2014 Multivariable Calculus and Linear Algebra. To match the required credits, MATH2211 shall substitute MATH2014 while MATH2101 shall be counted as a free elective to satisfy the BSc(QFin) curriculum requirements.
 - Students who would like to have more in depth knowledge in financial mathematics may apply to the School Office for taking MATH3906 Financial Calculus in lieu of FINA3350 Mathematical Finance to satisfy the BSc(QFin) curriculum requirements. Please refer to the induction powerpoint for further details.
- (c) <u>QFin Disciplinary Electives (2 courses; 12 credits)</u>: Please refer to <u>Attachment I</u> for the list of QFin disciplinary electives.
- (d) Capstone Course (1 course; 6 credits): FINA4341 Quantitative Risk Management or FINA4354 Financial Engineering

3. Free Electives (15 courses; 90 credits)

Free electives are courses in any disciplines except Common Core and Chinese Language Enhancement courses. These include (1) courses used to fulfil an optional second major and/or minor(s) requirements or (2) QFin disciplinary electives that are not counted towards fulfilling the requirements for the 96-credit Major in Quantitative Finance.

[Note: Second major and minor(s) are optional and must be declared via SIS. The earliest time students can declare their second major/minor(s) is the preliminary course enrolment period in Year 2. The latest time students can declare or change their second major/minor(s) is the end of the add/drop period in Semester 1 of Year 4.]

The BSc(QFin) degree regulations and syllabus, course descriptions, and course outlines are downloadable from the School website (https://ug.hkubs.hku.hk). For enquiries regarding the BSc(QFin) curriculum, please contact the Faculty Office by email to fbe.undergrad@hku.hk. It is important that you state your full name, university number, curriculum, and year of study in the email.

QFin Disciplinary Electives

Course Code	Course Title	Suggested Year of Study	Credits
COMP2119	Introduction to Data Structures and Algorithms	2 or 3 or 4	6
ECON3225	Big Data Economics	3 or 4	6
ECON3283 <i>or</i> SDST4601	Economic Forecasting or Time-series Analysis	3 or 4	6
FINA2390	Financial Programming and Databases	2 or 3 or 4	6
FINA3322 or SDST4607	Credit Risk or Credit Risk Analysis	3 or 4	6
FINA3323	Fixed Income Securities	2 or 3 or 4	6
FINA3325	Alternative Investments	3 or 4	6
FINA3353	Regulatory, Operational and Valuation Issues in Finance Institutions	3 or 4	6
FINA4341	Quantitative Risk Management (if not taken as capstone course)	4	6
FINA2350	Text Analytics and Natural Language Processing in Finance and Fintech	3 or 4	6
FINA4354	Financial Engineering (if not taken as capstone course)	4	6
FINA4359	Data Analytics, Quantitative Finance, and Blockchain Finance	3 or 4	6
IIMT3601	Database Management	2 or 3 or 4	6
MATH3405	Differential Equations	3 or 4	6
MATH3603 <i>or</i> SDST3603	Probability Theory or Stochastic Processes	3 or 4	6
SDST2602	Probability and Statistics II	2 or 3 or 4	6

(*Note: Many courses listed above are usually offered once a year in Semester 1 or 2 or may not be offered every year. Please take this into account in your course planning and check with relevant faculties in advance.)

Pre-requisites/Co-requisites

Course Category	Course	Year	Pre-requisite(s)	Co-requisite(s)
,	FINA1310	1	ACCT1101	
	SDST2601	2	/	MATH2014 or (MATH2101 and MATH2211)
QFin Disciplinary Core Courses	MATH1013	1	Level 2 or above in Module 1, or Module 2 of HKDSE Mathematics or equivalent or (MATH1009 or MATH1011)	
	MATH2014	1	MATH1013 or (MATH1851 and MATH1853)	
	ECON2280	2	ECON1210 and (ECON1280 or IIMT1640 or MATH1853 or SDST1601 or SDST1602 or SDST1603 or SDST2601 or SDST2901)	
	FINA2320	2	ECON1210 and FINA1310	ECON1280 or IIMT1640 or SDST1600 or SDST1601 or SDST1602 or SDST1603 or SDST2601 or SDST2901 or MATH1853
	FINA2322	2	ECON1210 and FINA1310	
	FINA3350	3	FINA2322	
	FINA3351	3	FINA2322 and (FINA2320 or SDST3609)	
Electives/ Capstone Course	COMP2119	2 or 3 or 4	COMP2113 or COMP2123 or ENGG1340	
	ECON3225	3 or 4	ECON2280 or ECON3284	
	ECON3283	3 or 4	ECON2280	
	SDST4601	3 or 4	SDST3600	
	FINA2390	2 or 3 or 4	ECON1280 or IIMT1640 or SDST1602 or SDST1603 or SDST2601	
	FINA3322	3 or 4	FINA2322	
	SDST4607	3 or 4	SDST3618 or SDST3905 or SDST3910 or (FINA2322 and any University level 3 course)	
	FINA3323	2 or 3 or 4	ECON1210 and (FINA2322 or SDST3905) and (FINA2320 or SDST3609)	
	FINA3325	3 or 4	FINA2322 and (FINA2320 or SDST3609)	
	FINA3353	3 or 4	FINA2320	
	FINA4341	4	FINA3350	
	FINA4354	4	FINA3350	
	FINA4359	3 or 4	ECON1210 and FINA2320 and (IIMT2602 or COMP1117 or ENGG1111 or equivalent)	
	IIMT3601	2 or 3 or 4		
	MATH3405	3 or 4	(MATH2101 and MATH2211) or MATH2014 or (MATH1821 and MATH2822)	
	MATH3603	3 or 4	(MATH2101 and MATH2211) or MATH2014 or (MATH1821 and MATH2822)	
	SDST3603	3 or 4	SDST2601	
	SDST2602	2 or 3 or 4	SDST2601	