SYLLABUSES FOR THE DEGREE OF
BACHELOR OF SCIENCE IN QUANTITATIVE FINANCE
[BSC(QFIN)]

These syllabuses apply to candidates admitted to the first year of study of the 4-year curriculum in the academic year 2025-26 and thereafter.

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1. Candidates must enroll and attempt examination in not fewer than 240 credits of courses in accordance with the regulations and the syllabuses. In addition, the 240 credits of courses should be completed in the following manner:

   UG 5 requirements [54 credits]
   - Languages*   12 credits
   - HKU Common Core Curriculum*   36 credits
   - Artificial Intelligence Literacy*   6 credits
   - Non-credit bearing courses as required by the University*   0 credits

   Major in Quantitative Finance [96 credits]
   - First year Core courses   36 credits
   - Second year Core courses   36 credits
   - Third year Core courses   12 credits
   - Fourth year Core courses   12 credits

   Free Electives [90 credits]   90 credits

   Total credits for degree programme   240 credits

2. To fulfill the graduation requirement of this degree as specified in the Board of the Faculty of Business and Economics in accordance with UG 5 of the Regulations for First Degree Curricula, candidates must satisfactorily complete the courses identified by an asterisk (*). Those courses include the following areas of study: English language enhancement (6 credits), Chinese language enhancement (6 credits), Common Core Curriculum (36 credits), non-credit bearing courses as required by the University, and a capstone experience.

3. Candidates must complete a total of 36 credits in the Common Core Curriculum, comprising at least 6 credits and not more than 12 credits from each Area of Inquiry with not more than 24 credits being selected within one academic year except where candidates are required to make up for failed credits.

4. The following courses are designated as Faculty Core courses: ACCT1101, ECON1210, FINA1310 and a statistics course, as prescribed in the syllabus. Candidates are not required to re-take Faculty Core courses where any of these courses form part of the requirements of a second major offered by the Faculty of Business of Economics, however, candidates must complete an equivalent number of credits of free electives in lieu of the Faculty Core courses.

5. The courses listed in the syllabus will not necessarily be offered every year.

6. For courses offered by the Faculty of Business and Economics, the final examination is normally 2 hours in length. Final grading is normally determined by performance in the final examination (30-50%) and coursework assessment (50-70%), except for courses with a final project/final paper which are assessed by 100% coursework.

7. Candidates may select up to four courses offered under the syllabus for the Master of Economics (MEcon) degree as third or fourth year free electives, subject to availability and the approval of the BSc(QFin) Programme Director and the MEcon Programme Director. Each of these MEcon courses carries 6 credits, unless otherwise specified. Candidates should satisfy the requirements prescribed by the Faculty of Business and Economics.

8. Candidates should take note of any impermissible combinations of majors/minors listed in the document "Major/Minor Programmes offered by FBE" for the year concerned.

9. Candidates are not permitted to enroll in courses where significant portions of the course contents overlap with each other, or where the courses are mutually exclusive.

1. UG 5 requirements [54 credits]

(a) Languages* [12 credits]

Course code	Course title	Year of study	Credits
CAES1001#	Academic communication in English*	1	0
CAES9920	Academic communication for business and economics*	2	6
CBBA9003^ *or*	Practical Chinese for BEcon/BEcon&Fin/ BFin(AMPB)/BSc(QFin) students* *or*	3	
CUNDxxxx^	Chinese Language Enhancement Programme course for non-local Putonghua/Mandarin-speaking students	1 or 2 or 3	6

\# Candidates who have achieved Level 5 or above in English Language in the Hong Kong Diploma of Secondary Education Examination, or equivalent, are exempted from this requirement.

^ Candidates are required to successfully complete the 6-credit "CBBA9003 Practical Chinese for BEcon/BEcon&Fin/BFin(AMPB)/BSc(QFin) students", except for
   (a) non-local Putonghua/Mandarin-speaking candidates who should take a 6-credit Chinese Language Enhancement Programme course for non-local Putonghua/Mandarin-speaking students (i.e. CUNDxxxx course); and
   (b) candidates who did not study Chinese language during their secondary education and have not reached the required proficiency level for 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 "CHIN9511 Cantonese 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.

(b) HKU Common Core Curriculum* [36 credits]

Course code	Course title	Year of study	Credits
CCXXxxxx	3 CC courses in any three Areas of Inquiry*	1	18
CCXXxxxx	2 CC courses in any two Areas of Inquiry*	2	12
CCXXxxxx	1 CC course in any Area of Inquiry*	3	6

(c) Artificial Intelligence (AI) Literacy* [6 credits]

Course code	Course title	Year of study	Credits
AILT1001	Artificial intelligence literacy I*	1	3
AILTxxxx	Artificial intelligence literacy II *or* other microcredential AI literacy course*	2	3

(d) Non-credit bearing courses as required by the University* [0 credits]

Course code	Course title	Year of study	Credits
XXXXxxxx	Non-credit bearing courses as required by the University*	1 or 2 or 3 or 4	0

2. Major in Quantitative Finance [96 credits]

Course code	Course title	Year of study	Credits
Faculty Core Courses – complete all of the following courses:			
ACCT1101	Introduction to financial accounting	1	6
ECON1210	Introductory microeconomics	1	6
FINA1310	Corporate finance	1	6
SDST2601	Probability and statistics I	2	6

Course code	Course title	Year of study	Credits
Disciplinary Core Courses – complete all of the following courses:			
ECON1220	Introductory macroeconomics	1	6
MATH1013	University mathematics II	1	6
MATH2014	Multivariable calculus and linear algebra	1	6
COMP1117	Computer programming	2	6
ECON2280	Introductory econometrics	2	6
FINA2320	Investments and portfolio analysis	2	6
FINA2322	Derivatives	2	6
FINA3350	Mathematical finance	3	6
FINA3351	Spreadsheet financial modeling	3	6
Disciplinary Electives – complete three of the following courses, at least one of them must be a capstone course:			
COMP2119	Introduction to data structures and algorithms	2 or 3 or 4	18
FINA2390	Financial programming and databases	2 or 3 or 4	
FINA3322 *or*	Credit risk *or*	3 or 4	
SDST4607	Credit risk analysis		
FINA3323	Fixed income securities	2 or 3 or 4	
FINA3325	Alternative investments	3 or 4	
FINA3353	Regulatory, operational and valuation issues in finance institutions	3 or 4	
ECON3225	Big data economics	3 or 4	
ECON3283 *or*	Economic forecasting *or*	3 or 4	
SDST4601	Time-series analysis		
MATH3405	Differential equations	3 or 4	
MATH3603 *or*	Probability theory *or*	3 or 4	
SDST3603	Stochastic processes		
FINA4341	Quantitative risk management* (Capstone course)	4	
FINA2350	Text analytics and natural language processing in finance and fintech	3 or 4	
FINA4359	Data analytics, quantitative finance, and blockchain finance	3 or 4	
FINA4354	Financial engineering* (Capstone course)	4	
IIMT3601	Database management	2 or 3 or 4	
SDST2602	Probability and statistics II	2 or 3 or 4	

3.   **Free Electives [90 credits]** – any courses except Common Core courses

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REFERENCE TABLE

Year	Lang.	Common Core	AI Literacy	Major (Core)	Free Electives	Total
I	0 credits	18 credits	3 credits	36 credits	-	57 credits
II	6 credits	12 credits	3 credits	36 credits	6 credits	63 credits
III	6 credits	6 credits	-	12 credits	36 credits	60 credits
IV	-	-	-	12 credits	48 credits	60 credits
Total	12 credits	36 credits	6 credits	96 credits	90 credits	240 credits