

SYLLABUS FOR THE DEGREE OF BACHELOR OF SCIENCE IN QUANTITATIVE FINANCE

This syllabus applies to candidates admitted to the first year of study of the 4-year curriculum in the academic year 2016-17 and thereafter.

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*	18 credits
HKU Common Core Curriculum*	36 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
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 the First Degree Curricula, candidates must satisfactorily complete the credits of courses identified by an asterisk (*). Those courses include the following areas of study: English language enhancement (12 credits), Chinese language enhancement (6 credits) and Common Core courses (36 credits), and successful completion of a capstone experience.
 3. The Common Core courses are categorized under four Areas of Inquiry (AoI): Scientific and Technological Literacy, Humanities, Global Issues, and China: Culture, State and Society. Candidates must complete a total of 36 credits, 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.
 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 School of Economics and Finance, the final examination is normally 2 hours in length. Final grading will normally be determined by the final examination (30-60%) and coursework (40-70%).
 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 Undergraduate 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 School of Economics and Finance.
 8. Candidates should take note of any impermissible combinations of majors/minors listed in the document "Major/Minor Programs 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.
 10. Each candidate shall be required to take an English Proficiency Test at two different junctures: firstly in Year 1 and secondly in the final or penultimate year of study.
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1. UG 5 requirements [54 credits]

(a) Languages* [18 credits]

<i>Course code</i>	<i>Course title</i>	<i>Year of Study</i>	<i>Credits</i>
CAES1000 [#]	Core University English *	1	6
CAES9920	Academic Communication for Business and Economics*	2	6
CBBA9003 [^]	Practical Chinese for BEcon/BEcon&Fin/BSc(QFin) students* or	3	6
CUND9002 [^]	Practical Chinese and Hong Kong Society or	1 or 2 or 3	
CUND9003 [^]	Cantonese for Non-Cantonese Speaking Students	1 or 2 or 3	

[#] Candidates who have achieved Level 5** in English Language in the HKDSE or equivalent are exempted but must take a free elective in lieu of the course.

[^] Putonghua-speaking students must take CUND9002 or CUND9003. Students who have not studied the Chinese language during their secondary education or who have not attained the requisite level of competence in the Chinese language to take CBBA9003 can apply to the Faculty to take credit-bearing Cantonese or Putonghua language courses offered by the School of Chinese (especially for international and exchange students) in lieu of CBBA9003. If a credit-bearing Cantonese or Putonghua language course offered by the School of Chinese is taken in lieu of CBBA9003, it may be taken in any year of study.

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

<i>Course code</i>	<i>Course title</i>	<i>Year of Study</i>	<i>Credits</i>
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

2. Major in Quantitative Finance [96 credits]

<i>Course code</i>	<i>Course title</i>	<i>Year of Study</i>	<i>Credits</i>
<i>Introductory Level Courses</i>			
ACCT1101	Introduction to financial accounting	1	6
ECON1210	Introductory microeconomics	1	6
ECON1220	Introductory macroeconomics	1	6
FINA1310	Corporate finance	1	6
MATH1013	University mathematics II	1	6
MATH2014	Multivariable calculus and linear algebra	1	6
COMP1117	Computer programming	2	6
<i>Advanced Level Courses</i>			
ECON2280	Introductory econometrics	2	6
FINA2320	Investments and portfolio analysis	2	6
FINA2322	Derivatives	2	6
FINA3323	Fixed income securities	2	6
STAT2601	Probability and statistics I	2	6
FINA3350	Mathematical finance	3	6
FINA3351	Spreadsheet financial modeling	3	6

<i>Complete two courses from the following nine, at least one of them must be a capstone course:</i>			
FINA3322	Credit risk	3 or 4	12
FINA3353	Regulatory and operational issues in finance	3 or 4	
ECON3283 <i>or</i> STAT4601	Economic forecasting <i>or</i> Time series analysis	3 or 4	
MATH3405	Differential equations	3 or 4	
MATH3603 <i>or</i> STAT3603	Probability theory <i>or</i> Probability modelling	3 or 4	
FINA4341	Quantitative risk management* (capstone course)	4	
FINA4354	Financial engineering* (capstone course)	4	

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

REFERENCE TABLE

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