## 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 2015-16 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* |  |
| HKU Common Core Curriculum* | 18 credits |
| Major in Quantitative Finance [96 credits] | 36 credits |
| - First year Core courses |  |
| - Second year Core courses | 36 credits |
| - Third year Core courses | 36 credits |
| - Fourth year Core courses | 12 credits |
| Free Electives | 12 credits |
| Total credits for degree programme | 90 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 retake 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 Director of the School of Economics and Finance. Each of these MEcon courses carries 6 credits, unless otherwise specified.
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.

## 1. UG 5 requirements [ 54 credits]

(a) Languages* [18 credits]

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

| 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 |

2. Major in Quantitative Finance [ 96 credits]

| Course code | Course title | Year of <br> Study | Credits |
| :--- | :--- | :---: | :---: |
| Introductory Level Courses |  |  |  |
| 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 |
| Advanced Level Courses |  |  |  |
| ECON2280 | Introductory econometrics |  |  |
| 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 | 2 | 6 |
| FINA3351 | Spreadsheet financial modeling | 3 | 6 |


| Complete two courses from the following four, at least one of them must be a capstone <br> course: |  |  |  |
| :--- | :--- | :---: | :---: |
| FINA3322 | Credit risk | 3 or 4 |  |
| FINA3353 | Regulatory and operational issues in <br> finance | 3 or 4 | 12 |
| FINA4341 | Quantitative risk management* (capstone <br> 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 |

