香港科技大學
THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY
數學系
DEPARTMENT OF MATHEMATICS

**UCAP program**

Effective from August 2020, our minor program has been included in UCAP (Universities and Colleges with Actuarial Programs) list by Society of Actuaries (SOA). Our minor program has currently achieved the tier *UCAP-Advanced Curriculum*. More details can be found in the following website: https://www.soa.org/institutions/

Our courses in minor programs currently cover syllabus of exam P (Probability), FM (Financial Mathematics), STAM (Short-term Actuarial Mathematics), LTAM (Long-term Actuarial Mathematics) and IFM (Investment and financial market). The details can be found in the following table:

| Exams | Relevant courses (offered in HKUST) |
|---|---|
| P | MATH2411 -- Applied Statistics<br>MATH2421 -- Probability |
| FM | MATH2511 – Fundamentals of Actuarial Mathematics<br>MATH4512 -- Fundamental of Mathematical Finance* |
| STAM | MATH4427 – Loss models and their applications<br>MATH4428 – Bayesian Analysis and Credibility Theory |
| LTAM | MATH4513 -- Life Contingencies Models and Insurance Risks |
| IFM | MATH4512 -- Fundamental of Mathematical Finance<br>MATH4514 -- Financial Economics in Actuarial Science |

(*Note: The topic 1 of MATH4512 (bond immunization) is relevant to Exam FM)

In addition, we offer courses that can cover all Validation by Educational Experience (VEE) topic areas. The details can be found in the following table:

**Courses for fulfilling Validation by Educational Experience (VEE) requirement (as of 1st Aug, 2021)**

| **Topic Area** | **Approved HKUST courses** | **Expiry date** | **Remark** |
|---|---|---|---|
| **VEE in Mathematical Statistics** | **MATH3423 (B- or above)** | **31st Dec, 2023** | **Nil** |
| **VEE in Economics*** | **ECON2103 (B- or above)** | **31st Dec, 2025** | **For microeconomics component only** |
| | **ECON2123 (B- or above)** | **31st Dec, 2025** | **For marcoeconomics component only** |
| | **ECON2113 (B- or above)** | **31st Dec, 2025** | **For microeconomics component only** |
| | **ECON3123 (B- or above)** | **31st Dec, 2025** | **For marcoeconomics component only** |
| | **ECON3133 (B- or above)** | **31st Dec, 2025** | **For microeconomics component only** |

| | | | |
|---|---|---|---|
| **VEE in Accounting and Finance**** | **FINA2203 (B- or above)** | **31st Dec, 2023** | **For finance component only** |
| | **FINA2303 (B- or above)** | **31st Dec, 2023** | **For finance component only** |
| | **ACCT1010 (B- or above)** | **31st Dec, 2023** | **For accounting component only** |
| | **ACCT2010 (B- or above)** | **31st Dec, 2023** | **For accounting component only** |
| | **ACCT3030 (B- or above)** | **31st Dec, 2023** | **For accounting component only** |

***Note: To fulfil VEE requirement in economics, student must take one course in microeconomics AND one course in macroeconomics.**
****Note: To fulfil VEE requirement in accounting and finance, student must take one course in finance AND one course in accounting**
*****Note: The student can grant the VEE credits if he/she has taken those courses before the expiry date.**

**Reimbursement scheme of SOA preliminary examination (For academic year 2022-2023)**
Being part of UCAP-AC list, up to **3** students can apply for reimbursements of examination fees of preliminary exam (for exams IFM, LTAM, STAM and SRM only) in each academic year.

**Eligibility**
In order to be eligible for our reimbursement scheme, the student must fulfil the following criterions:

- He/she must be the on-going student in minor program of actuarial mathematics (ACTM);
- He/she must have completed MATH2511 (required course of ACTM) and have achieved a grade **B or above** in at least one of the advanced elective courses chosen from the following list:
  - **MATH4427** - Loss models and their application
  - **MATH4512** - Fundamental of Mathematical Finance
  - **MATH4513** - Life Contingencies Models and Insurance Risks
  - **MATH4514** - Financial Economics in Actuarial Science
- He/she must have completed one of the above four preliminary exams and has achieved a passing score during the academic year (1st Sept 2022 – 30th May, 2023). The **grade release date** will serve as the eligibility date for the exam.
- He/she have not received any reimbursement from this reimbursement scheme.

**Application procedure**

Eligible students should send the request to the MATH UG team (mathug@ust.hk) with the following documents:

- Most updated unofficial transcript,
- Official grade result of relevant SOA exam(s)

**Selection criterion**

At most 3 awards will be given in each academic year based on the students' performance in the advanced elective courses in actuarial mathematics listed as follows:

- **MATH4427** - Loss models and their application
- **MATH4512** - Fundamental of Mathematical Finance
- **MATH4513** - Life Contingencies Models and Insurance Risks
- **MATH4514** - Financial Economics in Actuarial Science

The final awardee will be selected based on (1) the number of advanced elective courses above taken by the students and (2) the grades achieved in these courses.