Information Session for BSc(ActuarSc) (6729) Freshmen in 2019-20

Date: August 9, 2019 (Friday)
Time: 2 p.m. - 4 p.m.
Venue: CPD-LG.18, LG/F, Centennial Campus, HKU

This session is very important for all actuarial science freshmen. In this session, the students will meet our actuarial science teachers. The session will cover various important topics about the actuarial profession and the HKU actuarial curriculum, including course selection, internship opportunities, exchange program, exemptions from professional bodies, etc. Towards the end of the session, students are free to ask questions.

ENQUIRY: 3917 8312, saas@hku.hk
Your Degree

- Bachelor of Science in Actuarial Science
  - BSc(Actuarial Science)
  - BSc(ActuarSc)
  - BSc(AC)

- Department of Statistics and Actuarial Science

- Faculty of Science (6 Departments/School)

- The University of Hong Kong (10 Faculties)
First Year Experience

- http://wp2.cedars.hku.hk/fye/
Current Students ➔ [Undergraduate Programmes]
Useful Resources ➔ Handbooks

Undergraduate Programmes
- About the programmes
- Academic Matters
- Student Experiential Learning and Enrichment Opportunities

Research Postgraduate Programmes
- General Information
- News
- Coursework Information

Useful Resources
- Handbooks
- Forms
- Calendar & Timetables
- Articulation Pathways
- News
SYLLABUSES (MAJORS, MINORS & COURSES)

This online undergraduate syllabuses and regulations system provides you with the most updated information on the full list of courses and their description, and details on the Science majors and minors. Departmental websites may also provide details on majors, minors and courses offered by the Schools/Departments.

Check Course Details

Check Capstone Requirements for Each Major / Programme

Check Science Major / Minor / Programme Structure

Past Syllabuses and Regulations (2018 - 2019 or before)

Admission Year → 2019
→ Programme
→ BSc in Actuarial Science
### BSc(ActuarSc) Programme Requirements

#### 1. Year I Courses

**Disciplinary Core Courses (42 credits)**
- ACCT1101: Introduction to financial accounting (6)
- ECON1210: Introductory microeconomics (6)
- ECON1220: Introductory macroeconomics (6)
- MATH1821: Mathematical methods for actuarial science I (6)
- MATH2822: Mathematical methods for actuarial science II (6)
- STAT2901: Probability and statistics: foundations of actuarial science (6)
- STAT2902: Financial mathematics (6)

#### 2. Year II Courses

**Disciplinary Core Courses (42 credits)**
- COMP1117: Computer programming (6)
- STAT3901: Life contingencies I (6)
- STAT3902: Statistical models (6)
- STAT3903: Stochastic models (6)
- STAT3904: Corporate finance for actuarial science (6)
- STAT3905: Introduction to financial derivatives (6)
- STAT3907: Linear models and forecasting (6)

#### 3. Year III Courses

**Disciplinary Core Courses (30 credits)**
- STAT3906: Risk theory I (6)
- STAT3908: Credibility theory and loss distributions (6)
- STAT3909: Life contingencies II (6)
- STAT3910: Financial economics I (6)
- STAT4904: Statistical learning for risk modelling (6)

#### 4. Year IV Courses

**Disciplinary Electives (12 credits)**
- **At least 12 credits selected from the following courses:**
  - STAT3911: Financial economics II (6)
  - STAT3951: Further topics in contingencies (6)
  - STAT3953: Fundamentals of actuarial practice (6)
  - STAT3954: Current topics in actuarial science (6)
  - STAT3955: Survival analysis (6)
  - STAT3956: Pension funds and pension mathematics (6)
  - STAT4607: Credit risk analysis (6)
  - STAT4608: Market risk analysis (6)
  - STAT4901: Risk theory II (6)
  - STAT4902: Selected topics in actuarial science (6)
  - STAT4903: Actuarial techniques for general insurance (6)

#### 5. Capstone Requirement (6 credits)
- **At least 6 credits selected from the following courses:**
  - STAT4711: Capstone experience for actuarial science undergraduates (6)
  - STAT4767: Actuarial science internship (6)
  - STAT4798: Statistics and actuarial science project (6)

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**Remarks:**

- **Core:** MUST take
- 1 course = 6 credits
- 240 credits = graduation
- **Study 8 semesters** *(include exchange, exclude internship)*
- 1 semester = 30 credits = 5 courses
- 1 year = 60 credits = 10 courses
- > 36 or < 24 credits in one semester → need special approval, not allowed in first year
- Total number of credits cannot exceed 288 credits
Department Office: 3/F, Run Run Shaw Building

Bachelor of Science in Actuarial Science (BSc(ActuarSc))

- Syllabuses & Regulations for BSc(ActuarSc)
- Actuarial Project / Directed Studies / Capstone Experience Courses (2019-20)
- STAT4767 Actuarial Science Internship

For Freshmen
- Information Session for Actuarial Science Freshmen 2018-19 (Updated on June 27, 2018)
- AS Induction Day (Updated on August 10, 2018)
- Notes on Course Selection for Actuarial Science Freshmen (2018-19) (Updated on August 23, 2018)
- BSc(ActuarSc) first year timetable 2018-19 (Updated on August 17, 2018)
- Suggested BSc(ActuarSc) 4-year Curricular Structure (for students admitted in 2018) (Updated on August 6, 2018)
- Structure of Courses for BSc(Actuarial Science) (for students admitted in 2018) (Updated on August 6, 2018)
Academic Dates Terminology

- HKU: 1\textsuperscript{st} Semester, 2\textsuperscript{nd} Semester, Summer Semester
- Course selection period
- Suspension period
- Add/drop period
- Reading week
- Revision period
- Assessment period

- Lectures and Tutorials/Example Classes
- Important Academic Dates 2019-20

- From Academic Advising Office (AAO): http://aao.hku.hk/sy3/plan-of-study/important-academic-dates/
# 2019-2020 First Semester

**Teaching period**

**Tutorial classes usually start from the 2\(^{nd}\) week of teaching**

(Follow instructions of individual courses)

**First Day of Teaching:** Sep 2, 2019

**Reading/Field Trip Week:** Oct 14 - 19, 2019

**Last Day of Teaching:** Nov 30, 2019

**Revision Period:** Dec 2 - 6, 2019

**Assessment Period:** Dec 7 - 23, 2019

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### Teaching Weeks 2019-20 for Undergraduate and Taught Postgraduate Students

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Special Approval

• Prerequisite not met
  – Course Approval Form to Department

• Time clash
  – Course Approval Form to Department
  – Not approved unless under very special circumstances

• Taking course load deviating from normal load
  (> 36 or < 24 credits in 1 semester, or > 72 credits in 1 year)
  – Application form to Department
  – Not for first year students

• All the forms are downloadable from the Faculty website:
  Current Students → [Undergraduate Programmes] Useful Resources → Forms
Course Selection Reminder

- A step-by-step manual for course selection in SIS

The latest result of all your enrollments can be viewed in the **Self Service > Enrollment > Enrollment Status** page.
Course Selection Advisers

• Dr. K.C. Cheung
  – RRS219
  – kccg@hku.hk

• Dr. D. Lee
  – RRS120
  – leedav@hku.hk

• Dr. K.P. Wat
  – RRS235
  – watkp@hku.hk
Other Actuarial Teachers

- Dr. A.G. Benchimol
  - RRS120
  - benchi@hku.hk

- Dr. J.T.Y. Wong
  - RRS221
  - jefftywong@hku.hk

- Prof. H. Yang
  - RRS232
  - hlyang@hku.hk

- Prof. K.C. Yuen
  - RRS231
  - kcyuen@hku.hk
  - Programme Director
Professional Exams

• Institute and Faculty of Actuaries (IFoA) (https://www.actuaries.org.uk/)
  – To be an Associate of IFoA:
    • Core Principles (CS1-2, CM1-2, CB1-3)
    • Core Practices (CP1-3)
    • Personal and Professional Development (PPD)

• Society of Actuaries (SOA) (https://www.soa.org)
  – To be an Associate of SOA (ASA):
    • 7 Exams: P, FM, IFM, LTAM, STAM, SRM, PA
    • 3 VEE Topics: (https://www.soa.org/education/exam-req/edu-vee.aspx)
      ✓ Economics
      ✓ Accounting and Finance
      ✓ Mathematical Statistics
    • FAP e-Learning Course
    • Associateship Professionalism Course (APC)
IFoA Curriculum since 2019

Qualification: Associate

- Actuarial Statistics
  - Actuarial Statistics CS1
- Actuarial Mathematics
  - Actuarial Mathematics CM1
- Risk Modelling and Survival Analysis
  - Risk Modelling and Survival Analysis CS2
- Financial Engineering and Loss Reserving
  - Financial Engineering and Loss Reserving CM2
- Business
  - Business Finance CB1
  - Business Economics CB2
  - Business Management CB3

Core Principles

- Actuarial Practice
  - Actuarial Practice CP1
- Modelling Practice
  - Modelling Practice CP2
- Communications Practice
  - Communications Practice CP3

Pass all Core Principles and Core Practice exams

Qualification: Fellow

- Alternative
  - Master’s level dissertation SP0
- Health and Care
  - Health and Care Principles SP1
- Life Insurance
  - Life Insurance Principles SP2
- Pensions and other benefits
  - Pensions and other benefits Principles SP3
- Investment and Finance
  - Investment and Finance Principles SP4
  - Investment and Finance SP5
  - Financial Derivatives Principles SP6
- General Insurance
  - General Insurance Reserving and Capital Modelling Principles SP7
  - General Insurance Pricing Principles SP8
  - General Insurance Advanced SA3
- Enterprise and Risk Management
  - Enterprise Risk Management Principles SP9

Specialist Principles

- Master’s level thesis SA0
- Health and Care Advanced SA1
- Life Insurance Advanced SA2
- Pensions and other benefits Advanced SA4
- Investment and Finance Advanced SA7

Specialist Advanced

Pass two SP subjects
Pass one SA subject
Currently, our Department has an accreditation agreement with IFoA for the exemption of the existing IFoA subjects CT1 to CT8.

- https://saasweb.hku.hk/current/as/ac-exemptions.php

In 2019, the IFoA curriculum will change and the current CT1 to CT8 will be replaced by 6 Core Principles exams (CS1-2, CM1-2, CB1-2)

**Updates:**
We are now in the final stage of applying for the new accreditation agreement for a block exemption of all the 6 Core Principles exams for BSc(ActuarSc) students graduating with satisfactory results.
SOA Curriculum since 2018

Qualification: Associate

INTRODUCTORY I

VEE ECONOMICS
*ECON1210, *ECON1220

VEE ACCOUNTING AND FINANCE
*ACCT1101, *STAT3904

EXAM FINANCIAL MATHEMATICS
STAT2902, STAT3905

INTRODUCTORY II

EXAM INVESTMENT AND FINANCIAL MARKETS
STAT3903, STAT3904, STAT3905, STAT3910

EXAM MATHEMATICAL STATISTICS
*STAT3902

ACTUARIAL

EXAM LONG-TERM ACTUARIAL MATHEMATICS
STAT3901, STAT3903, STAT3906, STAT3909, STAT3956

EXAM SHORT-TERM ACTUARIAL MATHEMATICS
STAT3906, STAT3908, STAT4903

V E E
STAT3902

EXAM STATISTICS FOR RISK MODELING
STAT3907, STAT4608, STAT4904

e-LEARNING
FUNDAMENTALS OF ACTUARIAL PRACTICE
STAT3953

PROJECT
PREDICTIVE ANALYTICS
STAT4904

ADVANCED

PROFESSIONALISM

SEMINAR
ASSOCIATESHIP PROFESSIONALISM COURSE

YOU MUST COMPLETE 2 EXAMS BEFORE APPLYING TO VALIDATE YOUR EDUCATIONAL EXPERIENCE (EDUCATIONAL EXPERIENCES MAY HAVE OCCURRED PRIOR TO COMPLETING EXAMS).

*VEE approved courses
SOA Preliminary Exams

• Exam P
  – STAT2901, STAT3902

• Exam FM
  – STAT2902, STAT3905

• Exam IFM
  – STAT3903, STAT3904, STAT3905, STAT3910

• Exam LTAM
  – STAT3901, STAT3903, STAT3906, STAT3909, STAT3956

• Exam STAM
  – STAT3906, STAT3908, STAT4903

• Exam SRM
  – STAT3907, STAT4608, STAT4904

• Exam PA
  – STAT4904
SOA Validation by Educational Experience (VEE)

- **VEE Economics**
  - ECON1210, ECON1220

- **VEE Accounting and Finance**
  - ACCT1101, STAT3904

- **VEE Mathematical Statistics**
  - STAT3902

Remarks:
There are other courses approved by SOA, but they are *not core courses* of the BSc(AC) programme. Some of them are *mutually exclusive* with our core courses.

https://saasweb.hku.hk/current/as/vee.php
Other Graduation Requirements

• Other than taking Disciplinary Core and Elective courses

• 3 Language Courses
  – CAES1000 (Year 1)
  – CAES9821 (Year 2) [*no exemption with whatsoever qualifications*]
  – CSCI9001 (Year 3)

• 6 Common Core (CC) Courses

• 1 Capstone Course
  – STAT4711 [Group Project]
  – STAT4767 [Internship]
  – STAT4798 [Individual Project]
Exchange Credit Transfer

- Faculty of Science: Course Equivalence Database
  - [https://webapp.science.hku.hk/student/servlet/course_equiv](https://webapp.science.hku.hk/student/servlet/course_equiv)

For credit transfer reference:
Students on exchange may take courses regarded as equivalent to some HKU courses to fulfill the degree requirement.
**Internship**

- Usually in Year 3 or Year 4
- 6 months (e.g. January-June or July-December)
- Need to apply for leave of absence, and defer the study

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- If you wish to use your internship to fulfill the **Capstone Requirement**: STAT4767 Actuarial science internship,
  - the earliest time you can start your internship is the summer after your Year 2 study;
  - you must have passed 4 advanced disciplinary courses including STAT3901 Life contingencies I prior to the start of the internship;
  - submit your registration prior to the start of the internship.

- Check the details on the Department website: [https://saasweb.hku.hk/current/stat4767.php](https://saasweb.hku.hk/current/stat4767.php)
Career Support and Activities

• Centre of Development and Resources for Students (CEDARS) (www.cedars.hku.hk)
• Prelude to Actuarial Internships and Workplace Etiquette Workshop
• Actuarial Internship Presentation by senior AS students
• Departmental Internship/Job Online-application System
• Career Advising Programme (CAP)
  ☺ Professional Preparation Programme (PPP)
  ☻ Individual consultation on cover letter, CV and interview skills
  ☻ Corporate Mentorship Programme (CMP)
  ☻ Market information workshop
  ☻ Firm visits and alumni sharing
  ☻ SAAS Career Fair
University Resources

• HKU Library (HKUL)
  – [lib.hku.hk](http://lib.hku.hk)

• Examinations Office
  – [www.exam.hku.hk](http://www.exam.hku.hk)

• Centre of Development and Resources for Students (CEDARS)
  – [www.cedars.hku.hk](http://www.cedars.hku.hk)

• Academic Advising Office (AAO)
  – [aao.hku.hk](http://aao.hku.hk)

• University Health Service (UHS)
  – [www.uhs.hku.hk](http://www.uhs.hku.hk)

• Centre for Sports and Exercise
  – [cse.hku.hk](http://cse.hku.hk/)