

BSc(Actuarial Science)

- ▶ The BSc in Actuarial Science, the only programme of its kind in Hong Kong, provides formal academic training to students who wish to join the actuarial profession.
- ▶ The programme is designed to provide specialist training in actuarial science and prepare students for the professional examinations of the Institute and Faculty of Actuaries (IFoA), the Society of Actuaries (SOA) and Casualty Actuarial Society (CAS).




BSc(Actuarial Science)

- ▶ Academic training
 - ▶ Coursework, exam, projects
- ▶ Career preparation
 - ▶ Mentorship programs, workshop, Career Fair
- ▶ Industry experience
 - ▶ Internship, part-time actuarial work
- ▶ Capstone activities
 - ▶ Directed studies, final year project
- ▶ Other exposures
 - ▶ Exchange study, Case challenge competition



Professional development for students

- ▶ Including different elements via various activities in each year of study
 - ▶ Year 1
 - ▶ Learning background from various parties
 - ▶ Year 2
 - ▶ Job seeking preparation stage
 - ▶ Year 3
 - ▶ Practical work in industry
 - ▶ Year 4
 - ▶ Further exposure through experience
- **Passive**
 - **Technical preparation**
- 
- **Active**
 - **Experiential learning**

Professional development for students

- ▶ Getting in line with academic curriculum structure
- ▶ Year 1
 - ▶ Learning background from various parties
 - ▶ Financial math, quantitative training
- ▶ Year 2
 - ▶ Job seeking preparation stage
 - ▶ Programming, insurance, modelling
- ▶ Year 3
 - ▶ Practical work in industry
 - ▶ Advanced knowledge, statistical analysis
- ▶ Year 4
 - ▶ Further exposure through experience
 - ▶ Specialized: GI, pension, actuarial practice

Professional development for students

- ▶ Year 1
- ▶ Prelude to Actuarial Internships



Professional development for students

- ▶ Year 1
- ▶ Workplace Etiquette Workshop



Professional development for students

▶ Year 1

- ▶ Internship presentation sessions conducted by senior year students
 - ▶ Sharing session
- ▶ Mentorship programme
 - ▶ Some insurance companies
- ▶ Professional Preparation Programme (PPP)
 - ▶ Interview workshop
 - ▶ Case analysis



Professional development for students

▶ Year 2

- ▶ Career Advising Programme (CAP)
 - ▶ Internship / Job Online-application System
 - ▶ CV review by Career Advisor
 - ▶ Frequent posting of job-ads
 - ▶ Well established connection with employers
 - ▶ Available to alumni

Job ID	Company Name	Job Title / Job Description / Email	Closing Date	Action
Internship_ASASST	Prudential Hong Kong Limited	Actuarial Intern (J&C) (2018.10.11)	2017-11-30	apply
Internship_STAAS	J.P. Morgan	2018 CM Bank Risk Management Summer Analyst Program # 1234	2017-10-29	Please apply directly through https://smc.recruiting.com/external/careers/2018/CM/Original/1234/07/5678
Full-time_ASASST	Worleyparsons	Quantitative Researcher (QRA) (Last to 2018.10.12)	2017-10-31	Submit completed application via email at work@wparsons.com
Internship_ASASST	Worleyparsons	2018 Quantitative Researcher Summer Intern (6-1250)	2017-12-31	www.WorleyParsons.com/ChinInternship
Internship_ASASST	Huatai Financial Holding (HK) Limited	Quantitative Developer Intern (2-6 months) (PK1254)	2017-10-22	qsthai@huatai.com
Part-time_ST	City University of Hong Kong	Research Assistant (part-time) (SA-1255)	2017-10-22	Submit completed application via email at graduate@cityu.edu.hk
Internship_ASASST	KPMG	Internship (2017-18) (IL1256)	2017-11-30	kpmg.com/buyers
Internship_ASASST	Manulife Financial	Data Analytics Intern (FT or PT) (SS1257)	2017-10-22	Submit completed application via email at Screening_Su@manulife.com
Part-time_ASASST	Autodesk Software Limited	Machine Learning Internship (FT) (161616) from 2017.11.15-15.00	2017-10-22	Submit completed application via email at contact@autodesk.com
Full-time_ASASST	Hong Kong Exchanges and Clearing Limited	Management Trainee Programme (GPASD) (AL1258)	2017-11-30	Please apply directly through http://www.hkex.com.hk/careers/students_and_graduates?ic=home
Internship_ASASST	Hong Kong Exchanges and Clearing Limited	Summer Internship Programme (AS-AUG) (AL1259)	2017-12-31	Please apply directly through http://www.hkex.com.hk/careers/students_and_graduates?ic=home

Actuarial Science and Decision Analytics / Risk Management / Statistics students can contribute to the employer's company in many areas:

Skills and Areas of Knowledge	Typical Job Areas
<ul style="list-style-type: none"> • financial services and banking • insurance pricing and analysis • actuarial consulting • pension and benefit programme evaluation • financial reporting • risk analysis • data mining • opinion and market surveys • forecasting • quality control • biostatistics 	<ul style="list-style-type: none"> • data analysis for evaluation of programmes • end-user computer support • designing work sheets and graphs • using PC spreadsheet software • financial analysis using actuarial and statistical techniques • software development and programming • valuation of pension plans • preparation of employee statements

Professional development for students

- ▶ Year 2
- ▶ Firm Visits



Professional development for students

- ▶ Year 2
- ▶ Alumni Sharing



Professional development for students

- ▶ Year 2
- ▶ Career Fair



Professional development for students

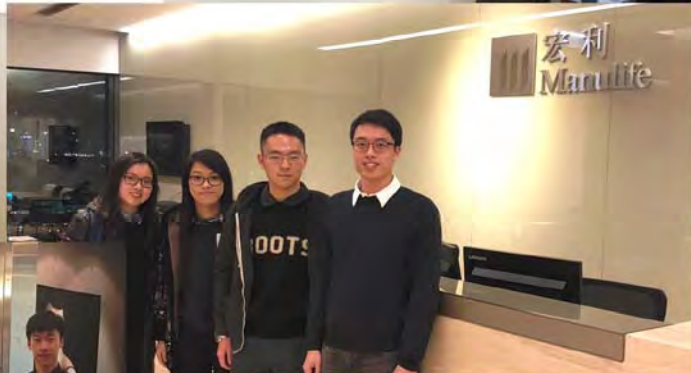


- ▶ Year 2
- ▶ Certificate Course in Essential IT Skills for Statistical and Risk Analysts
 - ▶ SPSS
 - ▶ Tableau
 - ▶ C++
 - ▶ Excel VBA
 - ▶ SQL
 - ▶ Bloomberg visit
 - ▶ R
 - ▶ Python
 - ▶ Group project and presentation



Professional development for students

- ▶ Year 3
- ▶ Internship experience



Professional development for students

- ▶ Year 3
- ▶ Exchange study



Professional development for students

- ▶ **Year 4**
- ▶ Fulfilling capstone experience for degree

Capstone courses in curriculum

- ▶ Each Actuarial Science is required to complete at least one capstone course to fulfill the degree requirement.
- ▶ 3 possible choices
 - ▶ STAT4767 Actuarial science internship
 - ▶ STAT4798 Statistics and actuarial science project
 - ▶ STAT4711 Capstone experience for actuarial science undergraduates



Capstone courses in curriculum

▶ **STAT4767 Actuarial science internship**

- ▶ Students are required to participate in a 6-month full-time internship related to Actuarial Science.
- ▶ Take a leave for one semester
- ▶ Work in an insurance company, bank, consulting firm, etc.
- ▶ As an actuarial analyst or assistant
- ▶ In modelling team, pricing and valuation, compliance department

Apply Internship				Apply for Leave + Apply for Enrolment				Internship Period				Oral Presentation and Report																											
Year 2 Sem 1				Year 2 Sem 2				Year 3 Sem 1				Year 3 Sem 2				Year 4 Sem 1				Year 4 Sem 2				Deferred Year 5															
9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12

Capstone courses in curriculum

▶ **STAT4798 Statistics and actuarial science project**

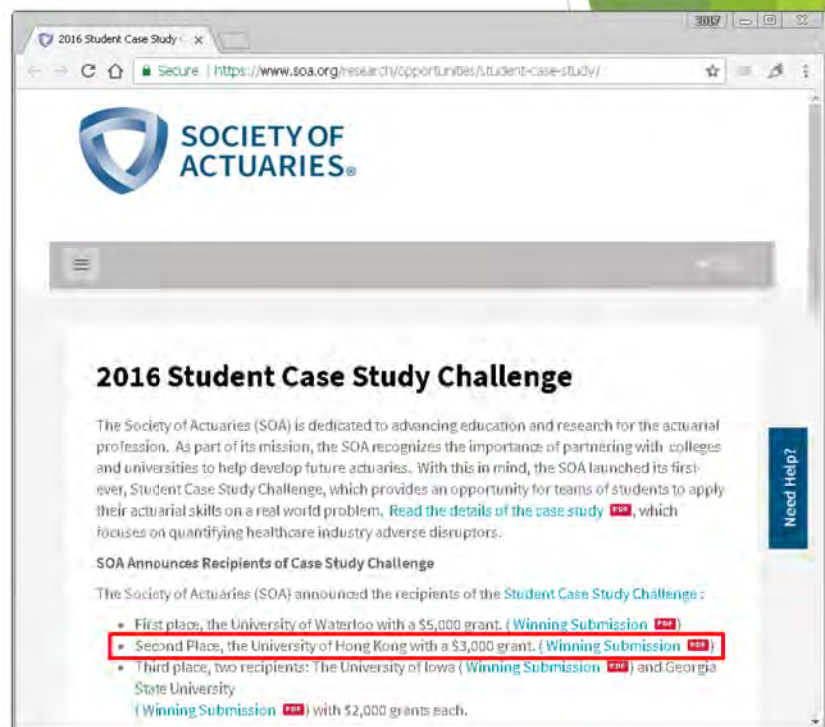
- ▶ The course is like a directed study or final year project.
- ▶ It is an individual project suitable for students who wish to further their study in research-related area.
- ▶ Past topics:
 - ▶ Insurance Risk Models with Dependent Risks
 - ▶ A discounted aggregate reported/unreported claim in the Fractional Poisson process
 - ▶ Google Trend and News
 - ▶ Statistical Analysis of Sports Tournament Data
 - ▶ Analysis of card counting strategies in casino games

Capstone courses in curriculum

- ▶ **STAT4711 Capstone experience for actuarial science undergraduates**
- ▶ This is a project-based course with groups of 4 to 5 students.
- ▶ Each group is under the supervision of a teacher and/or an industry supervisor.
- ▶ The project topic will be discussed and decided upon meetings as well as any current collaborating projects with the supervisors.

Other exposures

- ▶ Student Case Study Challenge by SOA



The screenshot shows a web browser window displaying the Society of Actuaries website. The page title is "2016 Student Case Study Challenge". The main content area features the SOA logo and a navigation menu. Below the menu, the text reads: "The Society of Actuaries (SOA) is dedicated to advancing education and research for the actuarial profession. As part of its mission, the SOA recognizes the importance of partnering with colleges and universities to help develop future actuaries. With this in mind, the SOA launched its first-ever, Student Case Study Challenge, which provides an opportunity for teams of students to apply their actuarial skills on a real world problem. [Read the details of the case study](#), which focuses on quantifying healthcare industry adverse disruptors."

SOA Announces Recipients of Case Study Challenge

The Society of Actuaries (SOA) announced the recipients of the Student Case Study Challenge:

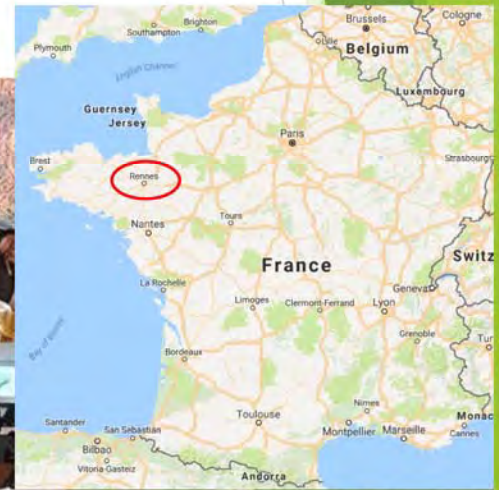
- First place, the University of Waterloo with a \$5,000 grant. ([Winning Submission](#))
- Second Place, the University of Hong Kong with a \$3,000 grant. ([Winning Submission](#))
- Third place, two recipients: The University of Iowa ([Winning Submission](#)) and Georgia State University ([Winning Submission](#)) with \$2,000 grants each.

A "Need Help?" button is visible on the right side of the page.

Other exposures

- ▶ ENSAI: Ecole nationale de la statistique et de l'analyse de l'information (French)
- ▶ National School for Statistics and Data Analysis
- ▶ A two-week overseas study exchange tour in summer

Faculty-sponsored
Two-week Overseas
Study Exchange to
Rennes, France
in Summer



Other exposures

- ▶ Enrollment into a specific statistics course of 20 hours organized by ENSAI
- ▶ Visit the city of Rennes and the surrounding Brittany region
- ▶ Participation in ongoing seminars at ENSAI



~ Thank You ~

PROFESSIONAL
DEVELOPMENT

