

Faculty of Science  
The Chinese University of Hong Kong

# RISK MANAGEMENT SCIENCE PROGRAMME



$f(x)$



ADMISSIONS  
HANDBOOK  
2018-19



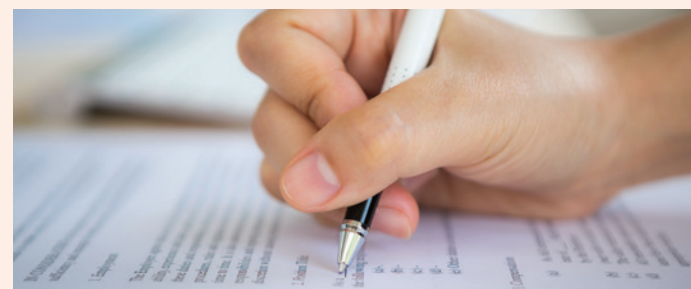
## Overview

Since its establishment in 2000, the Risk Management Science Programme has been the pioneer in Hong Kong for nurturing well-trained professionals in the risk management field.

Recent financial crises have stimulated public interest in risk management and raised awareness of its importance in today's investment environment. The ability to extract meaning from data and possess a thorough understanding of risk management has become vital to financial institutions. This programme is designed to fulfil the increasing demand for talent in this area.

Our programme is tailored for students who want to pursue a career in the financial industries, and who are interested in quantitative and mathematical methodologies. It is specifically designed to equip students with the knowledge and skills to understand risk management from both theoretical and application perspectives in insurance, finance and other related areas. Risk management is an interdisciplinary subject. Our students receive solid training in statistics and other foundational subjects including finance, economics, accounting, mathematics and computer science. In addition, various enrichment activities such as alumni talks and seminars, research-based projects and industrial practicums provide in-depth professional training and act as a bridge between the classroom and industry.

Our graduates are well equipped for positions in risk management, finance, banking, insurance and related areas in which the quantitative and analytical skills of risk management are required.



## Admission

### Basic Information

- Duration of Study: 4 years
- Number of Students Intake quota: 25-30^
- JUPAS Code: JS4719

### Admission Requirements and Formula

JUPAS applicants must satisfy the following minimum levels in the Hong Kong Diploma of Secondary Education Examination (HKDSE). The programme admission score is computed based on the best five subjects (after weighting). Bonus points are granted for each extra core or elective subject, if any.

<b>Core Subjects</b>	Chinese Language Minimum Level: Level 3 Weighting: 1.0	Core Mathematics Minimum Level: Level 3 Weighting: 2.0
	English Language Minimum Level: Level 3 Weighting: 1.0	Liberal Studies Minimum Level: Level 2 Weighting: 0.5
<b>Elective Subjects</b>	Mathematics (Module 1 or 2) Minimum Level: Level 3 Weighting: 2.0	Elective (Any one of Category A elective subjects) Minimum Level: Level 3 Weighting: 1.0

### JUPAS Statistics

	HKDSE	CHI	ENG	MATH	LS	M1/M2	Best Elective	Second Elective	Third Elective
2018#	Upper Quartile	5	5	5*	4	5*	5*	5	
	Median	4	4	5	4	5*	5*	5*	
	Lower Quartile	4	4	5*	4	5*	5	4	
2017	Upper Quartile	3	4	5*	3	5	5**	5*	5
	Median	5	4	5	5	5*	5*	5	
	Lower Quartile	4	4	5*	5*	5	5	5	5

#As of September 2018

^As the 2019/20 Academic Year is the start of the 2019-22 triennium for which UGC-funded programmes are still subject to the Government's and Legislative Council's approval, the number of student intake places shown in this handbook is indicative only and subject to change or confirmation at a later stage.

## Risk Analytics Stream



As the epoch of big data has arrived, practices in the risk management industry have been revolutionised by instantaneous and voluminous data. Advanced knowledge in data science and data analytics such as statistical learning and data mining has come into play. In response to demand for talents in both risk management and data analytics, the new Risk Analytics Stream is offered to elite students in the programme.

Students who obtained a total score of 30 or above in their best five DSE subjects or have obtained a cumulative GPA of 3.7 or above in the first or second year of attendance may apply for specialisation in the Risk Analytics Stream. Students in this stream may pursue a second major in Statistics with additional 15 extra credits.

### SAYT-RMS Summer Course for Prospective Students

The Science Academic for Young Talents (SAYT) organised by the Science Faculty of CUHK provides a number of credit-bearing summer courses for secondary school students.

Our programme provides a foundational course (SAYT1006 – Introductory Risk Management) in which inspiring and interesting fundamental concepts of risk management are discussed. It is scheduled for early August each year and suitable for prospective and interested students. One unit of university credit will be waived upon completion of this course.

For application information, please stay tuned to the SAYT homepage at <http://www.cuhk.edu.hk/sci/sayt/application.html>.

### Other Admission Scheme

Students with qualifications other than HKDSE (e.g., public examinations such as HKCEE, HKALE, IB, SAT, GCE, GCSE or GAO KAO) and diploma/sub-degree credentials are also welcome in the non-JUPAS admission scheme. For further details, please visit the homepage of the Office of Admission and Financial Aid at <http://www.oafa.cuhk.edu.hk/>.

## Curriculum

### Risk Management Science

University Core  
39 credits

Information Technology,  
Chinese and English Languages,  
General Education,  
Physical Education



Faculty Package  
9 credits

Major Core  
42 credits

Major Elective  
21 credits



Free Elective  
≥12 credits



Risk Management



Mathematics and Statistics



Computer Programming



Finances and Economics



Business Communications

For minor in

- Statistics
- Mathematics
- Computer Science
- Finance and Others

### Risk Analytics Stream

University Core  
39 credits



Faculty Package  
9 credits

Major Core  
48 credits

Major Elective  
15 credits



Free Elective  
≥12 credits



Second Major in  
Statistics (Optional)  
15 credits



Alumni Talks and Professional Sharing Sessions



Bloomberg Tutorial Sessions

## Curriculum Overview

Our curriculum places special emphasis on the analytical and critical aspects of risk management. The core courses in the curriculum cover fundamental theories and pragmatic knowledge from a wide range of subjects in mathematics, statistics, finance, accounting, decision science and managerial economics. Elective courses enable students to explore the advanced aspects of risk management, including stochastic calculus, statistical modelling and simulation methods for financial applications.

### Scholarships

- Two full-time first-year undergraduate students in the Risk Management Science Programme will be awarded the Department of Statistics Scholarship upon admission. The scholarship is granted based on admission results. The amount is HK\$10,000 each.
- The Fan Fang Qi Ying Memorial Bursary is offered to a student with demonstrable financial need. The amount is HK\$10,000 and is tenable for a maximum of four years.
- Faculty of Science has launched an Undergraduate Student Exchange Scholarship Scheme to support students to undertake exchange studies abroad.
- University- and College-wide scholarships are also offered on the basis of admission results, academic performance and merit, in addition to financial need. For more information, please visit the website of the Office of Admission and Financial Aid at <http://www.oafa.cuhk.edu.hk/>.

### Enrichment Activities

Our programme includes a series of enrichment activities such as alumni talks, professional sharing sessions and Bloomberg tutorial sessions for students. These activities enhance students' development as risk management professionals and encourage them to adapt to our ever-changing knowledge-based society.



## Career Prospects

Our graduates have a wide range of career choices in finance, banking, insurance and related areas. Popular positions for new graduates include assistant risk manager, market risk officer, credit risk officer, market risk analyst, financial analyst, quantitative analyst, actuarial officer, accounting officer and other positions in major commercial banks, investment banks, security houses, insurance companies and accounting firms. Some of our graduates have pursued Master's and doctoral degrees in prestigious schools overseas and in Hong Kong.

### Investment Banks

- JP Morgan
- Morgan Stanley
- BNP Paribas
- Goldman Sachs
- Royal Bank of Scotland

### Retail Banks

- HSBC
- Standard Chartered Bank
- Bank of East Asia

### Financial Services

- Bloomberg
- Convoy Financial Group

### Government Services

- Census and Statistics Department
- Hong Kong Monetary Authority
- Airport Authority

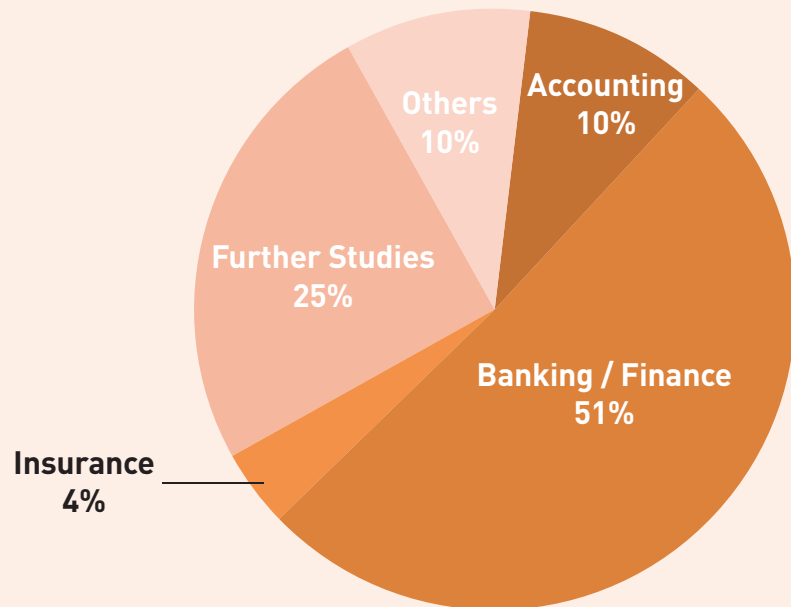
### Accounting and Insurance Firms (Risk Advisory)

- Deloitte & Touche
- KPMG
- Ernst & Young
- HSBC Insurance (Asia)
- AIA Company Ltd

### Further Studies

- MSc/MPhil/PhD in
- Risk Management
  - Statistics
  - Operations Research
  - Financial Engineering

## Employment Statistics of 2016 and 2017 RMSC Graduates



## EXPERIENTIAL LEARNING

### Internships and Practicum

Students may enhance their working experience through summer internships or other internship opportunities. A credit-bearing course (RMSC4202 Practicum) strengthens students' professional training and connects the classroom with the business world. Many participants have received subsequent offers to return to their positions as a result of their outstanding performance.

Some of the companies in which our students have had internships are listed as follows.

BNP Paribas	Citibank	Credit Suisse	DBS Bank
HSBC	Standard Chartered Bank	EFG Bank	Hang Seng Bank
Bank of China	Ernst & Young	Societe Generale	Parexel International
HKEX	CASH Algo	AXA	AIA Group Limited
Gottex Penjing	AON Hong Kong Limited	Airport Authority	AEGON

#### Academic year

2017-18

2016-17

2015-16

(as of September 2018)

Number of students participating in internships and practicums

28

21

32

## Internship Sharing

### Winnie Cheng

Epiphany Asset Management (HK) Limited



I engaged in a part-time internship during my third year in an asset management company to fulfil the capstone of the RMSC Programme. During the internship, I had the chance to engage with real-life market data and decisions made by my supervisor. I helped the portfolio manager to perform different market analyses and participated in making an asset portfolio.

During the process, I got to practise theories I had learned in University courses such as FINA3080 and STAT3008. The finance theories and statistical fundamental analysis I learned at school equipped me for the internship, and I learned different constraints and alternatives when putting theories into practice in real-life work. I also learned about many portfolio management practices and the different concerns of portfolio managers. The internship also showed me the importance of technology in finance and trading. Almost all analyses require the help of computer programs, and the internship encouraged me to self-learn these programs.

Through portfolio planning and communicating with colleagues, I learned many things that were not taught in school. I was grateful to have a wonderful working environment with my supervisor and colleagues. The internship experience provided me with precious exposure in the asset management industry along with first-hand experience. It helped me to plan my future career. I am thankful for the help given by our Department while applying for the internship.

### Kaiser Fan

HSBC



It was a pleasure to work in the HSBC Actuarial Department as a student trainee. My colleagues were helpful, and they gave me deep insight into the HSBC insurance products and the actuarial analytics field.

During the six-month internship period, I was given the opportunity to conduct full experience studies, including claims and lapse studies. At first, I followed every step in the manual, dragging data from Teradata SQL Assistance, inputting model point files for simulations and updating Excel spread sheets. However, I encountered difficulties, as the manual was outdated. Fortunately, my colleagues spent time explaining the theory and mechanism behind the studies. I started to comprehend the various factors affecting the studies, such as how mortality and morbidity rates affected the lapse rate.

I was also responsible for completing the stress test. There were many different scenarios to generate to test the effect of two economic factors, risk-free rate and equity pricing, on the solvency position of the company. To speed up the process, I built a VBA macro to link and update files. I learned the theory and process behind building a one-year forward rate curve.

In addition to my major duty, I learned various computer programs, including Excel VBA, Terada SQL Assistance and Prophet Studio, in addition to a lot of the shortcut keys designed for Microsoft Excel. In particular, Excel VBA, Teradata SQL Assistance and the shortcut keys were of paramount importance in the risk management field.

This internship not only gave me experience in the insurance actuarial field, but also helped me to make new friends. The eight interns in the Actuarial Department held regular intern lunch meetings on Thursdays and even sang karaoke on Saturdays. Finally, I would like to express my gratitude and appreciation to my colleagues and the interns for their support.

### Leung Siu Yu

Hang Seng Bank



I worked as an intern in the Retail Portfolio Management Department at Hang Seng Bank for the past year. During my internship, I completed various assignments and gained invaluable experience.

I performed different kinds of monthly reports and ad hoc tasks. As I worked in the Retail Portfolio Management Department, most of my work was related to retail products, such as credit cards, personal loans and mortgages. For example, I monitored the monthly card authorisation rate to detect any sharp rises or drops in the approval rate. In addition, I analysed weekly bankruptcy cases to find special customer characteristics or patterns. I also investigated merchants to find instances of fraud and efforts to swindle money from customers and banks.

From these assignments, I came to understand much more about retail credit risk. For example, we were given a large variety of retail products, each with different properties, and had to perform different measures to manage the risk of each product. Moreover, my programming and computer skills improved greatly after instruction from my colleagues and a lot of practice.

Apart from learning hard skills, I obtained many soft skills. Teamwork was vital in the office, as we were working as a team and division of labour was always needed to improve efficiency. Furthermore, time management was important, as there was always more than one task on hand and prioritisation was needed.

Overall, this internship was a rewarding experience for me to learn and make connections between study and work. Do not let the chance slip by if you have the opportunity to work as an intern!

### Poon Ling

CASH Algo



Working at CASH Algo offered me a valuable opportunity to learn about trading, and particularly algo trading. My supervisor Dr Alfred Ma provided interns with an appropriate environment to absorb knowledge and grow. I was given tasks from the different stages of production to see the whole picture of algo trading. I am very thankful for his guidance.

The first task I was given was to review hypothesis-testing methods. Monitoring strategic performance is an essential and major part of the work of algo trading. The profitability of a strategy may decay because of a fundamental change in environment or increasing competition. My job was to search for appropriate methods to test for differences in backtest and real trade returns, and then implement them in Python. The experience of coding in Python and seeing real data examples helped me to learn data-handling procedures in Python quickly.

Although I do not normally read papers before internships, I learned that a lot of academic knowledge and trading ideas could be gained from doing so, and I learned how to search for relevant papers.

Moreover, I was able to work with high-calibre colleagues who were very knowledgeable in trading or academia. I had many interactions and discussions with them and learned a lot of trading concepts. Although these results had no physical output, they were equally important in my development.

All in all, the internship was a fruitful experience that allowed me to gain practical knowledge in algo trading, improve my work attitude and establish networks within the industry.

## Internship Sharing

### Ken Wun

Ernst & Young Advisory Services Limited



It was a pleasure to be given the opportunity to work in the Financial Service Risk Management Department under Ernst & Young Advisory Services Limited as a Risk Advisory intern from January to April 2018.

I participated in a local famous bank project during the programme. The scope of this project involved developing an internal-rating-based (IRB) system that included several scorecards and calculating the probability of default (PD), exposure at default (EAD), loss given default (LGD) and risk-weighted assets.

I was assigned some easy tasks in the first two weeks, such as preparing the presentation materials and writing model documents. After the honeymoon period, I assisted in the SAS program and Excel tasks. It was difficult for me to use SAS because I had no prior knowledge of the program. When working on the primary stages of a certain project, things can change very quickly and dramatically. Fortunately, my supervisor was nice and patient when offering explanations. I caught up quickly and assisted with the SAS work.

During the project, I had to apply the statistics and programming knowledge I acquired from lectures. I was happy to use all of my theoretical knowledge and apply it to real-life situations, such as using an F-test to separate the dataset, reading the regression outcome from SAS and writing a VBA program for a different task.

I also acquired new knowledge of the elements of credit risk (PD, LGD and EAD) and the risk management system in a commercial bank. I had a chance to familiarise myself with the VBA and SAS programs, which will be useful in my future career. Before my first day at Ernst & Young, I knew nothing about credit risk. I would have never known how the IRB system worked if I had not interned there.

Overall, my work experience at Ernst & Young was positive and meaningful. I am happy with a lot of the things I learned and experienced in my four and a half months as a risk advisory intern with the company. I believe my experience at Ernst & Young improved my abilities and gave me insight into the risk management and compliance industry in Hong Kong.

### Niko Man HKEX



Last summer, I worked at Hong Kong Exchanges and Clearing Limited (HKEX) as an intern for eight weeks. Each of the 23 summer interns was assigned to a supervisor. A few seminars were held to help us understand the daily operations of each department at HKEX and give us a comprehensive picture of the company.

In the middle of the internship, the interns had a presentation contest. The contest created an opportunity for us to discover more about the global role of HKEX through research and analysis and to develop our presentation skills. Giving a formal presentation in front of a hundred people, including senior executives, provided a unique and valuable

experience. In addition, I had a great time with my supervisor, who inspired me in many different ways. I learned to spend extra effort and be well prepared before every meeting so that progress could be made efficiently. I learned about the importance of collaboration, how each individual contributed to the team with his/her unique strength and profession and how we could learn from each other regardless of seniority. I really appreciated my supervisor's commitment to lifelong learning.

I gained far more from this internship than expected. I did not expect people to be so willing to give us guidance, and I did not expect such an amiable supervisor who would inspire me and teach me life lessons. I was also lucky enough to meet a lot of enthusiastic and crazy colleagues. Their laughter made me look forward to going to work. The work experience at HKEX was definitely one of my most enjoyable summer moments.

## EXCHANGE

Students may participate in student exchange programmes organized by CUHK. The University and Colleges offer more than 230 student exchange programmes. For details on the university-wide exchange programmes, please visit the homepage of the Office of Academic Links at <http://www.oal.cuhk.edu.hk>.

Some notable destinations of the university-wide exchange programmes are listed as follows:

Regions	University-wide exchange programmes
United States	<ul style="list-style-type: none"> <li>University of Washington</li> <li>University of Wisconsin-Madison</li> <li>University of Pennsylvania</li> </ul>
United Kingdom	<ul style="list-style-type: none"> <li>King's College London</li> <li>University of Aberdeen</li> <li>University of Cambridge</li> <li>London School of Economics</li> </ul>
Australia	<ul style="list-style-type: none"> <li>The University of Queensland</li> <li>The University of Melbourne</li> </ul>
Europe	<ul style="list-style-type: none"> <li>Universite Paris 1 Pantheon – Sorbonne</li> <li>Humboldt-Universität zu Berlin</li> <li>University of Helsinki</li> </ul>
China	<ul style="list-style-type: none"> <li>Tsinghua University</li> <li>Fudan University</li> </ul>
Japan	<ul style="list-style-type: none"> <li>Kyoto University</li> <li>Waseda University</li> </ul>
Singapore	<ul style="list-style-type: none"> <li>National University of Singapore</li> <li>Nanyang Technological University</li> </ul>
South Korea	<ul style="list-style-type: none"> <li>Seoul National University</li> <li>Ewha Womans University</li> </ul>
Taiwan	<ul style="list-style-type: none"> <li>National Tsing Hua University</li> </ul>

Academic year	2017-18 (as of September 2018)	2016-17	2015-16
Number of students participating in exchange programmes	15	18	12

## Exchange Sharing

### Chan Lok Tung

University of Essex, United Kingdom



I had an unforgettable experience during the exchange programme. I met people from different countries and visited places I had never been. I experienced the European culture by communicating with locals and sightseeing in Europe. I feel grateful to have had this opportunity.

In terms of academic insight, I took four courses at my host university, the University of Essex in the United Kingdom. These courses included Introduction to Philosophy, Marketing Management, Databases and Information Retrieval (Computer Science) and Ordinary Differential Equations (Mathematics).

Although philosophy and marketing are irrelevant to my major, I was interested in them and pleased to have the opportunity to learn about them.

In addition, I learned to be independent. In Hong Kong, my parents take care of me. I seldom do any housework and focus only on my studies. During the exchange programme, I had to take care of myself. Even dining out at school canteens was too expensive for me. Therefore, I decided to cook for myself. However, the nearest superstore required a 20-minute walk. Therefore, I went there only once a week. I had to buy food for the whole week. Moreover, I had to maintain a balanced diet. I learned a lot and realised it was demanding work for my mother to take care of my family.

Finally, I met people from different countries and enjoyed the cultural exchange experience. My flatmates came from the United States, Germany, Canada and the United Kingdom. They were friendly and helped me a lot. To make more friends, I joined the international mixer. The activity at the mixer required us to build structures with spaghetti and marshmallows. I also stayed in hostels and met a lot of people.

Travelling around the world has been my dream since I was small. Before this exchange programme, I never thought I could travel in Europe and view another part of the world. This exchange programme not only broadened my horizons, but also made me more mature. I have learned to take care of myself and to develop better problem-solving skills. When my parents were not nearby, I could not ask them to help immediately; I could only solve a problem by myself. I felt thankful to have the opportunity to join the exchange programme, as I got much more than I expected.

### Cheng Hei Ming

Lund University, Sweden



I experienced a very fruitful semester at Lund University in Sweden. The Mathematical Statistics courses at Lund University suited my academic needs unexpectedly well. During my time as an exchange student, I put aside some of the specific focuses of my major, such as investment strategy, and went back to the inevitable fundamentals: statistics and mathematics.

During my training at Lund University, I was introduced to non-parametric inference. I found that investigations in statistical convergence were crucial for different applications such as simulation techniques, confidence intervals of parameter estimates and statistical model fitting. I found that empirical distribution contributed a lot to survival analysis, actuarial science and non-parametric bootstrapping. Only through understanding the mathematics behind these areas can we ensure we are using the statistical tools correctly and in the right situation. By learning statistical inference, I was able to take several steps farther when I returned to my major.

I also took some courses that were highly related to my major: Monte-Carlo Simulation and Extreme Value Theory. The Monte-Carlo Simulation course covered the materials not taught in RMSC4001, such as the sequential importance sampling, Markov chain Monte-Carlo and bootstrap techniques. Although the course introduced the random number generation and variance reduction techniques in the beginning, most of the content was fresh to me. The Extreme Value Theory course was mostly about modelling extreme values following three different approaches, including the block maxima, threshold model and point process approaches, and the relations between their respective statistical distributions.

I also took some courses that were highly related to my major: Monte-Carlo Simulation and Extreme Value Theory. The Monte-Carlo Simulation course covered the materials not taught in RMSC4001, such as the sequential importance sampling, Markov chain Monte-Carlo and bootstrap techniques. Although the course introduced the random number generation and variance reduction techniques in the beginning, most of the content was fresh to me. The Extreme Value Theory course was mostly about modelling extreme values following three different approaches, including the block maxima, threshold model and point process approaches, and the relations between their respective statistical distributions.

Last but not least, I took an introductory Swedish course for international students at the beginning of the semester. I met friends from different countries there, and we all agreed that Swedish was a difficult language to learn.

### Alfred Chiu

Aston University, United Kingdom



I studied at the Business School of Aston University in Birmingham, England, United Kingdom. I studied five modules, which mainly focused on finance and programming. There were many types of lecture rooms at the University compared with our normal lecture rooms in Hong Kong. For example, some of the rooms had large tables with screens set up on them, and during lectures students sat around the tables and watched lecture notes or materials captured by a visualiser. I met a lot of new friends during my studies at Aston University; they came from around the world,

including Europe, Asia, North America and South America. The cultural exchange I experienced with them was valuable. One Austrian girl told me about her traditional festivals and food, and in return I taught her how to use chopsticks as a part of Chinese culture.

The experience was unforgettable for both my study life and my travels in Europe. Apart from the United Kingdom, I have travelled to 12 countries in Western and Central Europe, such as France, Germany, the Netherlands, Spain, the Czech Republic and Austria, with the cheap flight tickets available within Europe. This was the first time I had travelled to another country and arranged the flight tickets and accommodation by myself. The most unforgettable journey was the one I took to Sweden. I took a flight to Stockholm and then an overnight bus to the Swedish Lapland. The world is so amazing, and watching the weather conditions and solar wind activity of this natural phenomenon was a must.

This was my first time living in a foreign country by myself. During the six months, I learned to do a lot of things on my own, including laundry, cleaning my room and cooking. My cooking skills improved, and I was able to prepare several cuisines by myself! This brief report cannot fully describe my exchange life, but I can say that this semester was the most unforgettable one of my university life.

### Leung Ching Fung

University Brunei Darussalam, Brunei



This exchange programme was unique and meaningful. It provided lectures to inculcate me with Malaysian language, Arabian calligraphy, Brunei history and so on. I enjoyed the language course the most. Although Hong Kong people don't speak Malaysian, it is of the utmost importance when communicating with Malaysian and Bruneian people.

What made this programme special were the field trip and teambuilding session. After the morning lectures, student ambassadors usually brought us to some tourist attractions.

For example, we travelled to the water village, a habitat of different kinds of animals such as crocodiles, monkeys and eagles. Although the water village is a famous tourist attraction, Brunei doesn't exploit it, but endeavours to find a balance between attracting tourists and preserving the lives of wild animals. Therefore, the animals there live peacefully with humans.

Moreover, I learned more about Muslims and the culture of Brunei. Before I joined this programme, I had never spoken to Muslims because they looked mysterious, especially female Muslims, who wear scarves around their heads to conceal their hair. However, most of the citizens of Brunei are Muslim, and I found that they were very friendly and always willing to help others. Also, the Muslims stopped to pray every afternoon, regardless of where they were working or dining. There are many Muslim churches in Brunei, and anyone who enters the church must take off their shoes and wear long trousers. Women have to wear long coats to cover all parts of their bodies except their faces. Muslims have many rules to obey, but I think I can get along with Muslims easily after learning about their customs.

Last but not least, the most important things I acquired from this exchange were my new friends from different countries. During the programme, all of the participants stuck together all the time; it was like going back to high school. Although they were from different countries, they were always nice and friendly to others. At first, I was worried that the participants would only talk to people from the same country as them. In fact, they were talkative with everyone, regardless of what country you were from. We shared the customs of our countries, taught others about our languages and shared in the joy of doing so. In the future, I wish to travel overseas to extend my study or work, and this experience was useful and meaningful to me.



## Exchange Sharing

### Ken Poon

Universidad de Monterrey, Mexico



I participated in the University exchange programme organized by the Office of Academic Links of The Chinese University of Hong Kong. My destination was Mexico, where I spent four months on exchange and an additional month travelling.

After the start of the semester, I took a course in basic Spanish, learning the basic grammar, vocabulary and phrases to be able to have short conversations with others. Throughout the whole exchange period, I revisited the teaching materials and practised with my classmates and friends. I can proudly say that at the end of the semester I was able to communicate with others in Spanish. It was a tough process to transform from being illiterate in Spanish to reaching an elementary level. Knowledge of the language is priceless and will be useful for me for a lifetime.

I also took other courses at UDEM, such as Geopolitics. Studying at another university in a completely different environment a long way from home and learning about a new language and a distinct culture were fun experiences. Some of the courses required completing tasks as a group. Working with other exchange and indigenous students allowed me to better understand them. I observed their working styles, ways of thinking, attitudes towards different issues and most importantly their cultures during the cooperation. It was not easy to work together with people from diverse backgrounds.

In school, apart from studying, exchange students could participate in many activities. UDEM formed a committee called I-Links, which specialised in organizing events for the exchange students and offered aid if necessary. In September, I-Links organised the I-Fair. The exchange students set up a booth and displayed information about their own countries, allowing both the current exchange and indigenous students a glimpse at cultures from countries around the world. Food sharing and cultural events also took place. For example, a group of lovely Korean girls performed world-famous K-Pop dancing and singing, and the Viking warriors from Denmark recreated the scene of a bullfight. I set up a booth to introduce Hong Kong. Thankfully, the egg rolls I brought received very positive reviews. Time flew and January came. My exchange came to an end. The day I left my friends was unforgettable. I received much love and care during my trip.

### Sabrina So

University of Toronto, Canada



During my exchange study at University of Toronto, I studied survey modelling, probability and difference distributions in Statistics and linear algebra in Mathematics. I also participated in various activities organised by different societies at the university, where I met lots of friends from all over the world who greatly enriched my exchange life.

Apart from my study, this exchange experience helped me to be more independent and develop a clearer vision of my future and life goals. During the exchange, I lived in a townhouse with three roommates. Everyone had her own style of living, and we needed

to learn to accommodate each other's habits to live together. This strengthened my emotions and care for others, which are important for one's personal development.

As a fourth-year student, I can feel frustrated about my future career path. The exchange period provided me with a relaxing environment to experience more, learn more and meet more people. In my relaxing, self-motivated and self-managed exchange life, I came to understand more about myself and discover the goals that I now work hard to achieve.

I express my sincere gratitude for the support from the Department and the sponsorship for my exchange study. This exchange did not merely give me a chance to explore the world; it also equipped me with personality and strength in the midst of hardship. It enriched my life and those of others at the same time. During the exchange, I gave advice and help to others. One day in the future, I will give what I have received to other students so that they can also have such a precious experience.

## Extra-curricular Activities

### Competition Highlights



### Ivan Leung

1st Runner-up in the Hong Kong Regional Final of the Global Management Challenge

The Global Management Challenge is the largest strategy and management competition in the world. Participants are required to make various numerical decisions for the daily operations of a simulated company within a time limit. This valuable experience teaches participants about how operational procedures and decision-making processes can affect a company's gains and losses. Using the skills and techniques learned in our undergraduate studies, our team analysed financial statements, studied opponents' strategies and projected future profits and losses. We overcame many difficulties, large and small, and I am proud of our excellent performance.



### Jack Sung

Champion in the Hong Kong Tertiary Students Virtual Securities Investment Contest

The Bank of China (Hong Kong) held the Hong Kong Tertiary Students Virtual Securities Investment Contest. Participants were given HK\$1 million and RMB1 million to trade for stocks on a virtual securities investment platform. The contest taught me that choosing investments is a tough job. Investors must thoroughly study both the market and securities every day before making decisions.

I would like to express my heartfelt gratitude to the Risk Management Science Programme and BOCHK for providing me with theoretical and practical training in investment practices. I sincerely hope that more students from our programme participate in activities organised by the industry. I am certain these practical and fruitful experiences will equip our students for their future careers.

## Alumni Sharing



**Carlos Au-yeung**  
B.Sc. in RMSC 2013  
J.P. Morgan

Recent economic instability has highlighted the growing importance of risk control in financial institutions and regulatory agencies. The Risk Management Science Programme offers comprehensive training in risk analysis and is very helpful for students who want to pursue a career in the financial industry. The programme also provides students with a career counselling service, internships and research opportunities, ensuring that students can make informed decisions about their career directions after graduation.



**Mandy Chui**  
B.Sc. in RMSC 2009  
J.P. Morgan London

The Risk Management Science programme is perfect for those who aspire to pursue a career in finance or further their studies in the analytical field - it offers a comprehensive curriculum that covers multiple areas including finance, economics, mathematics, statistics and computer science. Many of the risk management concepts and programming knowledge I learnt from the courses are still at the core of my role in market risk management today; and although the programme was challenging, the intense analytical training has enabled me to adapt to the ever changing environment in the banking industry.

There will be plenty of internship opportunities - thanks to the faculty's ongoing effort - for you to gain practical work experience and get a flavour of what might be of interest to you; and that extra bit of business sense and communication skills would certainly appeal to potential employers and help you stand out from a talented crowd of graduates.

If you need any advice or assistance during your studies, you will have a whole team of kind and enthusiastic teaching staff who are ready to support you and amazing fellow classmates to study with. I embraced the many opportunities I was given during my time at CUHK and will be forever grateful.



**Vincy Chen**  
B.Sc. in RMSC 2015  
Goldman Sachs

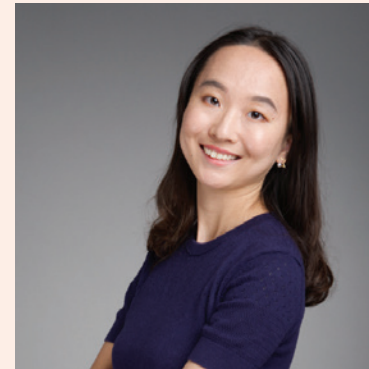
The Risk Management Science Programme provided intensive qualitative and quantitative training in risk analysis, which is highly valued in light of the volatile financial market and tightening regulatory controls.

The programme was challenging but certainly rewarding for those who took the opportunity to develop their abilities. It provided me with analytical skills and the appropriate mindset to approach problems and find solutions.



**Keith Chan**  
B.Sc. in RMSC 2013,  
M. Phil. in RMSC 2015  
Harvard University

I obtained Bachelor's and Master's degrees in Risk Management Science. This programme trained me as a statistician, enabling me to translate financial risk problems into mathematical problems and solve them using data. I am particularly interested in the theoretical part of statistical analysis, which motivated me to pursue a PhD in Statistics at Harvard University.



**Yiran Huang**  
B.Sc. in RMSC 2015  
UBS

I graduated from RMSC Program in Dec 2015 and started my career as a data analyst in the consulting industry. Then I joined UBS in Jul 2016 as a Graduate Trainee in Group Risk. The program offered me with many rotation opportunities in the risk control function of Investment Bank, Wealth Management and Asset Management. The solid quantitative skills and extensive financial knowledge I learnt from RMSC Program have enabled me to succeed in all of the rotations through which I formed a comprehensive view of UBS Group. After the trainee program, I chose to become a product developer and manager in UBS Asset Management. An important part of my job is to perform competitor analysis and I can leverage on my strong data analytics foundation thanks to the statistics curriculum provided by RMSC. To sum up, RMSC Program equipped me with broad knowledge and the rigorous thinking ability which has empowered me to freely navigate various functions and businesses within the financial industry.



**Esther Tsang**  
B.Sc. in RMSC 2006  
HSBC New York

To build a successful career in the multifaceted world of risk management, particularly in the current business environment, a solid academic background in a well-regarded programme is critical. The Risk Management Science Programme combines academic theory with practical business to create a learning experience that is both challenging and stimulating. I particularly enjoyed the discussions with our professors, who constantly supported me during the programme and after graduation.

# Risk Management Science Programme

## 風險管理科學課程



Address: Department of Statistics,  
The Chinese University of Hong Kong,  
Shatin, New Territories, Hong Kong



Phone: (852) 3943 7931  
Fax: (852) 2603 5188



E-mail: [statdept@cuhk.edu.hk](mailto:statdept@cuhk.edu.hk)



Homepage: [www.sta.cuhk.edu.hk/RMSC](http://www.sta.cuhk.edu.hk/RMSC)  
Facebook: [www.facebook.com/cuhkrmsc](http://www.facebook.com/cuhkrmsc)



香港中文大學理學院  
**FACULTY OF SCIENCE**  
THE CHINESE UNIVERSITY OF HONG KONG