

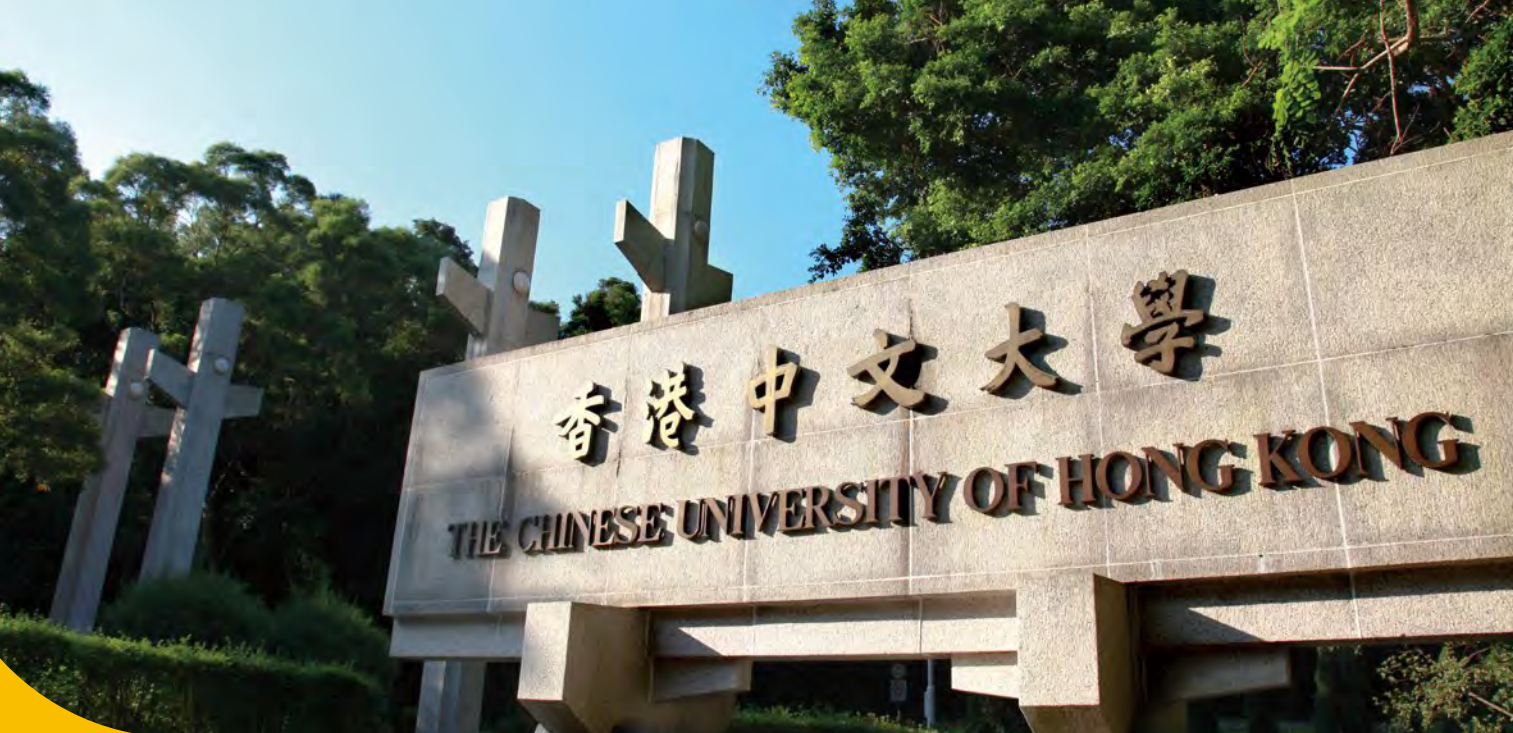
LOOK
FORWARD
看·建未來



CUHK
BUSINESS SCHOOL

2022-2023

BBA in Insurance, Financial and Actuarial Analysis



INSURANCE, FINANCIAL AND ACTUARIAL ANALYSIS (IFAA)

Novel investment and insurance products make stability vital in the modern financial security system. The ever-progressing field of actuarial science is a major contributor to this stability. Insurance experts today are skilled mathematicians who apply their knowledge to business in

new ways, effectively managing the risk of products related to mortality, morbidity, casualty, pensions and investments. The IFAA Programme at CUHK has a stellar record of preparing students for bright careers as actuaries, financial analysts, risk managers and insurance professionals.

OVERVIEW

Offered by the Department of Finance and unique in Hong Kong, the progressive BBA Programme in Insurance, Financial and Actuarial Analysis provides comprehensive training in all aspects of actuarial science and insurance company management. The IFAA curriculum goes beyond the study of theory to address broad practical business needs. With structured curriculum patterns and internship opportunities, IFAA facilitates essential business exposure to enhance your career preparedness. Through our courses, you will become familiar with the material for professional examinations administered by the Society of Actuaries (SOA) in the United States and the Institute and Faculty of Actuaries (IFoA) in the United Kingdom. IFAA is recognised by SOA as a Centre of Actuarial Excellence, the highest

level of recognition offered to universities. While rooted in Hong Kong's institutional environment, the programme will give you frequent exposure to broader international issues and practices. IFAA has an outstanding reputation and strong network amongst well-known insurance companies in the region, who actively offer training and internships to IFAA students. The programme also boasts a strong employment record, with more than half of our alumni earning actuarial credentials and more than 60% of our graduates successfully securing actuarial positions in multinational insurance companies. Other graduates go on to work in banks, business consulting firms, and other financial institutions.

YOUR DEVELOPMENT

By the time you complete the IFAA Programme, you should be familiar with the purpose, design and application of insurance products, finance and investment tools, as well as accounting, economics, marketing and management, mathematics, statistics and actuarial science. You can also expect to possess the following:

- Solid business communication skills;
- Effective analytical and problem-solving insight;
- Ability to apply learned business knowledge in a corporate environment;
- Confidence to propose innovative strategies in a global context;
- Awareness of current ethical issues in today's business world; and
- Specific knowledge of actuarial science and insurance, including life and non-life insurance product design, pricing, and risk management.



CURRICULUM

Programme Structure

IFAA elementary courses focus on fundamental business, economics, mathematics and statistics, laying the necessary groundwork for the advanced courses. Subsequent insurance and finance courses introduce you to insurance products, financial markets, derivative securities and the basic principles of financial risk management.

The specialised actuarial science courses in the programme cover the mathematics of pricing, valuation and hedging of a variety of products. Material included in professional actuarial exams are covered in our syllabi, giving you a confident start to your career as an actuary.

Required Courses

ACCT 1111	Foundations in Financial Accounting	FINA 3210	Risk Management and Insurance
ACCT 2121	Introductory Management Accounting	FINA 3220	Life Contingencies I
DSME 1030	Economics for Business Studies I	FINA 3230	Life and Health Insurance
DSME 1040	Economics for Business Studies II	FINA 3240	Corporate Property and Liability Insurance
FINA 2010	Financial Management	FINA 3250	Derivatives for Actuaries I
FINA 2200	Introduction to Actuarial Science	FINA 3290	Linear Models for Actuaries
FINA 2220	Quantitative Methods for Actuarial Analysis I	FINA 4210	Life Contingencies II
FINA 2230	Quantitative Methods for Actuarial Analysis II	MATH 1010	University Mathematics
FINA 3080	Investment Analysis and Portfolio Management	MATH 1540	University Mathematics for Financial Studies
		MGNT 1020	Management

Recommended Elective Courses

ACCT 3151	Business Law	FINA 4220	Non-life Actuarial Models
CSCI 1580	Visual Programming	FINA 4250	Applications of Risk Models
FINA 3010	Financial Markets	FINA 4270	Research Project in Insurance, Financial and Actuarial Analysis
FINA 3070	Corporate Finance: Theory and Practice	FINA 4280	Derivatives for Actuaries II
FINA 3280	Insurance Company Operations and Management	FINA 4290	Actuarial Internship
FINA 3295	Advanced Statistical Modelling for Insurance and Finance	MKTG 2010	Marketing Management
FINA 4120	Fixed Income Securities Analysis		

Credits Required for Successful Completion of Major

78-81 credits including compulsory courses, elective courses and capstone course
Besides major requirements, students are also required to satisfy all requirements prescribed by the University.

Example Course Patterns

Example 1 (with internship):

Year	Recommended Course Pattern	Units
1	Term 1 ACCT1111, DSME1030, MATH1530 or MATH1010	9
	Term 2 DSME1040, FINA2010, 2200, MATH1010 (if not taken)	9-12
2	Term 1 FINA2220, 3210, MATH1540	9
	Term 2 ACCT2121, FINA2230, 3080, 3220, 3230	15
3	Term 1 FINA3240, 3290, 4210 and one elective course	12
	Term 2 Actuarial Internship	
4	Term 1 Four elective courses	12
	Term 2 FINA3250, MGNT1020 and two elective courses	12
Total:		78-81

Example 2 (with both exchange and internship):

Year	Recommended Course Pattern	Units
1	Term 1 ACCT1111, DSME1030, MATH1530 or MATH1010	9
	Term 2 DSME1040, FINA2010, 2200, MATH1010 (if not taken)	9-12
2	Term 1 FINA2220, 3210, MATH1540	9
	Term 2 ACCT2121, FINA2230, 3080, 3220, 3230	15
3	Term 1 FINA3240, 3290, 4210 and one elective course	12
	Term 2 Overseas Exchange/Actuarial Internship	
4	Term 1 Actuarial Internship/Overseas Exchange	
	Term 2 FINA3250 and three elective courses	12
5	Term 1 MGNT1020 and three elective courses	12
Total:		78-81

You can also take a minor outside of the IFAA programme to further broaden your knowledge.

GROWTH OPPORTUNITIES

Internships

IFAA offers two internship programmes:

1. Actuarial Training Programme

IFAA pioneered the Actuarial Training Programme to place students in the actuarial departments of insurance companies and related business entities for at least six months. Almost all of our students complete a six-month internship during their third or fourth year, augmenting their classroom learning by working in a real business environment. Companies that have participated in our training programme include:

AIA Company Limited	HSBC Insurance (Asia) Limited
Blue Insurance Limited	Manulife (International) Limited
AXA China Region Insurance Company Limited	Mercer
BOC Group Life Assurance Company Limited	MetLife Limited
Chubb Life Insurance Company Limited	Milliman Limited
CIGNA Worldwide Life Insurance Company Limited	Munich Re Hong Kong Branch
Deloitte Advisory (Hong Kong) Limited	Prudential Hong Kong Limited
Ernst & Young Advisory Services Limited	RGA Reinsurance Company
FTLife Insurance Company Limited	Sun Life Hong Kong Limited
FWD Life Insurance Company (Bermuda) Limited	Swiss Reinsurance Company Limited

2. Summer Internship Programme

IFAA students also pursue internship opportunities in various business fields, such as business consulting, insurance management, marketing and accounting. The potential to explore a different side of the business allows you to experience the insurance industry from different angles, expanding your knowledge and future career options. Our students have completed internships with a number of leading companies, some of which exclusively offer IFAA internships, including:

AIA Company Limited	Deloitte Advisory (Hong Kong) Limited
AXA China Region Insurance Company Limited	Ernst & Young Advisory Services Limited
BOC Group Life Assurance Company Limited	Guy Carpenter Asia Pacific
China Life Insurance (Overseas) Company Limited	MetLife Limited
CIGNA Worldwide Life Insurance Company Limited	Prudential Hong Kong Limited

Case Competitions

During your IFAA study you will have the chance to participate in case competitions offered by financial institutions, actuarial organisations and business schools around the world. Working with teammates, you will hone your predictive analytics skills by solving global business problems in a realistic setting. IFAA students are known to be competitive contenders in these competitions, with one of our teams bringing home the top prize in the 2017 SOA Student Research Case Study Challenge.



Tammy CHEUNG

Regional Actuarial Services, Asia,
Manulife Financial Asia Limited (2017)

“It was a valuable experience to be able to work in Manulife Asia for a half-year internship. I was working in the regional office and my main responsibility was to assist in model development. I had learnt AXIS modelling from scratch during the six months, and I became more curious to acquire more new knowledge related to work so as to gain a better understanding of how different teams work together. Working in the regional office allowed me to meet people from different countries. I used to work with colleagues from places like Indonesia, Canada and the Philippines. Having the chance to cooperate with people with different background had enhanced my communication skills and my adaptability to different working style.

The 6-month internship gave me a glimpse of the operation in an insurance company. This is definitely an essential learning experience for my university life and is important for my future career planning.”

Michael NG

Group Corporate Actuarial Department,
AIA Company Limited (2017)

“The half-year internship at AIA Group was undoubtedly a fruitful experience to me.

Being an actuarial intern in the Actuarial Solution Architecture – Solvency team, I was granted the opportunity to apply the knowledge and techniques in real-life business practices. I was assigned to assist the bi-annual economic capital assessment for assets and liabilities valuation. The challenges I faced equipped me with the sense towards the validity of actuarial assumptions applied. On top of that, the task of sensitivity testing, which required cooperation with the risk and modelling team, had given me various opportunities to perfect my skills in communication and data analysis.

I would like to take this chance to express my sincere thanks to my colleagues and supervisors for their guidance and support. Quote a spirit I learnt as a closing:

‘The more solutions you have to a problem, the easier to spot any mistake.’”



CONNECT WITH THE WORLD

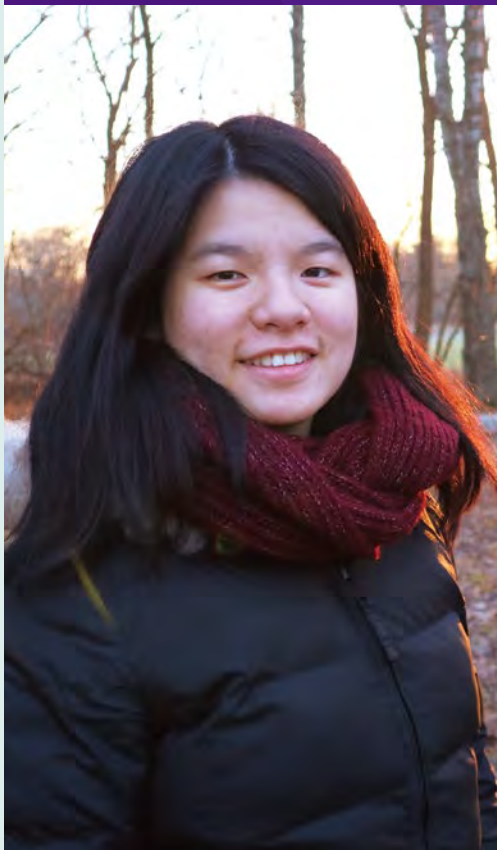
International Exposure

As the world becomes increasingly interconnected, professionals with a keen global business perspective will be best positioned for success. IFAA provides rich opportunities for you to develop world-wide connections and learn about different cultures, communication styles and unique business practices.

- **More than 60% of our students go on exchange for at least one term.**
- **CUHK offers more than 230 student exchange programmes including university-wide, college, faculty and departmental exchanges.**

IFAA students have gone on summer exchange to a number of renowned international universities, including:

- Copenhagen Business School, Denmark
- Erasmus University Rotterdam, Netherlands
- Georgetown University, The United States
- Harvard University, The United States
- Institut Mines-Télécom Business School, France
- Korea University, Korea
- La Trobe University, Australia
- Lund University, Sweden
- Maastricht University, Netherlands
- McGill University, Canada
- Osaka University, Japan
- Queen's University, Canada
- University of California, Berkeley, The United States
- University of Economics, Prague, Czech Republic
- University of Manchester, The United Kingdom
- University of St. Gallen, Switzerland
- University of Toronto, Canada
- Vienna University of Economics and Business, Austria
- Washington University in St. Louis, The United States



Michelle KUAN
Exchange Student in
Erasmus University Rotterdam in 2017

“I have always wanted to live in a place outside of Hong Kong, and my exchange journey in Rotterdam has given me a marvellous opportunity to immerse myself into a different culture. There are millions of advantages of going on exchange, for instance, to experience a new learning environment, to step out of your comfort zone, to meet people from all over the world and most importantly to travel.

I have met a lot of friends from many countries, and it is amazing to see that even all of us are from different backgrounds, everyone is willing to share their experience and to appreciate others. We went to classes together, went to picnic, attended local festivals and explored Europe together, making my journey a fruitful and precious one!

Other than that, I have deepened my understanding of who I am. Away from home, this was a time for me to organise myself and make my own decision. This required a lot of courage, self-management and self-understanding, in which I have improved throughout the 6 months.

Exchange is an invaluable experience and I wish I can be there one more time!”

Sharon TANG
Exchange Student in
Institut Mines-Télécom Business School in 2017

“Being immersed in a city where English is not commonly known, there were certainly times I felt helpless and lost. But more importantly it prompted me to step out of my comfort zone and take the initiation to ask for help and practise my French communication skills, which can hardly be achieved in Hong Kong.

The most memorable experience during my exchange was to participate in the Language Tandem Programme organised by the school. I was grouped with another Chinese student and a local French student. We met up weekly, taught each other our own native language, and tried using them for cultural exchange. Through these sessions, we talked about our lifestyles and views towards different aspects of life, including religion and marriage. This precious opportunity not only enhanced my language skills, but also enabled me to have a deeper insight of the values of people across the continents.

The five months studying abroad in France has no doubt been an intellectually-rewarding experience which will benefit me for a lifetime.”



IMAGINE YOUR FUTURE

Career Prospects

As an IFAA graduate you will be a competitive candidate for a number business careers, and be most ideally suited for careers in banks, consulting firms, insurance firms and a number of key fields within the financial services industry.



Actuaries

Graduates who aspire to become actuaries will be well-equipped for work at insurance companies, consulting firms, government agencies, banks, investment firms, the employee benefits department of large corporation or any business that has substantial financial risk to manage.

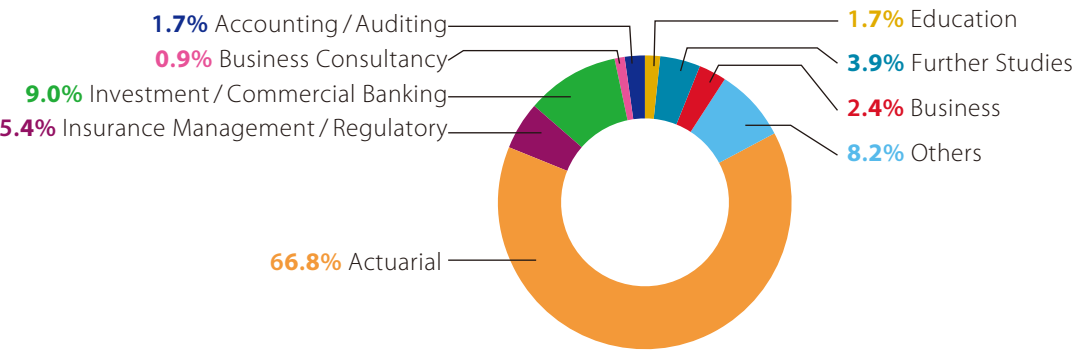
Insurance Professionals

IFAA graduates can pursue professional careers in insurance as underwriters, insurance adjusters, examiners and risk managers.

Financial Analysts

As an IFAA student, you will receive training in financial markets, modelling and investments, and will be well-positioned for a career as a financial analyst in an investment firm.

Distribution of Graduates by Industry (2005 - 2021)



Employers

AIA Company Limited
AXA China Region Insurance Company Limited
Bloomberg
BNP Paribas Hong Kong Branch
Chubb Insurance Hong Kong Limited
Deloitte Advisory (Hong Kong) Limited
Deutsche Bank
Ernst & Young Advisory Services Limited
FTLife Insurance Company Limited
Fubon Life
FWD Life Insurance Company (Bermuda) Limited
Hang Seng Bank

Hannover Reinsurance
HSBC
HSBC Insurance (Asia) Limited
KPMG Advisory
Manulife (International) Limited
MetLife Asia Regional
Nomura International Inc.
Prudential Hong Kong Limited
RGA Reinsurance (Hong Kong and Southeast Asia)
Sun Life Hong Kong
Swiss Reinsurance
UBS AG



Kelton LAM
2005 Graduate

“It has been more than 10 years since I graduated from the beautiful campus (I did not feel how beautiful it was when I was at school, but started to realise since I graduated). I went through the traditional actuarial pathway by learning and contributing in insurance companies and earning the qualification from the Society of Actuaries (SOA). Contrary to the perception by many people on the actuarial profession (and its people) as dull and boring, our lives, though challenging, are immensely rewarding. Many exciting opportunities popped up in my career, with the most remarkable one being a two-year assignment to Tokyo. The long working hours coupled with the endless leisure trips was truly an experience of ‘work hard, play hard’! As insurance is a people business, I have now taken up another opportunity to work in product development, leaving the Excel spreadsheets behind while moving closer to the front-line of the insurance business.”



Benson YEUNG
2011 Graduate

“After obtaining my fellowship a few years after my graduation, I decided to spend some time developing my interest in programming by working in a software company. It was a rewarding experience to add to my actuarial skill set — working with other programmers on different projects involves sophisticated coding skills. The experience in developing websites and apps definitely helps my career as actuaries often work with Excel VBA and professional actuarial modelling softwares.

Before getting back to the actuarial industry, I also had a chance to perform music with my friend on streets (known as busking), playing the piano part. Busking is such an enjoyable and unforgettable experience (earning cheers and a few bucks from pedestrians). I am so glad to be able to develop my other hobbies besides working as an actuary. A large part of that relies on the solid skill set equipped through my work experience and the IFAA programme.”



Chloe LAU
2018 Graduate

“Four (and a half) years at CUHK IFAA passed in the blink of an eye. It may sound cliché – but it is the thought that popped up in my mind when asked about my university life. Looking back, university life has given me a lot: lectures gave theoretical knowledge, extra-curricular activities gave friendship, exchange gave exposure, and internship gave experience. On a side note, it is extremely satisfying to apply textbook knowledge on your actual work – trust me.

I am one and half year into working full-time right now. After graduation, I joined an InsurTech startup. It is definitely not a ‘traditional’ career path but I enjoyed the diversity in my work. As suggested unanimously by friends and faculty staffs, ‘being happy is the most important when choosing a job.’

I am grateful for everything in these four years. Although the memories include difficult homework, sleepless nights and endless actuarial exams, larger part of them are good friends, inside jokes, and valuable experience. The IFAA programme has given me all these memories which I certainly treasure.”

Accreditation

The IFAA Programme has been recognised by the Society of Actuaries (SOA) in the United States as a Centre of Actuarial Excellence since 2011. We are one of only 33 universities in the world with this recognition, the highest award bestowed upon an actuarial programme. The SOA recognises IFAA's excellence in a wide range of areas including curriculum design, faculty qualifications, connection with the insurance industry and graduate prospects:



“Fully integrated business courses, close to 100% participation in its internship and co-op programme and a strong connection to the industry are among the exceptional qualities of the CUHK actuarial science programme, and are instrumental in positioning students for success.”

— CAE Evaluation Committee (CEC), Society of Actuaries

Professional Examinations

To become an actuary, you must follow an educational pathway designed by one of the professional actuarial bodies. Most employers in Hong Kong require graduates to at least partially complete the pathway and have relevant internship or work experience in an actuarial role.

The educational pathway leading to a Fellow of the Society of Actuaries (SOA) begins with two components: associate examinations and Validation by Educational Experience (VEE). These are followed by e-Learning modules, projects, fellow examinations and professionalism courses. The IFAA courses below are relevant to the current SOA associate examinations. IFAA graduates typically pass most, if not all SOA required associate examinations, and are considered highly marketable to employers.

SOA Associate -Level Exam	Relevant Course(s)
Financial Mathematics	FINA 2200
Probability	FINA 2220
Investment and Financial Markets	FINA 3070, FINA 3080, FINA 3250
Long-term Actuarial Mathematics	FINA 3220, FINA 4210, FINA 4250
Short-term Actuarial Mathematics	FINA 3240, FINA 4220
Statistics for Risk Modelling	FINA 3290, FINA 3295

Required knowledge of economics, accounting, finance and mathematical statistics in the VEE component is fulfilled by good performance in relevant validated courses taken at qualified universities. CUHK offers such SOA validated courses, giving IFAA students an advantage over graduates from other programmes.

SOA VEE Area	Courses Offered for Validation
Economics	DSME 1030, DSME 1040
Accounting and Finance	ACCT 1111, FINA 2010
Mathematical Statistics	FINA 2230

IFAA
Qualified
Actuaries





STUDENT LIFE

IFAA students hail from various countries around the globe. Your fellow classmates bring with them a wealth of unique knowledge and expertise that will enrich your shared experience in the programme.

218

CURRENT STUDENTS

765

CURRENT ALUMNI

As of Sept 2020

Society of Insurance, Financial and Actuarial Analysis (SIFA)

SIFA, the official student organisation of the IFAA programme, aims to unite IFAA students and strengthen their professional image. SIFA promotes the IFAA Programme within and outside of CUHK, sponsoring activities and gatherings that expose students to a broad array of dynamic business and communication skills.



ADMISSIONS REQUIREMENTS

JUPAS Students

Local students applying on the strength of their Hong Kong Diploma of Secondary Education (HKDSE) Examination should apply through JUPAS.

JUPAS code: **JS4238**

Minimum Entrance Requirements

Level 3 in Chinese Language

Level 3 in English Language

Level 5 in Mathematics*

Level 2 in Liberal Studies

Level 3 in any one New Senior Secondary elective subject 1

Level 3 in any one New Senior Secondary elective subject 2 or Mathematics (Extended Part) Module I or Module II*.

* Mathematics (Extended Part) Module I or II at Level 5 is required if Mathematics (Compulsory Part) at Level 3 or 4 is obtained.

Admissions will be based on the "Best 5 Principle" with the inclusion of (1) English Language and (2) at least one best subject of Mathematics (Compulsory Part), Mathematics (Extended Part) Module I or II.

Non-JUPAS & International Students

For details regarding admission requirements for non-JUPAS and international students, including students from Mainland China, please contact CUHK Office of Admissions and Financial Aid or visit www.oafa.cuhk.edu.hk/.

We consider applicants on a case-by-case basis, taking into account extra-curricular activities and community service. Applicants should be aware that due to the intense quantitative nature of our programme, we expect students to have strong mathematics skills.

SCHOLARSHIP OPPORTUNITIES

Since 2004, the Hong Kong Federation of Insurers Educational Trust has provided scholarships to CUHK undergraduate students majoring in Insurance, Financial and Actuarial Analysis, as a way to support tertiary insurance education in the city.

CUHK also provides university-wide scholarships and college scholarships to Business School students. The following are examples of some of the scholarships our students have received:

- Cheung Chuk Shan Scholarship
- Chung Chi Admission Scholarship
- CUHK Golden Jubilee Scholarship for Outgoing Exchange Students
- CW Chu Foundation Scholarship, CW Chu College
- HKSAR Government Scholarship
- Kunkle and Pommerenke Grand Admission Scholarship
- Morningside College Scholarship
- Shaw Admission Scholarship
- Talent Development Scholarship
- Wu Yee Sun College Academic Scholarship





IFAA ADVISORY COMMITTEE

IFAA's curriculum development and intended learning outcomes are guided and regularly reviewed by the IFAA Advisory Committee, comprised of prominent insurance and business executives. The Committee provides high-level steering for the programme and advice on the quality and relevance of course content. A list of our current advisory committee members and their associations can be found on the following page.



Chairman

Mr. Kevin LEE

Members

Mr. Roddy ANDERSON
Chief Executive and Local Controller
Hong Kong Branch
Lloyds Banking Group
Scottish Widows Limited

Mr. Paul CARRETT
Chief Investment Officer
Pacific Century Group

Mrs Estella S F CHIU
Non-Executive Director
HKMC Insurance

Dr. J Peter DURAN
Group Senior Actuary
AIA Group Limited

Mr. Sai-Cheong FOONG
Group Chief Actuary
AIA Group Limited

Ms. Cathy HWANG
Principal & Consulting Actuary
Milliman Limited

Mr. Lawrence LAI
Appointed Actuary
HKMC Annuity Limited

Mr. Kelton LAM
Executive Director, Business
Development Actuary
RGA Reinsurance Company
Hong Kong Branch

Mr. Stuart LECKIE, OBE, JP
Chairman
Stirling Finance Ltd.

Ms. Christie LEE
Senior Director, Analytics
A.M. Best Asia-Pacific Limited

Mr. Tak LEE
General Manager,
Structured Solutions, Life &
Health Greater China,
Munich Re, Hong Kong

Ms. Yee Nin LEE

Dr. Sim Kheng NG
Chief Financial Officer
Prudential Assurance Malaysia Berhad

Mr. Jeremy PORTER
Chief Risk Officer
AXA Hong Kong

Mr. Ellick TSUI
Chief Financial Officer
FTLife Insurance
Company Limited

Mr. Billy WONG
Executive Director
Gain Miles Group

Mr. Whitman WU

Ms. Gabriella YEE
Executive Director (Policy)
Mandatory Provident Fund
Schemes Authority

Mr. Jonathan ZHAO
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Asia - Pacific Financial Services
Strategy and Transaction
Services
Ernst & Young

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The Chinese University of Hong Kong



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IFAA Website

