



ACTUARIAL SOCIETY  
of  
H O N G K O N G  
香 港 精 算 學 會

# Introduction to the Actuarial Profession

## 精算師

### What does an Actuary do?

Actuaries put a price tag on future risks. Actuaries have been called financial engineers and social mathematicians because their unique combination of analytical and business skills helps to solve a growing variety of financial and social problems.

Actuaries make financial senses of the future. An actuary applies mathematical models to problems of insurance and finance. To be more specific, actuaries improve financial decision making by developing models to evaluate the current financial implications of uncertain future events.

An actuary is a professional and, in giving advice, must always act with integrity, due diligence, competence and in the interest of all parties affected by the professional advice. The actuarial profession is highly respected and offers a wide variety of career opportunities, immense work satisfaction and high earnings.

In addition to the major traditional work areas, there is a growing demand for actuarial services in health insurance, risk management and the financial services industry, of which banking is just one part.

Opportunities for actuaries are also opening up in such diverse areas as education, the environment and climate change, e-commerce, public infrastructure and genetics. The Hong Kong Government also employs actuaries in order to supervise the financial services industry. As we move to an increasingly globalised society, more non-traditional roles are likely to open up to the actuarial profession.



### Areas of Work

Actuaries are in demand in many different types of organisation, but these are the main areas of work:

- **Life Assurance**  
These companies provide life assurance, savings, pensions, and other financial services to enable customers to safeguard their long-term financial security. This includes maintaining an income after retirement or providing for dependants if they die prematurely. Actuaries design, price and value these products. Actuaries are also vital to financial management and in developing strategies which ensure customers get a fair deal.
- **Actuarial Consultancy**  
This involves advising organisations on all aspects of employee benefits, especially designing, calculating contributions and developing an investment strategy to meet payments in pension schemes. Actuarial consultants also have to explain these complex issues clearly. Actuarial consultants also advise insurance companies on all aspects of their business and especially mergers and acquisitions.
- **General Insurance**  
A feature of the general insurance business today - fire, accident, motor vehicle, workers' compensation - is the growing contribution made by actuaries. Their analytical and statistical training enables the application of sound theory to the assessment of the impact of changing conditions on the financial viability of general insurance products and the reserves to be held for future claims.



### Who should consider an Actuarial Profession?

Prospective students need advanced mathematical skills and normally have a university degree qualification which could be in any discipline. Whilst everyone who qualifies as an actuary has his or her own qualities and characteristics, most will possess several of the following skills and talents:

- Strong mathematical skills
- Self-motivation, determination and commitment
- Keen analytical and project management skills
- Ability to solve problems
- Solid communication skills (oral and written)
- Good business sense

# How to become an Actuary?

You need to pass a series of professional examinations to qualify as an actuary. You will be studying subjects like Financial Mathematics, Stochastic Modelling, Investment and Asset Management, Life Insurance, etc. It will usually require four to seven years to qualify as an actuary. Your employer will support you in some or all of the following ways - paying for correspondence courses, providing study leave and providing you with a mentor. An increasingly popular option is to take an actuarial science degree course that gives exemption from some of the examination subjects in particular organisations before joining an employer to complete the remaining examinations.



Students can take actuarial professional examinations with one of the following examining organisations:

Actuaries Institute Australia

<http://www.actuaries.asn.au>

Casualty Actuarial Society (US)

<http://www.casact.org>

Institute and Faculty of Actuaries (UK)

<http://www.actuaries.org.uk>

Society of Actuaries (US)

<http://www.soa.org>

Your hard-earned professional qualification and achievement is recognised throughout the business world.

## Career Options

- Asset / Investment Consultant
- Chief Actuary
- Chief Financial Officer
- Life Insurance Actuary
- Management Consultant
- Pensions Actuary
- Risk Manager

## Actuarial Employers

- Accounting Firms
- Actuarial Consulting Firms
- Health Insurance Companies
- Life Insurance Companies
- Banks and Investment Banks
- Universities
- Fund Managers
- Government

## Actuarial Society of Hong Kong

The Actuarial Society of Hong Kong (ASHK) represents the actuarial profession in Hong Kong. It has a mission to represent, develop and inspire the actuarial profession in Hong Kong to serve the public interest.

For instance, Young Actuaries Scheme has been introduced offering support to university students and young members who are at the beginning stage of their careers through various membership services like young actuaries advertisement service, mentorship programme, soft skill development workshop, actuarial career experience sharing and networking events.

For more information on the ASHK, please visit the website at [www.actuaries.org.hk](http://www.actuaries.org.hk).

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