數學、統計及保險學系
DEPARTMENT OF MATHEMATICS, STATISTICS AND INSURANCE
香港恒生大學
THE HANG SENG UNIVERSITY OF HONG KONG

Master of Science in
Risk Analytics
風險分析理學碩士

Master of Science in
Risk Analytics (MSc-RA)
风险分析理学硕士

Programme Overview 课程特色

In a rapidly changing world, risks are more prevalent than ever. It is therefore important to develop a proper mindset to analyze them and hence effectively control the potential loss to an acceptable level. The Master of Science in Risk Analytics (MSc-RA) programme is specifically designed for nurturing talents with the relevant skillsets. The Programme aims to:

- provide advanced knowledge in data analytics and risk management
- polish students' ability to deal with complex real-life risk-related problems with appropriate data analytics tools
- nurture competent and ethical professionals in various disciplines in financial and public sectors

当今世界瞬息万变，风险比以往任何时候都更加常见。因此，培养分析风险的合适思维并由此将潜在损失控制在可承受的范围便显得尤为重要。风险分析理学硕士课程的设计初衷正是为了培养具有相关技能的人才。该课程致力于：

- 教授数据分析及风险管理领域的进阶知识
- 锻炼学生使用合适的数据分析工具，处理现实情境中复杂的风险相关问题的能力
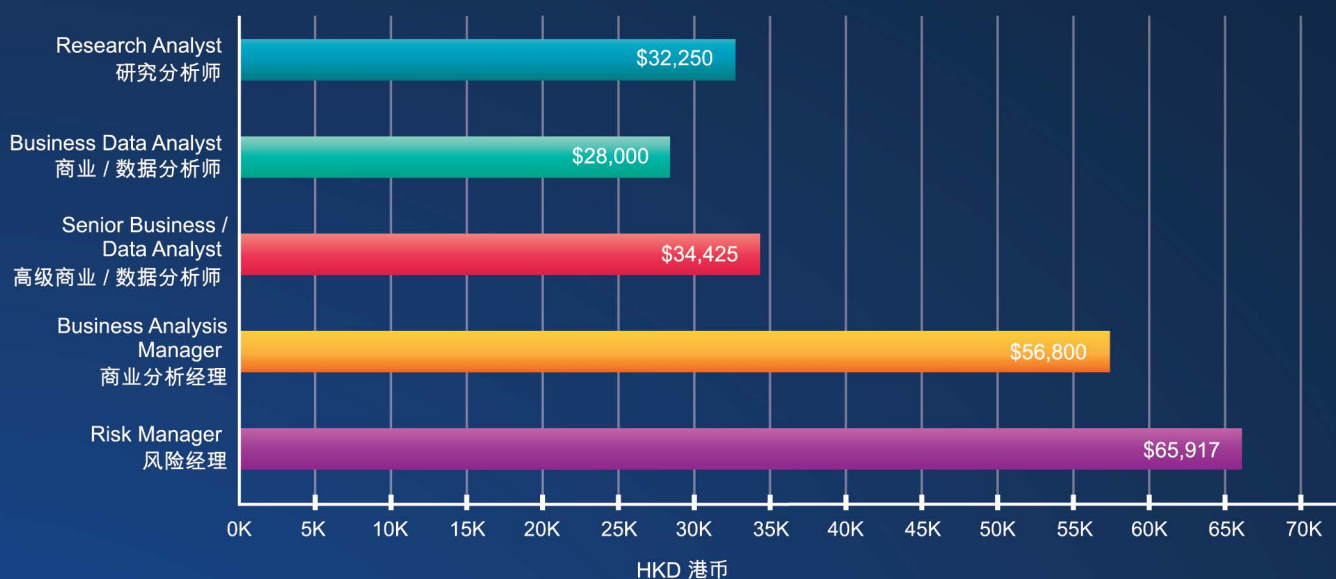- 为金融和公共服务界的众多领域培养具有竞争力和职业道德的专业人士

Career Prospect 就业前景

Data analytics and risk management have been increasingly useful in disciplines that deal with data and risk, including but not limited to financial institutions, government authorities and IT companies/departments, hence there is a large demand of talents in risk analytics. Some representative career prospects and their average salaries are as follows.

在与数据及风险相关的领域中，数据分析和风险管理的实用性正不断增强，这些领域包括但不限于金融机构、政府机关和资讯科技公司及部门，因此对风险分析人才的需求相当大。下图列出部分具有代表性的就业前景及其平均工资水平。

Reference Salary 薪酬参考

Average Monthly Salary in 2024
2024年平均月薪

Position	Salary (HKD)
Research Analyst 研究分析师	$32,250
Business Data Analyst 商业 / 数据分析师	$28,000
Senior Business / Data Analyst 高级商业 / 数据分析师	$34,425
Business Analysis Manager 商业分析经理	$56,800
Risk Manager 风险经理	$65,917

HKD 港币

Source 数据来源：Job Seeker Salary Report 2024

Programme Curriculum 课程结构

Core Modules
核心单元

Risk Analytics and Management
风险分析与管理

Statistical Programming
统计编程

Quantitative Methods in Risk Management
风险管理的定量方法

Data Analytics
数据分析

Selected Topics in Risk Analytics
风险分析专题

Machine Learning for Risk Management
风险管理的机器学习

5 Core Modules
核心单元

+

3 Elective Modules
选修单元

Operational Risk Management
营运风险管理

Credit Risk Management
信用风险管理

Advanced Data Analytics
进阶数据分析

Simulation for Risk Management
风险管理模拟

Analysis of Financial Time Series
金融时间序列分析

Elective Modules
选修单元

Mode of Study 学制

Full time (1 year)
全日制（1年）

Part time (2 years, local students only)
兼读制（2年，仅限本地生）

Medium of Instruction 授课语言

English 英语

Tuition Fee 学费 (2025/26)

HK$ 172,800 (24 credits in total)
港币172,800元（总计24学分）

Graduation Requirements 学位授予

To be eligible for the award of the Master of Science in Risk Analytics, students are required to:
1. complete and obtain a Grade D or above on at least 8 modules (24 credits), including five core modules and three elective modules; and
2. obtain a minimum cumulative GPA of 2.0.

学生需符合以下毕业要求，方可获颁风险分析理学硕士学位：
1. 完成至少24学分（8个单元）并取得D级或以上成绩，包括五个核心单元和三个选修单元；和
2. 累积平均积点（cGPA）达到2.0或以上。

Profiles 师资力量

陈伟森 教授	**Wai Sum CHAN, Professor**
美国天普大学博士	PhD (Temple)
精算建模，商业预测，金融计量经济	Actuarial Modeling, Business Forecasting, Financial Econometrics
蔡少佳 教授	**Siu Kai CHOY, Professor**
香港浸会大学博士	PhD (HKBU)
数据挖掘，机器学习，影像处理	Data Mining, Machine Learning, Image Processing
吴伟亮 课程主任 助理教授	**Tom NG, Programme Director, Assistant Professor**
香港中文大学博士	PhD (CUHK)
变点分析，自助重抽样法，时间序列分析	Change-point Analysis, Bootstrap Resampling, Time Series
陈永钊 课程副主任 助理教授	**Yongzhao CHEN, Associate Programme Director, Assistant Professor**
香港大学博士	PhD (HKU)
信度理论，金融数学，数据分析，保险科技，机器学习	Credibility Theory, Financial Mathematics, Data Analytics, InsurTech, Machine Learning
朱冠麟 课程副主任 讲师	**Alan CHU, Associate Programme Director, Lecturer**
香港科技大学博士	PhD (HKUST)
水平集方法，图像处理，偏微分方程的数值解	Level Set Method, Image Processing, Numerical Solution of Partial Differential Equations
冯颖康 副教授	**Derrick FUNG, Associate Professor**
香港中文大学博士，北美精算师，北美特许企业风险分析师	PhD (CUHK), FSA, CERA (Society of Actuaries)
保险法规，风险管理，保险公司企业财务	Insurance Regulation, Management, Corporate Finance for Insurers
林树仁 副教授	**Benson LAM, Associate Professor**
香港城市大学博士	PhD (HKCityU)
数据挖掘，无监督学习，监督学习，影像处理，医学影像处理，模式识别	Data Mining, Unsupervised Learning, Supervised Learning, Image Processing, Medical Image Processing, Pattern Recognition
梁景泰 高级讲师	**Jacky LEUNG, Senior Lecturer**
香港浸会大学博士	PhD (HKBU)
影像处理，超解析度图像重建，分形图像压缩，图像检索	Image Processing, Super-resolution Image Reconstruction, Fractal Image Compression, Image Retrieval
罗果 助理教授	**Guo LUO, Assistant Professor**
美国俄亥俄州立大学博士	PhD (Ohio State)
科学计算，精算保险模型，金融数学，计算流体动力学，有限时间奇点的形成	Scientific Computing, Actuarial/Insurance Modeling, Financial Mathematics, Computational Fluid Dynamics, Formation of Finite-time Singularities
吴自添 助理教授	**Timothy NG, Assistant Professor**
香港中文大学博士	PhD (CUHK)
时间序列分析，变数选择，复合似然法，随机分析，期权定价理论	Time Series Analysis, Variable Selection, Composite Likelihood Methods, Stochastic Calculus, Option Pricing Theory
萧志中 副教授	**Chi Chung SIU, Associate Professor**
日本东京都立大学博士	PhD (TMU)
随机控制，精算数学，金融数学，运筹学，随机微分博弈	Stochastic Control, Actuarial Mathematics, Financial Mathematics, Operations Research, Stochastic Differential Games
徐颖恩 讲师	**Wing Yan TSUI, Lecturer**
香港浸会大学博士	PhD (HKBU)
逆散射理论，机器学习，波动成像，偏微分方程，隐形理论	Inverse Scattering Theory, Machine Learning, Wave Imaging, Partial Differential Equations, Invisibility
余国惠 副教授	**Carisa YU, Associate Professor**
香港理工大学博士，英国皇家统计学会特许统计师	PhD (HKPolyU), CStat (RSS)
资产管理，风险管理，金融优化理论，期权定价	Asset Management, Risk Management, Financial Optimization, Option Pricing
吴燕 高级讲师	**Michelle WU, Senior Lecturer**
华南理工大学硕士，美国爱荷华大学硕士，北美精算师	MSc (SCUT), MSc (Iowa), FSA (Society of Actuaries)
医疗保险，保险准备金，财务申报，保险产品保费计算，保险风险管理	Medical Insurance, Insurance Reserving, Financial Reporting, Insurance Product Premium Calculation, Insurance Risk Management

Admission Requirements 入学要求

1. A bachelor's degree in science, technology, engineering, mathematics, finance, economics, or related disciplines from a recognised university; and

2. Fulfilment of one of the following English language proficiency requirements if the applicant's bachelor's degree was not obtained from a university/tertiary institution where English is the medium of instruction:

   - TOEFL ≥ 550 (paper-based), ≥ 79 (Internet-based);
   - IELTS ≥ 6.0;
   - CET 6 ≥ 430 or "Pass" if the test was taken before June 2005;
   - TEM-4 ≥ 70;
   - OR an equivalent qualification.

1. 具备获认可大学的理学、技术、工程、数学、金融、经济或相关专业的本科学位；及

2. （若申请人毕业的大学并非以英语授课）以下任何一项英语语言能力要求：

   - 托福 ≥550（笔试），≥79（网考）；
   - 雅思 ≥ 6.0；
   - 大学英语六级考试 ≥ 430或 "合格"（仅适用于2005年6月前）；
   - 英语专业四级考试 ≥ 70；
   - 或与上述条件同等的资历

Admission Enquiries 入学查询

Email 电邮　　　：ra@hsu.edu.hk
Tel. 电话　　　：+852 3963 5231/ 3963 5004
Homepage 主页　：https://ra.hsu.edu.hk

WhatsApp　　　WeChat 微信　　　Website

Qualification Framework 资历架构

HKCAAVQ Qualifications Register
香港学术及职业资历评审局资历名册
Qualification Framework Level 资历架构级别: 6
Registration No. 资历名册登记号码: 25/000337/L6
Validity Period 登记有效期: 01/09/2025 - 31/08/2028
Primary Area of Study / Training 主要学习及培训范畴:
Sciences（Mathematics and Statistics) 理学科（数学及统计学）