



**SHKU**  
**Science**

FACULTY OF SCIENCE  
THE UNIVERSITY OF HONG KONG  
香港大學理學院

# Master of **DATA SCIENCE**

*Providing new perspectives to flourishing data science industry*

**Apply now for entry in September 2021**

**TOP10**

According to the recommendation of a columnist at Forbes, the HKU Master of Data Science programme was ranked as Top 10 among AI and data science master's courses for 2021 in the world.

**M**achine learning

**D**ata Analytics

**A**dvanced Statistical Modelling

**S**ocial Networks

**C**loud Computing



SCIENCE CREATES KNOWLEDGE

# IS THE PROGRAMME FOR YOU

Why this Programme

- Jointly offered by Department of Statistics and Actuarial Science and Department of Computer Science
- The curriculum of Master of Data Science (MDASC) programme adopts a well-balanced and comprehensive pedagogy of both statistical as well as computational concepts and methodologies, underpinning applications that are not limited to business or a single field alone

## World-class Rankings of HKU

### Quacquarelli Symonds (QS)

**QS WORLD UNIVERSITY RANKINGS**  
**#22** World Rankings 2021  
**#3** Asia Rankings 2020

### Times Higher Education (THE)

**THE WORLD UNIVERSITY RANKINGS**  
**#35** World Rankings 2020  
**#4** Asia Rankings 2020

### Eminent Subject Ranking

**QS WORLD UNIVERSITY RANKINGS**  
 QS World University Rankings by Subject 2020:  
**#50** Statistics and Operational Research

### Top-notch Scientists in the Faculty

Clarivate Analytics' Essential Science Indicators 2019  
**15.4%** of our professoriate staff are the world's Top 1% scholars

What the Programme Covers

- Interdisciplinary and comprehensive curriculum
- Solid foundation in statistical and computational analyses
- Electives over a broad range of contemporary topics from Computer Science, Mathematics and Statistics
- Capstone project with real-life scenario



### Tuition fees

Composition fee: HK\$264,000\*  
 Students are required to pay Caution Money (HK\$350, refundable on graduation subject to no claims being made) and Graduation Fee (HK\$350)



### Programme duration

Full-time: 1.5 year      Part-time: 2.5 years  
 Fast-track completion: 1 year full-time, 2 years part-time



### Study load

Credits: 72 credits  
 Learning hours: 1,800 hours (including 240-360 hours for project and contact hours of 264-396 hours)



### Class schedule

- Teaching takes place mainly on weekday evenings and Saturdays
- Optional Summer Courses
  - Tutorials on statistical software (e.g. R and SAS) and computer programming (e.g. Python) will be held in August, 2021 for students who need to rejuvenate their skills



**Medium of Instruction**  
 English



### Assessment

- Mainly written coursework and/or examinations
- A project on a topic of the student's choice

\*The fee shall generally be payable in 3 instalments over 1.5 years for full-time or 5 instalments over 2.5 years for part-time

## Transferable skills

- Up-to-date knowledge in data science helping to decipher the data and extract valuable information that can be used as a strategic part of critical decision-making
- Hands-on training in data science methodologies using powerful software, enhancing competency for data-scientists who require advanced computing and modelling skills
- Collaboration and communication of disciplinary knowledge in data science to specialists and the general public, and ability to appraise professional ethics

## Targeted Taught Postgraduate Programmes Fellowships Scheme

MDASC is selected as an eligible programme under the University Grants Committee for Targeted Taught Postgraduate Programmes Fellowships Scheme. Selected local students admitted to the MDASC (full-time or part-time) in the academic year 2021-22 are eligible to apply (with terms and conditions apply).

Local offer recipients who wish to apply for the Fellowship Scheme should prepare a proposal on how they can contribute to the priority areas (i.e. Business, R&I, and STEM) of Hong Kong after completing MDASC. Successful Fellowship Scheme applicants will each receive an award of HK\$120,000.

## Suoxinda Scholarship in Data Science

Two scholarship recipients, each receiving HK\$20,000, would be selected from the students entering the MDASC programme based on academic merit and admissions interview performance.

## Reimbursable Course(s) by Continuing Education Fund (CEF)

The following courses have been included in the list of reimbursable courses for CEF purposes:

- COMP7503 Multimedia technologies
- COMP7506 Smart phone apps development
- COMP7507 Visualisation and visual analytics
- COMP7906 Introduction to cyber security
- STAT8017 Data mining techniques
- STAT8019 Marketing analytics

All CEF applicants are required to attend at least 70% of the courses before they are eligible for fee reimbursement under the CEF.

The mother programme (MDASC) of these courses is recognised under the Qualification Framework (QF Level 6)



## Host

### Department of Statistics and Actuarial Science

Strongly tied with international professional bodies in statistics and actuarial science, the Department of Statistics and Actuarial Science (SAAS) enjoys a very high profile in both teaching and research. SAAS research areas span from classical areas of statistics, to a range of applied domains, and the rapidly developing areas of big data and artificial intelligence. The Big Data Research Cluster and the HKU-TCL Joint Research Centre for Artificial Intelligence have been established to serve as platforms for interdisciplinary research.

An answer to the desperate call for experts in processing complex digital data, SAAS jointly offers the MDASC programme with the Department of Computer Science, teaching students how to analyse data and formulate data-driven strategies.



Those whose interest in high-level analytical skills straddles the disciplinary divide between statistics and computational analytics

Those who wish to pursue further study in the field of data science after studying science, social sciences, engineering, medical sciences, information systems, computing and data analytics in their undergraduate studies



### Examples of backgrounds of admitted students:

- CEO
- Director
- Vice-President
- Head of Global Markets
- Principal Application Analyst
- Senior Analyst Programmer
- Business Analytics Manager
- Compliance Manager
- Software Development Engineer
- Quantitative Researcher
- Solution Developer
- Teacher

## Hear from our graduate

Ting Hin CHEUNG  
 Director, HSBC Hong Kong



“Being a MDASC student with no statistics nor programming background, it was definitely a challenging yet fruitful experience so far. After over a decade working in the sales and trading industry, I felt refreshing going back to the campus and studying all the fancy formula and symbols again. I would say the courses are much more demanding than I expected, but thanks to the summer preparation classes, it helped to recall my memories on some basic concepts.”

Where will this Programme Lead You

Who should Take this Programme

Programme structure

| Design of curriculum (72 credits)                                    |                                                                          |
|----------------------------------------------------------------------|--------------------------------------------------------------------------|
| Compulsory Courses (36 credits)                                      |                                                                          |
| COMP7404 Computational intelligence and machine learning (6 credits) |                                                                          |
| DASC7011 Statistical inference for data science (6 credits)          |                                                                          |
| DASC7104 Advanced database systems (6 credits)                       |                                                                          |
| DASC7606 Deep learning (6 credits)                                   |                                                                          |
| STAT7102 Advanced statistical modelling (6 credits)                  |                                                                          |
| STAT8003 Time series forecasting (6 credits)                         |                                                                          |
| Disciplinary Electives (24 credits)                                  |                                                                          |
| with at least 12 credits from List A and 12 credits from List B      |                                                                          |
| List A                                                               | List B                                                                   |
| COMP7105 Advanced topics in data science (6 credits)                 | MATH8502 Topics in applied discrete mathematics (6 credits)              |
| COMP7305 Cluster and cloud computing (6 credits)                     | MATH8503 Topics in mathematical programming and optimisation (6 credits) |
| COMP7409 Machine learning in trading and finance (6 credits)         | STAT6008 Advanced statistical inference (6 credits)                      |
| COMP7503 Multimedia technologies (6 credits)                         | STAT6013 Financial data analysis (6 credits)                             |
| COMP7506 Smart phone apps development (6 credits)                    | STAT6015 Advanced quantitative risk management and finance (6 credits)   |
| COMP7507 Visualisation and visual analytics (6 credits)              | STAT6016 Spatial data analysis (6 credits)                               |
| COMP7906 Introduction to cyber security (6 credits)                  | STAT6019 Current topics in statistics (6 credits)                        |
| FITE7410 Financial fraud analytics (6 credits)                       | STAT7008 Programming for data science (6 credits)                        |
| ICOM6044 Data science for business (6 credits)                       | STAT8017 Data mining techniques (6 credits)                              |
|                                                                      | STAT8019 Marketing analytics (6 credits)                                 |
|                                                                      | STAT8306 Statistical methods for network data (3 credits)                |
|                                                                      | STAT8307 Natural language processing and text analytics (3 credits)      |
| Capstone requirement (12 credits)                                    |                                                                          |
| DASC7600 Data science project (12 credits)                           |                                                                          |

- Remarks:
- Students who have completed the same courses in their previous studies in HKU, e.g. Master of Statistics or Master of Science in Computer Science may, be permitted to select up to 24 credits of disciplinary electives from either List A or List B above if they are not able to find any untaken options from either of the lists of disciplinary electives.
  - The programme structure will be reviewed from time to time and is subject to change.

Compulsory Courses  
COMP7404 Computational intelligence and machine learning

This course will teach a broad set of principles and tools that will provide the mathematical, algorithmic and philosophical framework for tackling problems using Artificial Intelligence (AI) and Machine Learning (ML). AI and ML are highly interdisciplinary fields with impact in different applications, such as, biology, robotics, language, economics, and computer science. AI is the science and engineering of making intelligent machines, especially intelligent computer programs, while ML refers to the changes in systems that perform tasks associated with AI. Ethical issues in advanced AI and how to prevent learning algorithms from acquiring morally undesirable biases will be covered. Topics may include a subset of the following: problem solving by search, heuristic (informed) search, constraint satisfaction, games, knowledge-based agents,

supervised learning, unsupervised learning; learning theory, reinforcement learning and adaptive control and ethical challenges of AI and ML.



DASC7011 Statistical inference for data science

Computing power has revolutionised the theory and practice of statistical inference. Reciprocally, novel statistical inference procedures are becoming an integral part of data science. By focusing on the interplay between statistical inference and methodologies for data science, this course reviews the main concepts underpinning classical statistical inference, studies computer-intensive methods for conducting statistical inference, and examines important issues concerning statistical inference drawn upon modern learning technologies. Contents include classical frequentist and Bayesian inferences, computer-intensive methods such as the EM algorithm, the bootstrap and the Markov chain Monte Carlo, large-scale hypothesis testing, high-dimensional modeling, and post-model-selection inference.

DASC7104 Advanced database systems

The course will study some advanced topics and techniques in database systems, with a focus on the aspects of big data analytics, algorithms, and system design & organisation. It will also survey the recent development and progress in selected areas. Topics include: query optimisation, spatial-spatiotemporal data management, multimedia and time-series data management, information retrieval and XML, data mining.

DASC7606 Deep learning

Machine learning is a fast growing field in computer science and deep learning is the cutting edge technology that enables machines to learn from large-scale and complex datasets. Ethical implications of deep learning and its applications will be covered first and the course will focus on how deep neural networks are applied to solve a wide range of problems in areas such as natural language processing, image processing, financial predictions, game playing and robotics. Topics covered include linear and logistic regression, artificial neural networks and how to train them, recurrent neural networks, convolutional neural networks, deep reinforcement learning and unsupervised feature learning. Popular deep learning software, such as TensorFlow, will also be introduced.

STAT7102 Advanced statistical modelling

This course introduces modern methods for constructing and evaluating statistical models and their implementation using popular computing software, such as R or Python. It will cover both the underlying principles

of each modelling approach and the model estimation procedures. Topics from: (i) Linear regression models; (ii) Generalised linear models; (iii) Model selection and regularisation; (iv) Kernel and local polynomial regression; (v) Generalised additive models; (vi) Hidden Markov models and Bayesian networks.

STAT8003 Time series forecasting

A time series consists of a set of observations on a random variable taken over time. Such series arise naturally in climatology, economics, finance, environmental research and many other disciplines. In addition to statistical modelling, the course deals with the prediction of future behaviour of these time series. This course distinguishes different types of time series, investigates various representations for them and studies the relative merits of different forecasting procedures.

Disciplinary Electives  
COMP7105 Advanced topics in data science

This course will introduce selected advanced computational methods and apply them to problems in data analysis and relevant applications.



COMP7305 Cluster and cloud computing

This course offers an overview of current cloud technologies, and discusses various issues in the design and implementation of cloud systems. Topics include cloud delivery models (SaaS, PaaS, and IaaS) with motivating examples from Google, Amazon, and Microsoft; virtualisation techniques implemented in Xen, KVM, VMWare, and Docker; distributed file systems, such as Hadoop file system; MapReduce and Spark programming models for large-scale data analysis, networking techniques in hyper-scale data centers. The students will learn the use of Amazon EC2 to deploy applications on cloud, and implement a novel cloud computing application on a Xen-enabled PC cluster as part of their term project.

## COMP7409 Machine learning in trading and finance

The course introduces our students to the field of Machine Learning, and help them develop skills of applying Machine Learning, or more precisely, applying supervised learning, unsupervised learning and reinforcement learning to solve problems in Trading and Finance.

This course will cover the following topics. (1) Overview of Machine Learning and Artificial Intelligence, (2) Supervised Learning, Unsupervised Learning and Reinforcement Learning, (3) Major algorithms for Supervised Learning and Unsupervised Learning with applications to Trading and Finance, (4) Basic algorithms for Reinforcement Learning with applications to optimal trading, asset management, and portfolio optimisation, (5) Advanced methods of Reinforcement Learning with applications to high-frequency trading, cryptocurrency trading and peer-to-peer lending.

## COMP7503 Multimedia technologies

This course presents fundamental concepts and emerging technologies for multimedia computing. Students are expected to learn how to develop various kinds of media communication, presentation, and manipulation techniques. At the end of course, students should acquire proper skill set to utilise, integrate and synchronise different information and data from media sources for building specific multimedia applications. Topics include media data acquisition methods and techniques; nature of perceptually encoded information; processing and manipulation of media data; multimedia content organisation and analysis; trending technologies for future multimedia computing.

## COMP7506 Smart phone apps development

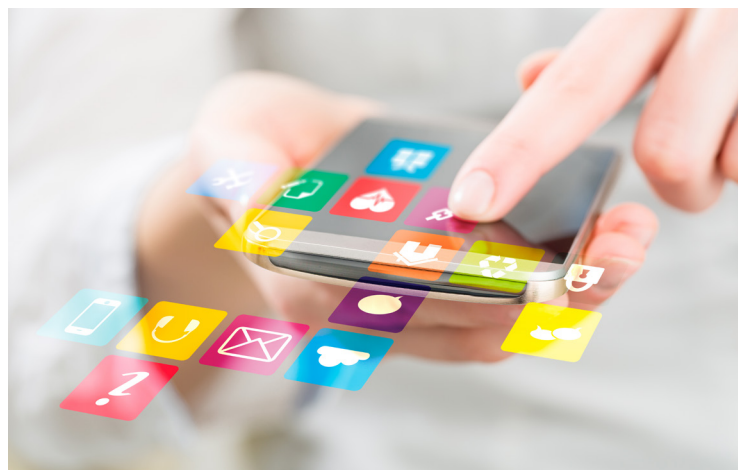
Smart phones have become very popular in recent years. According to a study, by 2020, 70% of the world's population is projected to own a smart phone, an estimated total of almost 6.1 billion smartphone users in the world.

Smart phones play an important role in mobile communication and applications.

Smart phones are powerful as they support a wide range of applications (called apps). Most of the time, smart phone users just purchase their favorite apps wirelessly from the vendors. There is a great potential for software developer to reach worldwide users.

This course aims at introducing the design issues of smart phone apps. For examples, the smart phone screen is usually much smaller than the computer

monitor. We have to pay special attention to this aspect in order to develop attractive and successful apps. Various modern smart phone apps development environments and programming techniques (such as Java for Android phones, and Swift for iPhones) will also be introduced to facilitate students to develop their own apps.



## COMP7507 Visualisation and visual analytics

This course introduces the basic principles and techniques in visualisation and visual analytics, and their applications. Topics include human visual perception; color; visualisation techniques for spatial, geospatial and multivariate data, graphs and networks; text and document visualisation; scientific visualisation; interaction and visual analysis.

## COMP7906 Introduction to cyber security

The aim of the course is to introduce different methods of protecting information and data in the cyber world, including the privacy issue. Topics include introduction to security; cyber attacks and threats; cryptographic algorithms and applications; network security and infrastructure.

## FITE7410 Financial fraud analytics

This course aims at introducing various analytics techniques to fight against financial fraud. These analytics techniques include, descriptive analytics, predictive analytics, and social network learning. Various data set will also be introduced, including labeled or unlabeled data sets, and social network data set. Students learn the fraud patterns through applying the analytics techniques in financial frauds, such as, insurance fraud, credit card fraud, etc.

Key topics include: Handling of raw data sets for fraud detection; Applications of descriptive analytics, predictive analytics and social network analytics to construct fraud detection models; Financial Fraud Analytics challenges and issues when applied in business context.

## ICOM6044 Data science for business

The emerging discipline of data science combines statistical methods with computer science to solve problems in applied areas. In this case we focus on how data science can be used to solve business problems especially those in electronic commerce. By its very nature e-commerce is able to generate large amounts of data and data mining methods are quite helpful for managers in turning this data into knowledge which in turn can be used to make better decisions. These data sets and their accompanying quantitative methods have the potential to dramatically change decision making in many areas of business. For example, ideas like interactive marketing, customer relationship management, and database marketing are pushing companies to utilise the information they collect about their customers in order to make better marketing decisions.

This course focuses on how data science methods can be applied to solve managerial problems in marketing and electronic commerce. Our emphasis is developing a core set of principles that embody data science: empirical reasoning, exploratory and visual analysis, and predictive modeling. We use these core principles to understand many methods used in data mining and machine learning. Our strategy in this course is to survey several popular techniques and understand how they map into these core principles. These techniques are illustrated with case studies. However, the emphasis is not on the software for implementing these techniques but on understanding the inputs and outputs of these techniques and how they are used to solve business problems.

## MATH8502 Topics in applied discrete mathematics

This course aims to provide students with the opportunity to study some further topics in applied discrete mathematics. A selection of topics in discrete mathematics applied in combinatorics and optimisation (such as algebraic coding theory, cryptography, discrete optimisation, etc.) The selected topics may vary from year to year.

## MATH8503 Topics in mathematical programming and optimisation

A study in greater depth of some special topics in mathematical programming or optimisation. It is mainly intended for students in Operations Research or related subject areas. This course covers a selection of topics which may include convex programming, nonconvex programming, saddle point problems, variational

inequalities, optimisation theory and algorithms suitable for applications in various areas such as machine learning, artificial intelligence, imaging and computer vision. The selected topics may vary from year to year.

## STAT6008 Advanced statistical inference

This course covers the advanced theory of point estimation, interval estimation and hypothesis testing. Using a mathematically-oriented approach, the course provides a formal treatment of inferential problems, statistical methodologies and their underlying theory. It is suitable in particular for students intending to further their studies or to develop a career in statistical research. Contents include: (1) Decision problem – frequentist approach: loss function; risk; decision rule; admissibility; minimaxity; unbiasedness; Bayes' rule; (2) Decision problem – Bayesian approach: prior and posterior distributions, Bayesian inference; (3) Estimation theory: exponential families; likelihood; sufficiency; minimal sufficiency; completeness; UMVU estimators; information inequality; large-sample theory of maximum likelihood estimation; (4) Hypothesis testing: uniformly most powerful (UMP) test; monotone likelihood ratio; UMP unbiased test; conditional test; large-sample theory of likelihood ratio; confidence set; (5) Nonparametric inference; bootstrap methods.

## STAT6013 Financial data analysis

This course aims at introducing statistical methodologies in analysing financial data. Financial applications and statistical methodologies are intertwined in all lectures. Contents include: recent advances in modern portfolio theory, Copula, market microstructure and high frequency data analysis, FinTech applications with various computational tools such as artificial neural networks, Kalman filters and blockchain data analysis.



## STAT6015 Advanced quantitative risk management and finance

This course covers statistical methods and models of importance to risk management and finance and links finance theory to market practice via statistical modelling and decision making. Emphases will be put on empirical analyses to address the discrepancy between finance theory and market data. Contents include: Elementary Stochastic Calculus; Basic Monte Carlo and Quasi-Monte Carlo Methods; Variance Reduction Techniques; Simulating the value of options and the value-at-risk for risk management; Review of univariate volatility models; multivariate volatility models; Value-at-risk and expected shortfall; estimation, back-testing and stress testing; Extreme value theory for risk management.

## STAT6016 Spatial data analysis

This course covers statistical concepts and tools involved in modelling data which are correlated in space. Applications can be found in many fields including epidemiology and public health, environmental sciences and ecology, economics and others. Covered topics include: (1) Outline of three types of spatial data: point-level (geostatistical), areal (lattice), and spatial point process. (2) Model-based geostatistics: covariance functions and the variogram; spatial trends and directional effects; intrinsic models; estimation by curve fitting or by maximum likelihood; spatial prediction by least squares, by simple and ordinary kriging, by trans-Gaussian kriging. (3) Areal data models: introduction to Markov random fields; conditional, intrinsic, and simultaneous autoregressive (CAR, IAR, and SAR) models. (4) Hierarchical modelling for univariate spatial response data, including Bayesian kriging and lattice modelling. (5) Introduction to simple spatial point processes and spatio-temporal models. Real data analysis examples will be provided with dedicated R packages such as geoR.

## STAT6019 Current topics in statistics

This course includes two modules. The first module, *Causal Inference*, is an introduction to key concepts and methods for causal inference. Contents include 1) the counterfactual outcome, randomised experiment, observational study; 2) Effect modification, mediation and interaction; 3) Causal graphs; 4) Confounding, selection bias, measurement error and random variability; 5) Inverse probability weighting and the marginal structural models; 6) Outcome regression and the propensity score; 7) The standardisation and the parametric g-formula; 8) G-estimation and the structural

nested model; 9) Instrumental variable method; 10) Machine learning methods for causal inference; 11) Other topics as determined by the instructor. The second module, *Posterior Inference and Simulation*, cover topics from: 1) Large-sample properties of posterior distribution; 2) Langevin dynamics and Hamiltonian MCMC; 3) Sequential Monte Carlo methods; 4) Approximation Bayesian computation; 5) Variational Bayesian methods; 6) Other topics as determined by the instructor.

## STAT7008 Programming for data science

In the big data era, it is very easy to collect huge amounts of data. Capturing and exploiting the important information contained within such datasets poses a number of statistical challenges. This course aims to provide students with a strong foundation in computing skills necessary to use R or Python to tackle some of these challenges. Possible topics to be covered may include exploratory data analysis and visualisation, collecting data from a variety of sources (e.g. excel, web-scraping, APIs and others), object-oriented programming concepts and scientific computation tools. Students will learn to create their own R packages or Python libraries.



## STAT8017 Data mining techniques

With the rapid developments in computer and data storage technologies, the fundamental paradigms of classical data analysis are mature for change. Data mining techniques aim at helping people to work smarter by revealing underlying structure and relationships in large amounts of data. This course takes a practical approach to introduce the new generation of data mining techniques and show how to use them to make better decisions. Topics include data preparation, feature selection, association rules, decision trees, bagging, random forests and gradient boosting, cluster analysis, neural networks, introduction to text mining.

## STAT8019 Marketing analytics

This course aims to introduce various statistical models and methodology used in marketing research. Special emphasis will be put on marketing analytics and statistical techniques for marketing decision making including market segmentation, market response models, consumer preference analysis and conjoint analysis. Contents include market response models, statistical methods for segmentation, targeting and positioning, statistical methods for new product design.

## STAT8306 Statistical methods for network data

The six degree of separation theorises that human interactions could be easily represented in the form of a network. Examples of networks include router networks, the World Wide Web, social networks (e.g. Facebook or Twitter), genetic interaction networks and various collaboration networks (e.g. movie actor coloration network and scientific paper collaboration network). Despite the diversity in the nature of sources, the networks exhibit some common properties. For example, both the spread of disease in a population and the spread of rumors in a social network are in sub-logarithmic time. This course aims at discussing the common properties of real networks and the recent development of statistical network models. Topics may include common network measures, community detection in graphs, preferential attachment random network models, exponential random graph models, models based on random point processes and the hidden network discovery on a set of dependent random variables.



## STAT8307 Natural language processing and text analytics

The textual data constitutes an enormous proportion of unstructured data which is characterised as one of 'V's in Big Data. The logical and computational reasonings are applied to transform large collection of

written resources to structured data for use in further analysis, visualisation, integration with structured data in database or warehouse, and further refinement using machine learning systems. This course introduces the methodology of text analytics. Topics include natural language processing, word representation, text categorisation and clustering, topic modelling and sentiment analysis. Students are required to possess basic understanding of Python language.

## Capstone Requirement DASC7600 Data science project

students will be required to carry out independent work on a major project under the supervision of individual staff member. A written report is required.



### More course information at:

<https://www.scifac.hku.hk/prospective/tpg/MDASC>



<https://saasweb.hku.hk/programme/mdasc-index.php>





Through merging the strengths of the two departments, we aim to equip students with state-of-the-art computational skills and the frontier of high-performance analytics. Students will be well-prepared for wide-ranging job opportunities in data science when they graduate.



Programme Director and Head of Department of Statistics and Actuarial Science

Professor G S YIN  
MA Temple; MSc, PhD N Carolina

Staff List

Department of Statistics and Actuarial Science

|                      |                                                              |
|----------------------|--------------------------------------------------------------|
| Dr A BENCHIMOL       | BSc UBA; MA UAH; MPhil, PhD UC3M                             |
| Dr K C CHEUNG        | BSc(ActuSc), PhD HK; ASA                                     |
| Dr O T K CHOI        | BSc UBC; MSc Oxford                                          |
| Dr Y K CHUNG         | BSc, MPhil CUHK; PhD HK                                      |
| Professor T W K FUNG | BSocSc HK; MSc Lond; PhD HK; DIC                             |
| Professor F W H HO   | BSc, MSocSc HK                                               |
| Mrs G M JING         | BSc, MA, DipEd Syd                                           |
| Dr C W KWAN          | BSc, PhD HK                                                  |
| Dr E K F LAM         | BA St. Thomas; MA New Brunswick; PhD HK                      |
| Professor K LAM      | BA HK; PhD Wisconsin                                         |
| Dr A S M LAU         | BEng City; MSc HK; PhD CUHK                                  |
| Dr D LEE             | BSc(ActuSc), MPhil HK; PhD British Columbia                  |
| Professor S M S LEE  | BA, PhD Cantab                                               |
| Mr D K T LEUNG       | BA, MBA HK                                                   |
| Dr E A L LI          | BSc HK; MEcon, PhD Syd                                       |
| Dr G D LI            | BSc MSc Peking; PhD HK                                       |
| Dr W T LI            | BSc USTC; PhD Rutgers                                        |
| Dr Z H LIU           | ScD Harvard                                                  |
| Dr C WANG            | PhD NUS                                                      |
| Dr K P WAT           | BSc(ActuSc), PhD HK; FSA; CERA; FRM                          |
| Dr J T Y WONG        | BSc(ActuSc), MPhil HK; PhD Waterloo; FSA                     |
| Dr R W L WONG        | BSc, MPhil CUHK; MA, PhD Pittsburg; ASA                      |
| Professor S P S WONG | BSc, MPhil HKU; PhD Stanford                                 |
| Dr J F XU            | BSc, USTC; MPhil, PhD Columbia                               |
| Professor H L YANG   | BSc Inner Mongolia; MMath Waterloo; PhD Alberta; ASA; HonFIA |
| Professor J J F YAO  | BSc, MSc, PhD Paris-Sud Orsay                                |
| Professor G S YIN    | MA Temple; MSc, PhD N Carolina                               |
| Professor K C YUEN   | BSc, MSc, PhD Calgary; ASA                                   |
| Dr D Y ZHANG         | BSc Nankai; MSc, PhD NCSU                                    |
| Dr M M Y ZHANG       | BSc UCSB; MSc, PhD UT Austin                                 |
| Dr Z Q ZHANG         | BSc Nankai, MSc E China Normal; PhD HK                       |
| Dr K ZHU             | BSc, USTC; PhD HKUST                                         |

Department of Computer Science

|                        |                                              |
|------------------------|----------------------------------------------|
| Professor B CAUTIS     | PhD INRIA & University of Paris South, Orsay |
| Dr B M Y CHAN          | MS UC San Diego, PhD HK                      |
| Dr V P S CHAN          | PhD HK                                       |
| Professor F Y L CHIN   | PhD Princeton                                |
| Dr K P CHOW            | MA, PhD, UC Santa Barbara                    |
| Dr T W CHIM            | PhD HK                                       |
| Dr L Y K CHOI          | PhD HK                                       |
| Dr W Y CHUNG           | PhD The University of Arizona                |
| Dr T LUO               | PhD HK                                       |
| Professor A MONTGOMERY | MBA, PhD University of Chicago               |
| Dr D SCHNIEDERS        | PhD HK                                       |
| Dr M SOZIO             | PhD Sapienza University of Rome              |
| Professor C L WANG     | PhD USC                                      |
| Dr R S W YIU           | PhD UC Berkeley                              |
| Professor S M YIU      | PhD HK                                       |

Admissions

Requirements

1. A Bachelor’s degree with honours, or an equivalent qualification;
2. Applicants should have taken at least 1 university or postsecondary certificate course in each of the following 3 subjects or related areas
  - ◇ calculus and algebra
  - ◇ computer programming
  - ◇ introductory statistics
3. Fulfill the University Entrance Requirements.

How to apply

Main Round Deadline: **12 noon, December 15, 2020 (GMT+8)**  
Clearing Round Deadline: **12 noon, February 1, 2021 (GMT+8)**

Online application



[aal.hku.hk/tpg](http://aal.hku.hk/tpg)

Further Information

Programme details



[bit.ly/3dRGa3S](http://bit.ly/3dRGa3S)



[bit.ly/2BVaCNt](http://bit.ly/2BVaCNt)

Support for students



[www.cedars.hku.hk/](http://www.cedars.hku.hk/)

Enquiries

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## Faculty of Science

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