

BSc in Mathematics and Economics

A program jointly offered by the School of Science
and School of Business and Management



BSc in Mathematics and Economics

Program Directorship:

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and Economics**

Lecturer, Department of Mathematics

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**Co-Director, BSc in Mathematics
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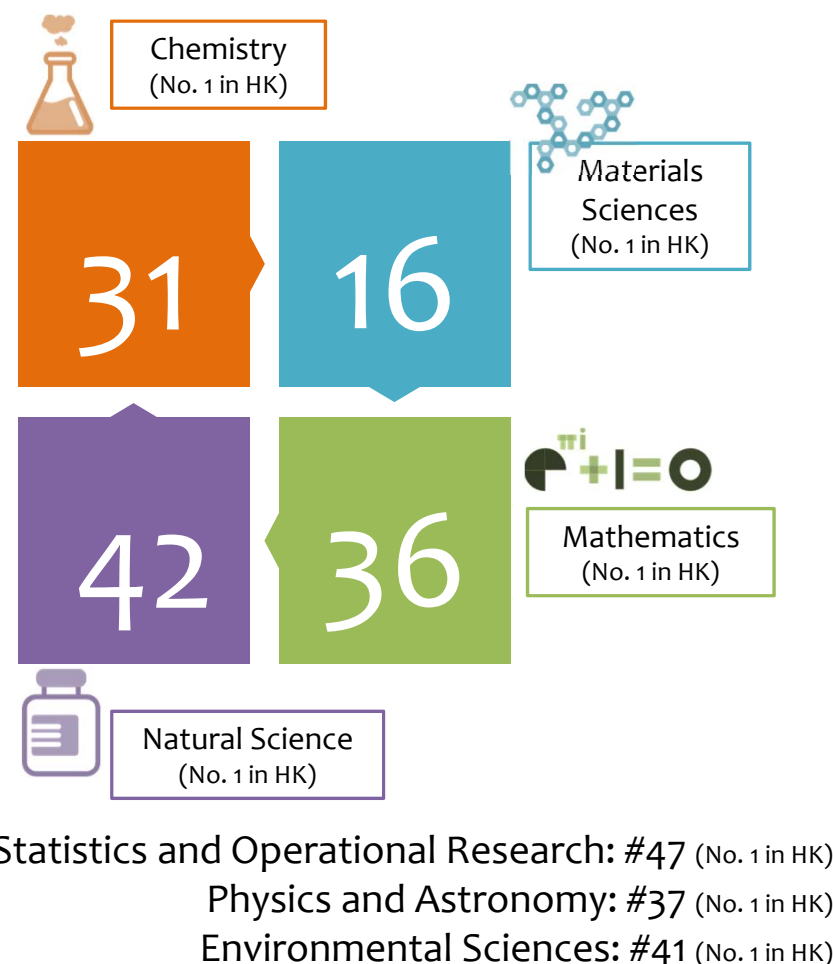
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International Rankings



QS World University Rankings 2021 (By Subject)



Program Overview

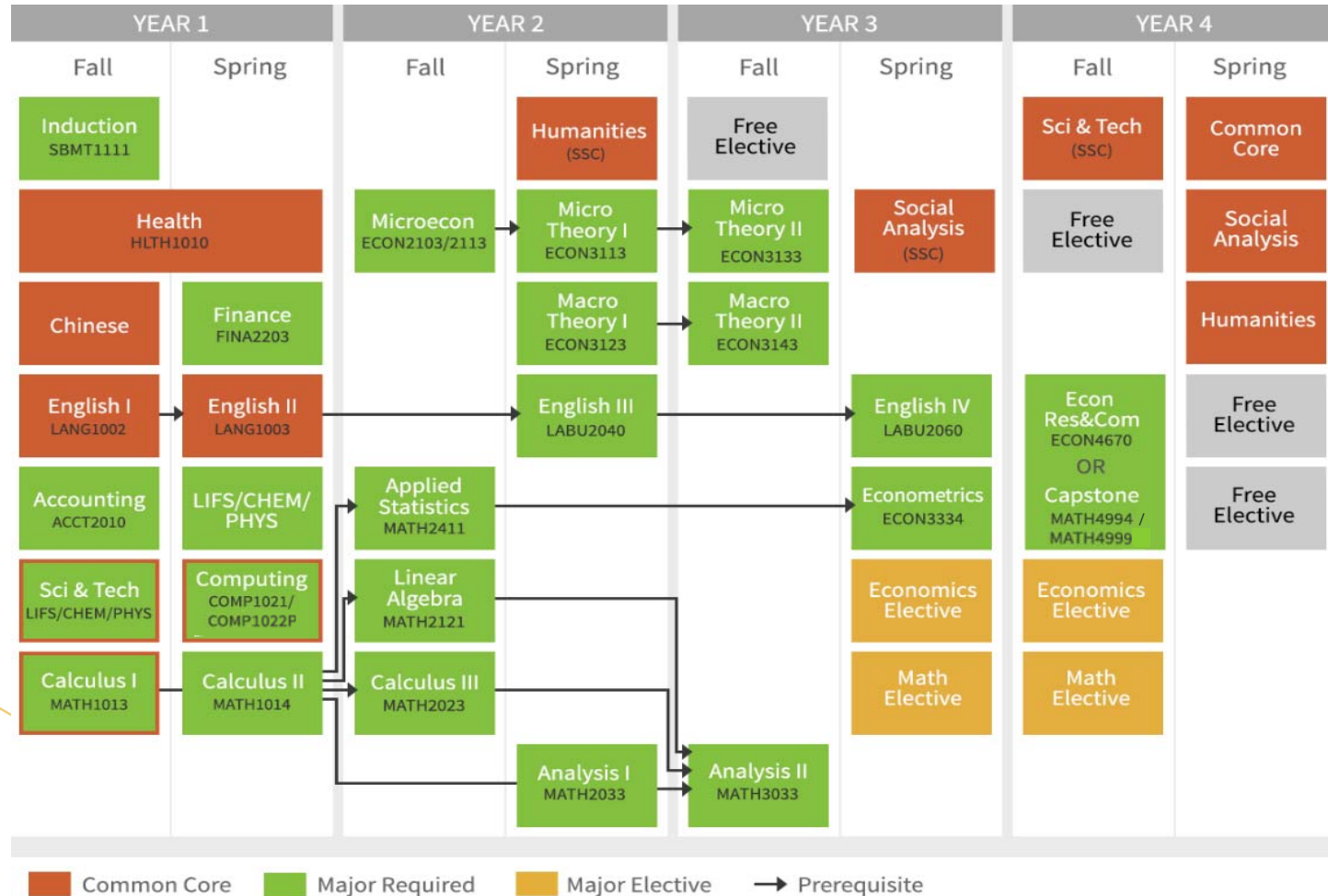


Program Highlights

- **Unique** degree program in Hong Kong that combines modern economic theories with advanced mathematical skills
 - Excellent foundation for a successful career in **business, finance, or public sectors**
- **Broad-based** education that stresses lifelong learning abilities **VS** professional training (Quantitative Finance, Actuarial Science, Risk Management)
 - Beneficial to **long-term** career success
- Enjoy **opportunities** offered by BOTH School of Science and School of Business and Management

Normative Study Pathway

(Year 1 Entry / Program-based)



Mathematics/Economics depth elective

+ Mathematics Depth Electives

Course code		Course
MATH	3423	Statistical Inference
MATH	3425	Stochastic Modeling
MATH	3426	Sampling
MATH	4321	Game Theory
MATH	4335	Introduction to Optimization
MATH	4422	Data Analysis
MATH	4423	Nonparametric Statistics
MATH	4427	Loss Models and their Applications
MATH	4511	Quantitative Methods for Fixed Income Derivatives
MATH	4512	Fundamentals of Mathematical Finance
MATH	4513	Life Contingencies Models and Insurance Risk

+ Economics Depth Electives

Course code		Course
ECON	4114	Industrial Organization and Competitive Strategy
ECON	4234	Labor Economics and Human Resources
ECON	4244	Economics of Human Behavior (Last offered in 2012-13)
ECON	4254	Law and Economics
ECON	4284	Econometrics for Cross-Section and Panel Data
ECON	4304	Time Series Econometrics and Business Forecasting
ECON	4334	Money and Banking
ECON	4364	International Trade and Investment
ECON	4374	International Macroeconomics and Finance
ECON	4384	Globalization: Trade, Investment and Exchange Rate
ECON	4434	Economic Development and Growth
ECON	4474	Hong Kong's Economy
ECON	4584	Topics in Economic Growth

Minor Programs

- The University offers over 20 minor programs. The minors are under Science, Engineering, Business and Management, Humanities and Social Science field.
- For details: <https://prog-crs.ust.hk/ugprog/minor.html>

School of Science (SSCI)

Program Dept/Office	Program Code	Program Title
Chemistry	MINOR-CHEM	Chemistry
Life Science	MINOR-BIOT	Biotechnology
	MINOR-BISC	Biological Science
Mathematics	MINOR-ACTM	Actuarial Mathematics
	MINOR-MATH	Mathematics
Ocean Science	MINOR-ENVS	Environmental Science
Physics	MINOR-ASCO	Astrophysics and Cosmology
	MINOR-PHYS	Physics
Life Science and Physics	MINOR-BIPH	Biological Physics

School of Engineering (SENG)

Program Dept/Office	Program Code	Program Title
Bioengineering	MINOR-BIEN	Bioengineering
Civil and Environmental Engineering	MINOR-ESM	Environmental Sustainability and Management
Computer Science and Engineering	MINOR-BDT	Big Data Technology
	MINOR-IT	Information Technology
Electronic and Computer Engineering	MINOR-ROBO	Robotics
	MINOR-SUSEE	Sustainable Energy Engineering
Industrial Engineering and Decision Analytics	MINOR-TM	Technology Management
Integrated Systems and Design	MINOR-DESIN	Design
Mechanical and Aerospace Engineering	MINOR-AERO	Aeronautical Engineering

School of Humanities and Social Science (SHSS)

Program Dept/Office	Program Code	Program Title
School of Humanities and Social Science	MINOR-CS	China Studies
Humanities	MINOR-HUMA	Humanities
Social Science	MINOR-SOSC	Social Science

Joint-school Program(s)

Program Dept/Office	Program Code	Program Title
School of Humanities and Social Science, and School of Business and Management	MINOR-PBS	Psychological and Behavioral Science
School of Science, School of Engineering and School of Business and Management	MINOR-ENTR	Entrepreneurship

Australia - Monash University	France - Ecole Polytechnique	Norway - University of Bergen	Netherlands - University of Groningen	China - Peking University - Tsinghua University
Austria - MCI Management Center Innsbruck	Germany - University of Stuttgart	Poland - Jagiellonian University	Turkey - Koc University	Taiwan - National Taiwan University
Canada - McGill University - University of Toronto	Ireland - Trinity College Dublin	Sweden - Lund University	United Kingdom - King's College London - University College London - University of Manchester - The London School of Economics and Political Science	Japan - Kyoto University
Denmark - University of Copenhagen	Luxembourg - University of Luxembourg	Switzerland - ETH Zurich	United States - Cornell University - Yale University - University of Pennsylvania - Harvard University - Columbia University	South Korea - Seoul National University

(Popular Destinations)

Overseas Exchange Program

HKUST has approximately 230 exchange partners across 36 countries around the world. MAEC students can join exchange programs offered by both School of Science & School of Business and Management.

Career Prospects



Career Prospects

- **Promising opportunities** in the banking & finance industry for those who are capable of applying mathematical tools to financial markets and economic forecasting
- **Interdisciplinary training** highly valued by employers: more diverse career options than those majoring in Mathematics or Economics alone
- **Sufficient academic preparation** for entry into top PhD / Master's / professional programs in economics, statistics, financial mathematics, and other business-related fields.

Recent placements include: University of Chicago, Columbia University, Stanford University, Yale University, etc.

2018 Graduates

- Average monthly salary: HK\$29,930
- Max: **HK\$87,500 / month**

Job Title	Job Nature	Monthly Salary in HKD (Rounded)
Investment Banking Analyst	Banking / Finance	\$87,500
Investment Banking Analyst	Banking / Finance	\$68,300
Quantitative Trader	Banking / Finance	\$46,700
Risk Analyst	Banking / Finance	\$23,300
Associate Consultant	Administration / Management	\$21,000
Actuarial Assistant	Economics, Statistical & Mathematical Work	\$20,400

Further Studies

Graduation Year	Position - Company
2018	PhD in Economics (Johns Hopkins University)
2018	MA in Economics (New York University)
2018	MSc in Finance (Imperial College London)
2019	PhD in Statistics (University of Michigan)
2019	PhD in Economics (Pennsylvania State University)
2019	MPhil in Economics (University of Cambridge)
2020	Master in Mathematics of Finance (Columbia University)
2020	MAPSS in Economics (University of Chicago)
2020	MSc Business Analytics (Imperial College London)

Admission Requirements – JUPAS (JS5813)

Check out your predicted JUPAS score at
<https://join.ust.hk/jupas-score/>

Minimum Requirements

Subject	Minimum Level Requirement
English Language	4
Chinese Language	3
Mathematics (Compulsory Part)	3
Liberal Studies	2
Elective 1 Must be M1 / M2 / Economics / Biology / Physics / Chemistry / Combined Science	3
Elective 2 Any Category A subjects or M1 / M2	3

JUPAS score calculation

Best 6 subjects with weighting

English & Math (Comp) x 2

Best Elective x 2
M1/M2

Best Elective x 1.5
Economics / Biology / Chemistry / Physics / Combined Science

Subject 1 **Weighted (x2)** English Language

Subject 2 **Weighted (x2)** Mathematics (Compulsory Part)

Subject 3 **Weighted Best Elective:**
(x2) M1/M2
(x1.5) Economics / Biology / Chemistry / Physics /
Combined Science

Subject 4, 5 & 6 **Non-weighted** Next best 3 subjects
Can be Core **OR** any Category A Subjects

Admission Scores 2020

Admission Scores 2020												
		English	Chinese	Math (Comp)	Liberal Studies	Elective 1	Elective 2	Elective 3	M1/M2	Weighted Score [#]	Highest Attainable Weighted Score	
Best 5	JS5102 Science (Group A) Program (SSCI-A)	Median	3	3	5	4	4	3	-	4	27.5	52.5
		Lower Quartile	4	4	4	4	4	3	-	3	26	
	JS5103 Science (Group B) Program (SSCI-B)	Median	4	4	4	4	4	4	4	-	30	52.5
		Lower Quartile	3	4	4	3	4	4	-	-	28.5	
	JS5101 International Research Enrichment Program (IRE)	Median	5	4	5*	5*	5**	5*	5*	5*	30	35
		Lower Quartile	4	4	5**	3	5*	5	4	5**	29	
Best 6	JS5811 Biotechnology and Business Program (BIBU)	Median	5	5*	4	5	5*	5	5	-	42.5	59.5
		Lower Quartile	5	4	5	4	5	5	5	-	41.5	
	JS5813 Mathematics and Economics Program (MAEC)	Median	4	4	5	5*	5*	5	5	5	45	63
		Lower Quartile	4	4	5*	3	5	5	5	-	44	

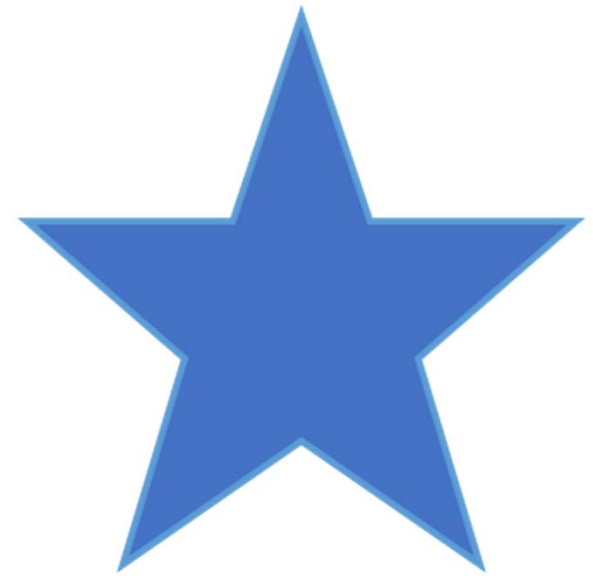
Remarks:

For weighted score calculation, please refer to HKUST JUPAS Calculator <https://join.ust.hk/jupas-score>.

Special Considerations

HKUST Scheme

- missed out 433233 by 1 level in 1 subject
- with at least 5 stars in total from ANY subjects
- Band A





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