

# BSc in Mathematics and Economics (MAEC)

The Mathematics and Economics (MAEC) program is jointly offered by the School of Science and the School of Business and Management. The program provides students with solid training in the fundamental theories of both mathematics and economics. The curriculum equips students with quantitative reasoning skills, conceptual understanding and the ability to effectively communicate in mathematics and in the language of economics and social sciences. This interdisciplinary degree program is suitable for students who seek to obtain a finance industry position that emphasizes quantitative skills or who intend to pursue postgraduate study in applied mathematics, economics, business or related areas such as operations research or management science.



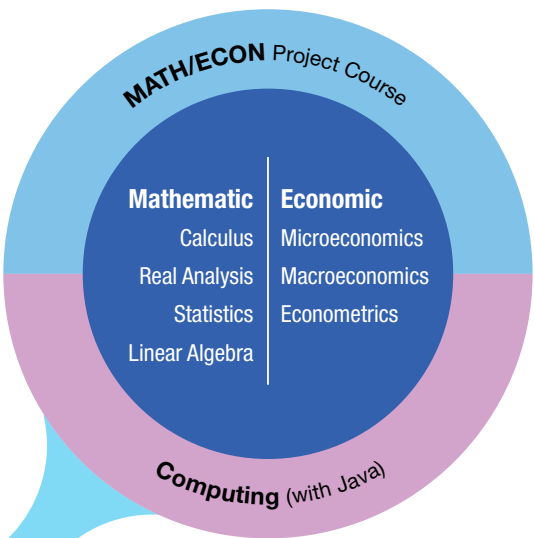
## Program Overview

- Unique undergraduate program in Hong Kong that combines modern economic theory with advanced mathematical skills, providing students an excellent foundation for a successful career in the business, finance, or public sectors.
- Broad-based education that stresses lifelong learning abilities; the balanced curriculum instills in students quantitative reasoning skills, conceptual understanding, and the ability to effectively communicate in mathematics and in the language of economics and social sciences.

## Program Structure

The 4-year MAEC program combines modern economic theory with advanced mathematical skills. The curriculum provides students with solid training in the fundamental theories of both mathematics and economics. Students will be equipped with quantitative reasoning skills, conceptual understanding, and the ability to communicate in mathematics effectively and the language of economics and social sciences. Below are the key components of the curriculum:

Subject Area	No. of Courses
Mathematics (Core)	7-8
Mathematics (Depth Electives)	2
Economic (Core)	6-7
Economic (Depth Electives)	2
Science Foundation	2
Accounting / Finance	2
Computing	1
University Common Core	10



## Intended Learning Outcomes

- Critically evaluate practical economic models and exercise sound economic judgment in applying mathematical and economic principles to achieve justifiable solutions and making effective decisions supported by analytical and quantitative techniques.
- Communicate quantitative and economic concepts and methods effectively to a range of audiences, both in oral and written forms.
- Be effective users of information technology and use statistical and econometrics software to deal with databases in conducting empirical analysis in business applications.
- Understand the professional and ethical responsibility and have informed ethical thinking based on rigorous quantitative and economic analysis.

## Enrichment Activities

Every year, the School of Science and the School of Business and Management run a broad spectrum of enrichment activities such as international exchange, career training and internship program, and social service projects. The goal is to help our students develop a global perspective as well as sharpen their interpersonal skills.

A MAEC student joined the WISE Singapore Study Tour, organized by the HKUST's Women In Science and Engineering (WISE) club.



Students enrolled under the joint-school MAEC program are eligible to:

- sign up for professional seminars and co-curricular programs organized by both Schools;
- join either School's international exchange program; and
- access the job banks and career services provided by both Schools.



A MAEC student participated in an activity of Alpha Kappa Psi, one of the oldest and largest business fraternity.

## Career Prospects

Career opportunities in the actuarial, banking and finance industry in Hong Kong are promising for those capable of applying mathematical tools to understand the financial markets and make economic forecasts. Graduates with an interdisciplinary degree are increasingly valued and needed in the job market, and tend to have more diverse career options than those majoring in Mathematics or Economics alone. A number of MAEC alumni have joined top-ranked financial institutions and multinational firms. Our MAEC graduates are equipped with sufficient background for entry into advanced/professional degree programs in economics, financial mathematics, statistics, and other business-related fields. Recent graduates have been admitted to PhD / Master's programs at leading universities worldwide.







## Words from MAEC Graduate

HKUST has proven its excellent reputation by delivering outstanding teaching quality and exciting university life. I am proud and honoured to be a part of this university, as it consistently provides me with boundless opportunities. As a MAEC student, I can strengthen my knowledge in areas I am interested in. This program offers a complete package that enables me to thrive and pursue my dream. Every journey here is worth it and I could not ask for more. Amazing professors, friendly staff, and supportive friends all in one positive environment is definitely the best place ever!

### Gerald GUNAWAN

BSc in Mathematics and Economic, Class of 2023

## Admissions Requirements

Students can apply for the MAEC program through direct choice in the JUPAS / Non-JUPAS admissions scheme, or apply for transfer into MAEC from the Science (Group A) program of the School of Science, or any Business School programs of the School of Business and Management after their first year of study. Students interested in MAEC are encouraged to include both *Mathematics and Economics (MAEC) program (JS5813)* and either *Science (Group A) program (JS5102)* or *Business and Management program (JS5300)* in their JUPAS / Non-JUPAS program choices.

### JUPAS

Program-based  
Entry (JS5813)

**HKDSE** applicants with one of:  
M1 / M2 / Biology / Chemistry /  
Physics / Economics

### Non-JUPAS

Applicants with international  
qualifications (**IBDP, GCEAL,**  
**SAT,** etc.) with one senior level  
subject from:  
**Mathematics / Biology /**  
**Chemistry / Physics /**  
**Economics**

### School-based Admissions

via SSCI or SBM

Students admitted into  
SSCI / SBM can declare  
MAEC after completing  
the first year of study.

## JOIN MAEC PROGRAM GO BEYOND YOUR LIMITS FIND TRANSFORMATION HERE

### School of Science – Undergraduate Admissions

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Email : [ugscience@ust.hk](mailto:ugscience@ust.hk)

Website : [science.hkust.edu.hk](http://science.hkust.edu.hk)

Facebook : @hkust.science

Instagram : @hkust.ug.science

### MAEC Program Office

Tel : (852) 2358 7445

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Website : [maec.hkust.edu.hk](http://maec.hkust.edu.hk)

MAEC website



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