Bachelor of Science (Hons) in Mathematics and Information Engineering

JUPAS CODE JS4733

MATHEMATICS

- Analysis
- Calculus · Algebra
- Discrete Math · Probability

INFORMATION SCIENCE

- Algorithms
- Data Structures
- Information Theory
- Signal Processing

- Machine Learning · Big Data
- Communications
- Networking
- Cyber Security

Objectives:

- Acquire Analytical Problem Solving Skills
- Ability to develop Innovative and Creative Solutions
- Attain Solid Foundation for Research

An interdisciplinary programme jointly offered by Department of Information Engineering and Department of Mathematics

www.mie.cuhk.edu.hk
Overview

Mathematics and Information Engineering (MIEG) is a selective interdisciplinary programme jointly offered by the Faculty of Science and the Faculty of Engineering, with the Department of Mathematics and the Department of Information Engineering being responsible for the management and operations.

This is a rewarding programme designed to equip gifted students with solid fundamental knowledge in mathematics, information and computer sciences. MIEG graduates go for postgraduate studies at the top universities worldwide or pursue independent research or careers in various sectors.

Programme Features

The programme places strong emphasis on research and encourages independent studies under the supervision of professors from either department. Students who excel in their studies will have opportunities to take up research work during their later years of study.

Admission Channels for Different Qualifications

For HKDSE applicants, admission is based on the results of your Best 5 subjects with the following subject weighting:

<table>
<thead>
<tr>
<th>Category</th>
<th>Subject Group</th>
<th>Min. Level</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core</td>
<td>English Language</td>
<td>4</td>
<td>x 1</td>
</tr>
<tr>
<td></td>
<td>Chinese Language</td>
<td>3</td>
<td>x 1</td>
</tr>
<tr>
<td></td>
<td>Mathematics (Compulsory Part)</td>
<td>5</td>
<td>x 2</td>
</tr>
<tr>
<td></td>
<td>Citizenship and Social Development</td>
<td>A (Attained)</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>Mathematics Extended Module I or II</td>
<td>5</td>
<td>x 2</td>
</tr>
<tr>
<td></td>
<td>Biology / Chemistry / Information and Communication Technology / Physics</td>
<td>4</td>
<td>x 1.5</td>
</tr>
<tr>
<td></td>
<td>All other Elective Subjects</td>
<td>4</td>
<td>x 1</td>
</tr>
</tbody>
</table>
Non-JUPAS (Local)

For local applicants with qualifications other than HKDSE, such as GCE-AL, IB, SAT/AP or other qualifications, please check the programme website for relevant information.

International

For non-local applicants who require a student visa, or entry permit to study in Hong Kong, and with overseas qualifications such as GCE-AL, International-AL, IB, and other high school qualifications from recognised institutions, please contact us for more information.

Mainland

Mainland China students who are current Gaokao candidates (应届高考) must apply through the National Colleges and Universities Enrolment System (全国普通高校统一招生计划)

Note: Applications of these two schemes will be assessed on a case-by-case basis.
Testimonials

WOO Pui Yung, Anna
2022 graduate
Currently a PhD student in CSE at University of Michigan.

Not only did I acquire a solid knowledge in areas such as communication systems and signal processing from the programme, but I also developed problem-solving skills and abilities to generate innovative solutions.

LIU Yinyin
2020 graduate
Currently an MSc student in EECS at UC Berkeley.

The mathematical bottom-up type of thinking and the engineering top-down type of thinking -- these two types of thinking trained us to be both creative and rigorous.

LI Chenghui
2018 graduate
First destination: MSc in IT at CMU. Currently a Research Engineer at Meta Reality Labs.

The MIEG programme is undoubtedly good for pursuing a higher degree. Most of the graduates can get some nice offers when applying for a Master or PhD degree after graduation.

YIN Zi
2013 graduate
First destination: PhD in EE at Stanford. Currently a Vice President at D. E. Shaw Group.

Good engineering capability is required for experimentation, and a sharp math mind is needed for the understanding and analysis of results. A complete research cycle consists of both aspects.

Contact Persons

Department of Information Engineering
The Chinese University of Hong Kong

Professor Cheuk Ting LI
ctli@ie.cuhk.edu.hk
3943-5156

Professor Chandra NAIR
chandra@ie.cuhk.edu.hk
3943-8467

Department of Mathematics
The Chinese University of Hong Kong

Professor Eric T.S. CHUNG
tschung@math.cuhk.edu.hk
3943-7972

http://www.mie.cuhk.edu.hk
admin-mieg@ie.cuhk.edu.hk