

# Mathematics and Information Engineering

Li Cheuk Ting

ctli@ie.cuhk.edu.hk



The Chinese University of Hong Kong

Programme Exploration Day  
25 May 2022

# About MIEG programme

## MIEG Programme

Jointly offered by the Faculty of Science and Faculty of Engineering

### Managed by

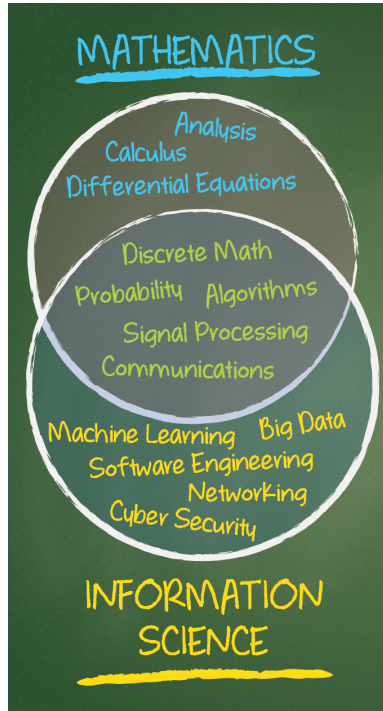
- ▶ Department of Mathematics (Faculty of Science)
- ▶ Department of Information Engineering (Faculty of Engineering)

### Curriculum:

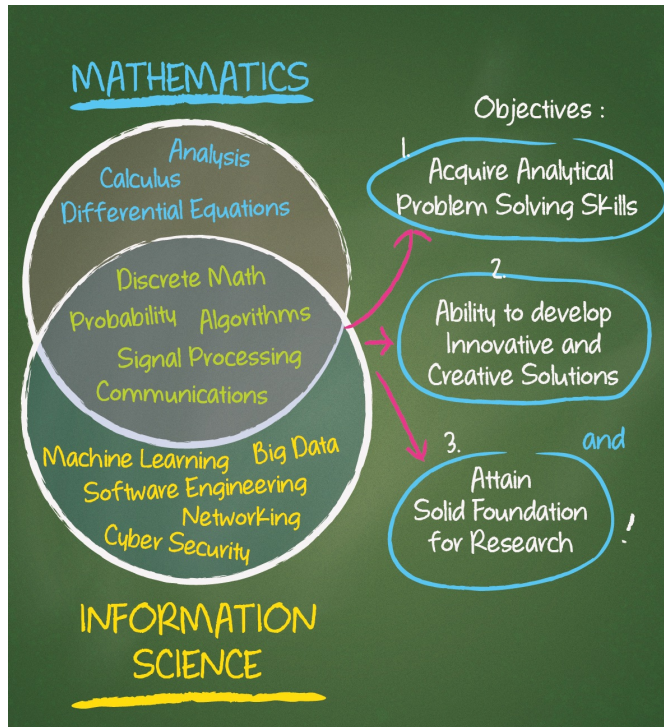
- ▶ Higher level math courses: along with math majors (rigorous treatment)
- ▶ Engineering Courses: mainly with IERG and some with CSCI students



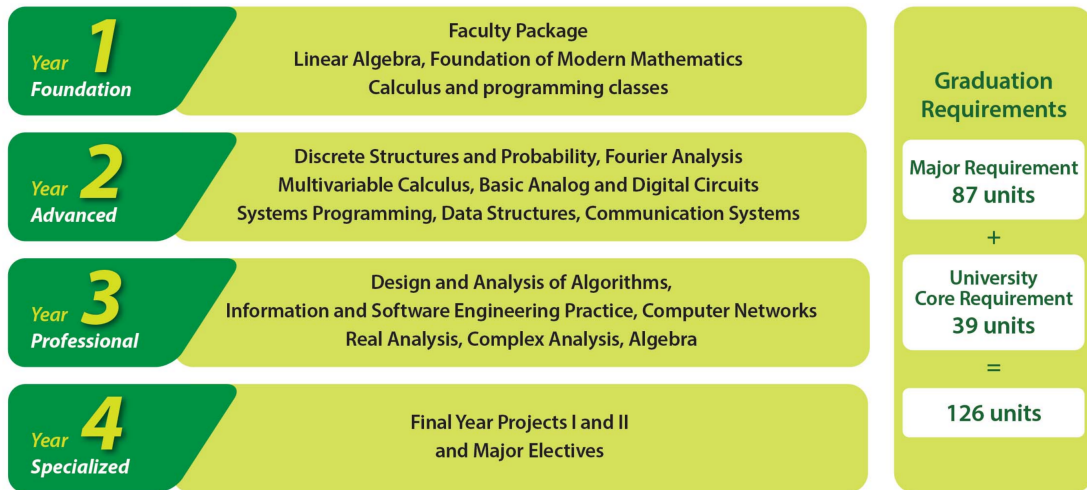
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# What does the curriculum look like?



80+ Major Electives for you to choose, from fields of *Big Data, Information Processing, Cyber Security, Internet Engineering, Telecommunications, Computer Networking, Software Engineering, and Mathematics.*



# What are some of the areas you can specialize in?

A wide range of **major electives** allow you to specialize in

- ▶ Communications Systems and Computer Networks
- ▶ Multimedia (Image and Video) Processing, Machine Learning (Artificial Intelligence)
- ▶ Coding and Information Theory
- ▶ Theory of Computation
- ▶ Data Sciences (Big Data), Optimization
- ▶ Formal and Abstract Mathematics



# To which graduate programs have some of the alumni gone?

Data (2010 - 2020)

## M.S./Ph.D. in Electrical (Information) Engineering

- ▶ U.C. Berkeley (2011, 2016, 2020), Stanford (2012, 2013, 2018), Caltech (2012, 2016), UIUC (2012), U.C. San Diego (2015), CMU (2016, 2017, 2018), Georgia (2019), Toronto (2019), Waterloo (2019), Notre Dame (2019), CUHK (2010-2020), U.T. Austin (2017), HKUST (2018)

## M.S./Ph.D. in Computer Science and Mathematics

- ▶ Georgia (2012), Caltech (2014), Stony Brook (2012), Stanford (2013), Wisc-Mad (2013), HKU (2015, 2016), HKUST (2016), CUHK (2016, 2017, 2018), CMU (2017), Rice (2017), U.C. San Diego (2017), Edinburgh (2020)

## M.S./Ph.D. in Finance

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## Remark

- ▶ More than **60 percent** of the alumni of this program goes to graduate schools
- ▶ Rest find jobs in a variety of industries like finance, programming, etc.





Institution	Programme	No. of Offers
Carnegie Mellon University	MS in Information Networking	1
	MS in Computer Vision	1
Princeton University	PhD in Electrical and Computer Engineering	1
Columbia University	MS in Computer Science	1
University of Maryland	PhD in Electrical Engineering	1
University of Illinois Urbana-Champaign	PhD in Computer Science	1
University of Michigan	PhD in Computer Science and Engineering	1
University of Chicago	MS in Computational and Applied Mathematics	1
University of California, San Diego	MS in Computer Science	1
Georgia Tech	PhD in Computer Science	1
Purdue University	PhD in Computer Science	1
EPFL	PhD in Computer and Communication Sciences	2
ETH Zurich	MS in Computer Science	1
CUHK	PhD in Information Engineering	1
	PhD in Systems Engineering and Engineering Management	1
	PhD in Computer Science and Engineering	1



# The secret behind the numbers

- ▶ You reap what you sow
  - In other words, the curriculum is **demanding**
- ▶ It is designed for **the top students** (Yearly intake:  $\approx 15$ )



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**Important:** If you are considering this programme, please read:

<http://www.mie.cuhk.edu.hk/advice.shtml>



# JUPAS Admission for MIEGN

- ▶ Secondary school students taking Hong Kong Diploma of Secondary School Examination (HKDSE) should apply for admission through the Joint University Programmes Admissions System (JUPAS)
- ▶ Choose "Mathematics and Information Engineering / MIEGN" of CUHK (JUPAS Code: JS4733) in JUPAS application



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Minimum Admission Requirements (HKDSE applicants for 2022-23 onwards):

Minimum admission requirements	Subject	Minimum Level	Subject Weight
4 Core Subjects	English Language	4	1
	Chinese Language	3	1
	Mathematics (Compulsory Part)	5	2
	Liberal Studies	3	0.5
2 Elective Subjects	Mathematics Extended Module 1 or 2	5	2
	Preferred subjects: Physics / Chemistry / Biology / Combined Science / Information and Communication Technology	4	Preferred subjects: 1.5
	Any other elective subjects		Any other subjects: 1



# Our advice

Your next step: gather lots of information

- ▶ From Alumni
- ▶ From Webpage: <http://www.mie.cuhk.edu.hk>
- ▶ From Prof. Chandra Nair, Programme Director (MIEG)
  - Email: [chandra@ie.cuhk.edu.hk](mailto:chandra@ie.cuhk.edu.hk)
  - Webpage: <http://chandra.ie.cuhk.edu.hk>
  - Office: SHB 811
- ▶ From me (send email to make an appointment)
  - My email: [ctli@ie.cuhk.edu.hk](mailto:ctli@ie.cuhk.edu.hk)
  - My webpage: <https://staff.ie.cuhk.edu.hk/~ctli/>
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## QUESTIONS

