Mathematics and Information Engineering (MIEG)

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Programme Sharing
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Introduction: MIEG

Bachelor of Science in Mathematics and Information Engineering

What is MIEG?

- An interdisciplinary programme jointly offered by
  - information engineering dept., Faculty of Engineering and
  - mathematics dept., Faculty of Science
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  - pursuing independent research or
  - careers that require mathematical sophistication (e.g. finance)
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Mission statement

To nurture and educate mathematically-trained engineers and researchers for the information world of today and tomorrow.

Website:  http://www.mie.cuhk.edu.hk

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Scary part

- MIEG students take required classes of both:
  - Information Engineering
  - Mathematics

- They have more required units than other programmes (naturally)

- The workload is traditionally higher than other programmes

- We keep admission to less than 20 students per year (selective)
Scary slide: *do not let it scare you though*..

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**Good part**
- Hard work comes with benefits
- Programme has an excellent reputation
  
  [Further study - alumni](mailto:chandra@ie.cuhk.edu.hk)
Changes under consideration

Student remarked that they would like

- more training in algorithms (computational aspects)
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The programme is under process\(^1\) of introducing the following required classes

- Discrete mathematics
- Design and Analysis of Algorithms

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- Discrete mathematics
- Design and Analysis of Algorithms

This would entail

- Units required for graduation to go up to 126 units
- Broader career and research opportunities

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Who is this major for?

This major is for students

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  - information science, and related disciplines such as:
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- who wants to pursue higher studies in
  - information science, and related disciplines such as:
    - computer science
    - electrical engineering
    - mathematics

- who enjoys understanding the mathematical foundations rather than memorizing them
- who enjoys to see the mathematics in applications rather than enjoy the abstract theory (not that there is anything wrong with it.. )

This major is

- not for students who came to CUHK (FoE) to get some degree without working hard
- not for students who dislike mathematics
- not for students who do not want a bright future

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Where can you get more information?

Good sources

- Listen to the next talk: Information Engineering (one half of MIEG)
  - where you learn about communications, networking, cybersecurity, big data etc.

- Go to the webpage: [http://www.mie.cuhk.edu.hk](http://www.mie.cuhk.edu.hk)
  - contains: study scheme, programme brochure, other relevant information..

- Contact me: chandra@ie.cuhk.edu.hk

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Not so good sources

- Immediate seniors (they are still in the process)
  - They have only partial information and have not yet got the rewards

- Online discussion groups
  - They are places to vent frustration and do not give a true picture

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Parting words: May you make the best choice for you (in the long run)

Thank You