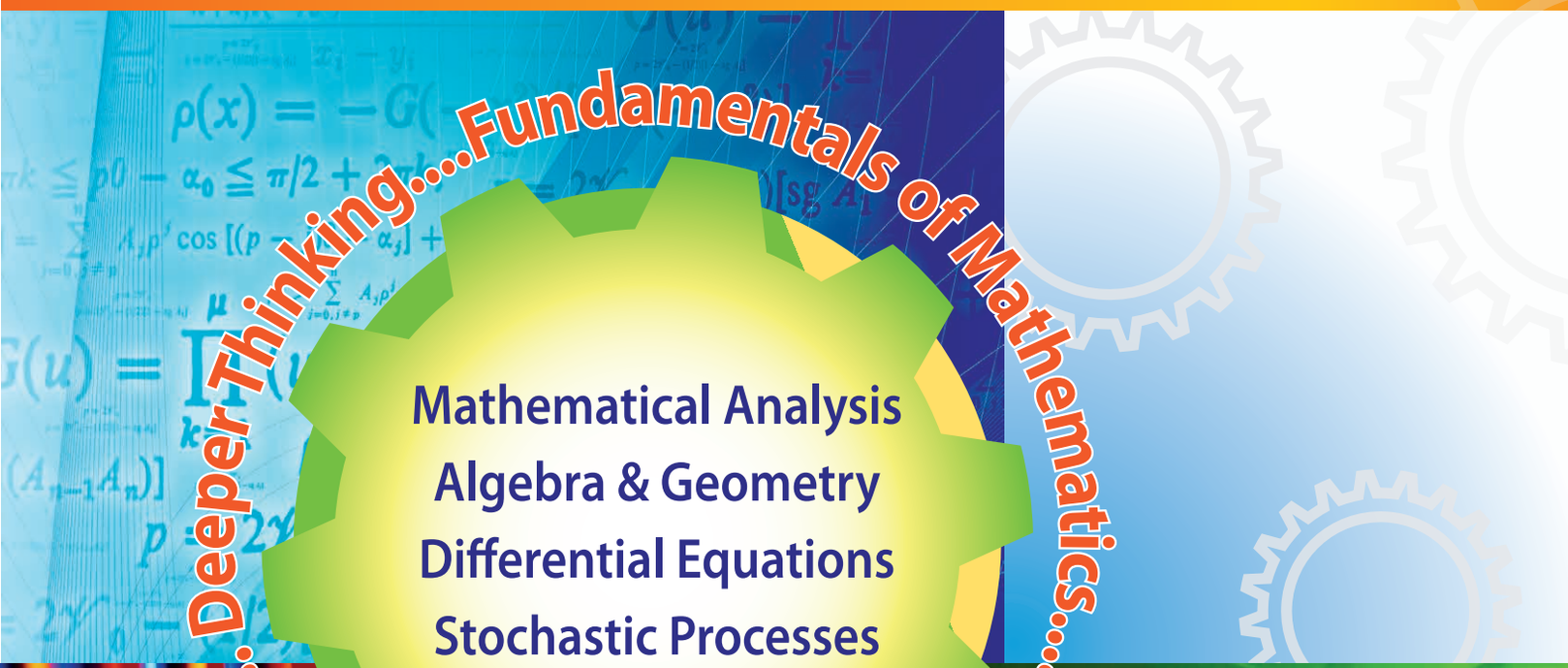
BSc in Mathematics and Information Engineering



...Deeper Thinking...Fundamentals of Mathematics...

Mathematical Analysis
Algebra & Geometry
Differential Equations
Stochastic Processes
Probability

Mathematical and Engineering Knowledge
Analytical Problem Solving
Innovative Solutions
Mathematical Modeling

Networking
Multimedia Processing
Communication Systems
Software Engineering
Cyber Security

...Broader Outcomes...

...Fundamentals of Information Engineering...

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

Mathematics and Information Engineering

This is an interdisciplinary programme jointly offered by the Faculty of Engineering and the Faculty of Science, with the Department of Information Engineering and the Department of Mathematics being responsible for the management and actual running of it. The programme is designed to equip students with fundamental knowledge in both mathematics and engineering, providing a solid foundation for further studies at the graduate school level or pursuing independent research or careers in various sectors.

Programme Features

This programme places strong emphasis on research and encourages independent studies under the supervision of professors from either departments. Students who excel in their studies will have opportunities to take up research work during their later years of study. A first-year student in this programme may follow the general Engineering study scheme or the "Enrichment Mathematics" study scheme.

Curriculum

	Information Engineering	*Mathematics*	*Wide Range of Electives*
	********** **Major Requirement including Faculty Package** (81 units) **********		
Year 4 Specialized	Final Year Project I Final Year Project II *plus Major Elective Courses*		Multimedia Coding & Processing Web-scale Information Analytics Simulation & Statistical Analysis Intro to Stochastic Processes Wireless Communications Optical Communications Digital Communications Applied Cryptography Cyber Security Graph Theory Numerical Analysis Linear Programming Mathematical Modeling Networks: Technology, Economics, & Social Interactions *and many more!*
Year 3 Professional	Computer Networks Information Engineering Lab Information & Software Engg Practice *plus Major Elective Courses*	Linear Algebra II Mathematical Analysis I Algebraic Structures Complex Variables with Applications	
Year 2 Advanced	Data Structures Signals and Systems Principles of Comm Systems / Lab *plus an Extra Foundation Course & Major Elective Courses*	Adv. Calculus I & II Introductory Probability Foundation of Modern Mathematics	
Year 1 Fundamental	Engineering Faculty Package or Enrichment Mathematics Study Scheme *plus Extra Foundation Courses*		
	********** **Plus University Core Requirement** ********** including English Language, Chinese Language, General Education, Physical Education, and IT Training.		

Admission

For further details, please refer to the brochure of the **Faculty of Engineering** or the **Faculty of Science**, or visit the websites at **http://www.erg.cuhk.edu.hk** or **http://www.math.cuhk.edu.hk**

Contact Persons / Enquiries

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