Engineering Doctorate (Engineering Management)

A Platform for Innovation Leaders

The EngD(EM) programme is for innovative CEOs, technical directors and elite senior engineering / operation managers in Hong Kong and mainland China. The programme aims to extend students’ creative thinking and discerning capability to apply innovative technologies and advanced processes and methods to meet the challenges of globalisation. Over 100 senior executives and engineering managers from successful industrial enterprises, consulting firms, service and engineering companies, R&D and educational institutes, and governmental organisations, have graduated from this EngD programme, creating an ever-widening network for engineering management, technological innovation, entrepreneurship and industry-university collaboration.
DEPARTMENT OF SYSTEMS ENGINEERING AND ENGINEERING MANAGEMENT (SEEM)

The Department aims to support Hong Kong's industries in meeting the technological and managerial challenges of the twenty-first century by engaging extensively in industrially relevant research and development activities, and by committing to closer research collaboration, executive development and consultancy activities with Hong Kong and mainland China's industrial sectors.

PROGRAMME AIMS

This programme aims to develop students’ creative thinking through tackling important strategic industrial projects and meeting the specific needs of industry. Students will pursue the study of engineering management and industrial research of a high order while carrying on with their professional duties. The originality and value of the students’ research will be assessed within their specific professional and industrial contexts. As professional activity is usually multi-disciplinary and business- and management-driven, the programme will include a wide variety of coursework on Engineering Management. The programme provides an integrated curriculum of theory, practice and research to develop professionals’ creative thinking and capabilities in the application of knowledge to solve important strategic problems in industry.

The Engineering Doctorate is an advanced professional doctorate degree. EngD graduates can use the title ‘Dr’ before their names.

WHAT YOU WILL BE STUDYING

The programme comprises a taught component and a research component.

Taught component

The taught component comprises 9 credit units of core courses and 12 credit units of elective courses. The taught courses available to EngD students comprehensively cover a mixture of technology, innovation management and experience to provide industry with competent and knowledgeable managers in the fields of technology and innovation.

Core courses

Industry is in great need of people who can implement new technologies and knowledge in business. The core courses are designed to equip students to meet the immediate needs of industry for the innovative application and implementation of state-of-the-art knowledge and technology.

- Integrative Engineering Management
- Research Methods in Engineering Management
- EngD Seminar
- Doctoral Thesis

Electives

- Advanced Design of Experiments and Taguchi Method
- Asset and Maintenance Management
- China Engineering Enterprise Management
- Engineering Economic Analysis
- Enterprise Strategy and Technology
- Estimation and Control of Random Dynamic Systems
- Forecasting and Control Using Regression, Time Series, and Dynamic Models
- Industrial Case Study
- Industrial Marketing Management for Engineers
- Management of Technological Innovation
- Managing Strategic Quality
- Marketing Strategy for Engineers
- Micro Systems Technology
- Modelling and Simulation in Enterprises
- Operations Management
- Project Management
- Quality Improvement: Systems and Methodologies
- Statistical Modelling and Design of Experiments
- Supply Chain Management
- Theoretical Underpinnings of Decision Making Under Uncertainty

Remarks: As the class sizes are relatively small, not all of the electives are available every year.

Research component

The research component comprises a thesis with a normal duration of three years.

HOW DO YOU GET IN?

Under normal circumstances, applicants should:

- hold a Master's degree in a related engineering discipline/profession (or equivalent qualification) from a recognised university; and
- have at least five years’ recent work experience at a senior level.

Equivalent qualifications mentioned above include relevant professional qualifications or other scholarly achievements recognised by the University.

English proficiency requirement

Applicants from a university where the language of teaching is not English should satisfy the following minimum English proficiency requirement:

- a TOEFL score of 550 (paper-based test) or 213 (computer-based test) or 79 (internet-based); or
- an overall band score of 6.5 on International English Language Testing System (IELTS); or
- band 6 in mainland China’s College English Test; or
- other equivalent qualifications.

GENERAL INFORMATION

Mode of study: Combined mode
Duration of study: 4-6 years (part-time)
Credit required: 57
Tuition fee: HK$7,260 per credit

APPLICATION

Applications for admission should be made online at: www.sgs.cityu.edu.hk/programme/ENGD(EM)

ENQUIRIES

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Some Courses Approved by CEF Up to HK$10,000 CEF Reimbursement