Bachelor of Engineering in Industrial Engineering and Management

“Putting down IELM as the first choice on my JUPAS form is a decision I will always be proud of. The course has fully equipped me with the essential elements for success in the business world. Our professors do not only have excellent reputations in the logistics industry and strong connections with professionals, but they are also my lifelong mentors giving me important advices on career and personal development. IEDA gives you the best before you enter the workplace!”

Carol Chan
(BEng IELM 2005, President of Session 2003-2004 of IEEMSS, HKUSTSU)
Head of Taiwan and Hong Kong Supply Chain, Sanofi

“The IEDA department offers world class programs for future academic and industry leaders who are enthusiastic about solving operations problems by systematic and scientific approaches. It provided me with best-in-class knowledge, and the opportunities of exchange program, global projects and industrial collaborations for the solid understanding of the best practices. The faculty members are not only famous for the breakthrough research but also committed to student development. IEDA is a research and development family for our next technology management generations.”

Daniel Mo
(BEng IELM 2003; MPhil IELM 2005; PhD IELM 2013)
Assistant Professor, Department of Supply Chain and Information Management, Hang Seng Management College

“Alumni

“In today’s corporate world, senior executives make business decisions based on objective justifications. Throughout the program, students were equipped with skills such as quantitative analysis and systematic thinking to analyze and quantify the business issues and to provide essential grounds for decision-making. IE Department had set a very good foundation for every student and equipped them with practical skill that they needed in their future careers.”

Ken Leung
(BEng IEEM, 1996)
Industrial Engineering Project Manager, Hong Kong Disneyland

“Industrial Engineering and Decision Analytics (IEDA) is the modern discipline of scientific management - it is the engineering of Making Smart Decisions.”

Department of Industrial Engineering and Decision Analytics
Tel: (852) 2358-7100 Email: ieug@ust.hk Website: ieda.ust.hk

Hong Kong is rapidly transforming into a knowledge-based economy. As one of the leading centers for world-class tertiary education, the department of IEDA is actively revamping its undergraduate program by adopting a modern, Decision Analytics approach. Our new program and courses are designed to train our graduates for high impact jobs in forward looking companies. The techniques for collecting and organizing real-world data, analyzing it intelligently, and using it to drive decision making models are central to our revamped program.

BEng in Industrial Engineering and Engineering Management

Our new curriculum adds predictive and prescriptive analytical tools, statistical models, machine learning algorithms, simulation, and creative modeling – which make it more in line with the modern economy. Building upon this foundation of techniques, you will learn domain specific knowledge in areas of Engineering Management or Logistics Management, ranging from operations planning and scheduling to transportation systems and policies, from supply chain management to quality control, and from product design to management of technology and innovation.

Financial Engineering Option

In addition to the major program, you could broaden your knowledge in the multidisciplinary field of financial engineering where engineering methodologies and quantitative tools are applied to solve various financial problems arising in practice. By declaring the Financial Engineering Option, you will be equipped with foundational knowledge including derivatives pricing, portfolio management, financial data analysis, and risk management in various financial markets, preparing for your career in finance-related areas in industry or pursuing a further degree in this field.

Bright Career Prospects

Our graduates will possess strong analytical skills as well as the ability to develop algorithms and simulation models for decision-making in designing, managing and improving operations of modern enterprises, and to provide optimal solutions to decision problems in logistics, production, and service operations, driven by real-world data. The transferable skills they have acquired enable them to find positions in the logistics and manufacturing sectors, especially focusing on careers related to scheduling, systems design, operations planning, quality management and performance analysis.
Industrial Engineers - Making Smart Decisions

BEng in Industrial Engineering and Engineering Management (IEEM)

Program Features
- Top engineering school in Hong Kong (QS World University Rankings by Faculty 2018)
- State-of-the-art and flexible curriculum
- Accredited by the Hong Kong Institution of Engineers (HKIE)
- Logistics & Transportation
- Manufacturing & Industrial
- Chartered Institute of Logistics and Transport in Hong Kong (CILTHK)
- Hong Kong Society for Quality (HKSQ)
- Six Sigma Green Belt Certification Program

IEEM Core (36 credits)
- University CORE Education (36 credits)
- Engineering Fundamentals (21 – 27 credits)

IEEM Professional/Area (21 credits)
- Logistics Management (LM) Area
  - Data Driven Supply Chain Management
  - Design of Logistics and Manufacturing Systems
  - Logistics and Freight Transportation Operations
  - Routing and Fleet Management
  - Transportation Systems
- Engineering Management (EM) Area
  - Computing in Industrial Applications
  - Ergonomics and Safety Management
  - Manufacturing Processes
  - Product Design
  - Quality Engineering

Options (6-9 Credits)
- Financial Engineering, Research

Minors (18 Credits)
- Business, IT, Entrepreneurship, …

Internships
- Many partner companies

Exchange
- USA, Europe, Singapore,…

Local Networking, Global Exposure

Mentorship Program
- Keep abreast of the industry trends and expand your professional network by getting in touch with successful industry leaders and IEDA alumni!

International Exchange Program
- Earn international exposure and broaden your horizons by taking part in the School of Engineering Exchange Program where you have chance to study in one of the top-notch engineering institutes across the globe.

Internship Program
- Earn practical working experience and better pave your career path by working as a summer intern or one-year placement in sizable companies.

Competitions
- Sign up for industry-sponsored contests to challenge yourself in applying theoretical knowledge into real-life business problems.

Career Opportunities
- Our graduates are managers, engineers, consultants and analysts who take up supervisory and managerial roles in various industries including:
  - Banking and finance
    - Citibank, Goldman Sachs, HSBC, …
  - Consulting firms
    - Accenture, McKinsey, TQM Consultants, …
  - Container & air cargo terminals
    - Cathay Pacific, HACTL, HIT,…
  - Engineering and technical services
    - MTR, Towngas,…
  - Global logistics
    - Damco, DHL, Kerry Logistics, Li & Fung, P&G,…
  - Information technology
    - Cisco, IBM,…
  - Others
    - 9%
- Business and Logistics Management 47%
- Information Technology 4%
- Banking / Finance 5%
- Engineering 35%

Source: Graduate Employment Survey 2017, Career Center, HKUST