Industrial Engineering and Decision Analytics (IEDA) is the modern discipline of scientific management - it is the engineering of making smart decisions.

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.

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.

BEng in Industrial Engineering and Engineering Management

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 Subject 2020)
- State-of-the-art and flexible curriculum
- Accredited by the Hong Kong Institution of Engineers (HKIE)
- Logistics & Transportation
- Manufacturing, Industrial & Systems
- Chartered Institute of Logistics and Transport in Hong Kong (CILTHK)

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
- Engineering Psychology
- Ergonomics and Safety Management
- Product Design
- Service Engineering and Management

*You can declare your areas (LM or EM) any time after you join IEDA

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

Minors (18 Credits)
- Business, IT, Entrepreneurship, …
- Many partner companies

Internships
- USA, Europe, Singapore,…

Exchange
- USA, Europe, Singapore,…

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
- Gain 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 letter 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.

Local Networking, Global Exposure

Exciting 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, HKT, …
  - Engineering and technical services: MTR, Towngas, …
  - Global logistics: Damco, DHL, Kerry Logistics, Li & Fung, P&G, …
  - Global manufacturers: Avery Dennison, Esquel, HiLo, …
  - Information technology: Cisco, IBM, …

Source: Graduate Employment Survey 2018, Career Center, HKUST