The BENG SEM major aims to nurture students’ analytical skills in understanding, analysing, managing and improving modern enterprises and systems, grounded in engineering principles and scientific methods.

An enterprise under consideration can be an engineering, business, governmental, or service-oriented organization. The targets of management and improvement can be the operations and processes within an enterprise, or the products and services offered by an enterprise. A BENG SEM student is trained to become an analytic and versatile graduate, capable of effecting positive impacts in these target areas in his or her organization.

In addition to the Core SEM curriculum, we offer two optional streams:

**Total Quality Engineering (TQE) Stream**
- Quality Engineering
- Reliability Engineering
- Assurance Systems
- Total Quality Management

**Data Analytics (DA) Stream**
- Statistics
- Data Science
- Computing and Modeling
- Decision and Risk Analysis

**Demand for Quality Engineers**
There is a strong demand for the quality engineering related posts in the industry. For instances, searching the Hong Kong JobsDB.com database, the figure of “quality” positions is always at the top among other engineering disciplines.

**Demand for Data Scientists**
“The United States alone faces a shortage of 140,000 to 190,000 people with analytical expertise and 1.5 million managers and analysts with the skills to understand and make decisions based on the analysis of big data.” – McKinsey (a major management consulting firm in the US), 2011

Contact us
Department of Systems Engineering and Engineering Management
Tel: 3442 9321
Fax: 3442 0173
Email: seemgo@cityu.edu.hk
## Bachelor of Engineering in Systems Engineering and Management (120 credit units)

### Major Requirement

<table>
<thead>
<tr>
<th>Year</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>Foundation: Introduction to Systems Engineering and Management</td>
</tr>
<tr>
<td>Year 4</td>
<td>Specialized Courses – Apply your knowledge: Product and Service Design and Innovation Professional Engineering Practice Individual Project 9-month Co-op Internship (Optional)</td>
</tr>
</tbody>
</table>

### Elective Courses (for Year 3 and 4)

**Data Analytics (DA) Stream (Optional)**

- At least take **FIVE out of the following electives**
  - Bayesian Analysis
  - Systems Modelling, Optimization and Simulation
  - Decision Analysis and Risk Management
  - Financial Engineering for Engineers
  - Business Analytics & Data Visualization
  - Computing Methods in Data Analytics
  - Data Mining

**Total Quality Engineering (TQE) Stream (Optional)**

- At least take **FIVE out of the following electives**
  - Product Testing and Certification
  - Occupational Health and Safety Management
  - Project Management
  - Quality Systems and Management
  - Process Monitoring and Inspection Techniques
  - Reliability Engineering
  - Statistical Design and Analysis of Experiments

### Other Electives

- Industrial Marketing for Engineers
- Capstone Project I
- Global Operations Management
- Directed Studies
- Facilities and Distribution Management
- Operations Management of Production and Service Systems

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**Student Exchange**
Multifaceted Learning in SEEM

EXCHANGE STUDY

- Opportunities for academic exchange to different countries including Austria, China, Finland, France, Korea, Singapore, Sweden, UK, the USA and more!

FLEXIBLE INTERNSHIP SCHEMES

- Co-operative Education Scheme (8 months internship in final year)
- Industrial Attachment Scheme (8-10 weeks summer internship)
- Overseas Internship [PES] (8-10 weeks internship in Australia, Canada, France, Germany, Ireland, Japan, Korea, Singapore, Thailand, the UK and the USA)
- Overseas Research Internship Scheme (14-18 weeks) in the USA and more!

SCHOLARSHIPS AND AWARDS

We support students with many scholarships and awards opportunities. Over 40 scholarships are awarded to SEEM students every year.

STUDENTS ACTIVITIES

- Student of the Year Awards
- Student Mentors Scheme
- Study Tours
- Company Visits
- Project Exhibitions / Competitions
- Career Talks
- Experience sharing by Graduates

Enquiry:
Tel: 3442-9321
Fax: 3442-0173
Email: seemgo@cityu.edu.hk
Website: www.cityu.edu.hk/seem
Career Opportunities

KWONG Wing Kwan Michelle
Supply Chain Trainee
The Swire Coca-Cola Hong Kong

NG Kwok Chaung
Airbus 320/1 Captain
Cathay Dragon

WONG Kam Kuen Theo
Assistant Engineer
Towgas

William Gunawan
KYC Specialist
J.P. Morgan Chase Bank

CHU Siu Hei Alvin
Quality Assurance Engineer
Hip Hing Construction Company Limited
(subsidiary of New World)

WONG Chun Hei Gess
Assistant Manager – Terminal Planning
Yantian International Terminals
Container Terminal

CHUI Ka Fai
Business Operation Trainee
Orient Overseas Container Line (OOCL)

POON Ka Ming
Production Engineer
Meyer Services Company Limited (Thailand)

CHAN Lok Sze Lucille
Associate Quality Engineer
Hasbro Far East Limited

WONG Cheuk Shan Mavis
Business Associate
Crystal Group

LEUNG Ming Jin Stephen
Officer, Planning, Maintenance & Engineering
Hong Kong Express Airways

PANG Mei Yan Mandy
Junior OPEX Manager, East Asia
Gato Gourmet Hong Kong Limited

TANG Ho Yi Horace
Assistant Manager – Finance Planning & Analytics
DBS Bank (Hong Kong)

HON Man Ho
Assistant Manager
Siemens Limited

TSANG Chi Ho
Regional Business Development Manager
Hiti