THE UNIVERSITY OF HONG KONG
Department of Industrial and Manufacturing Systems Engineering
Undergraduate Programmme

Programme Objectives:

1. **Breadth**: Graduates will acquire general knowledge in the related engineering and scientific fields, which is necessary for effective team work in multidiscipline technical groups and essential in the knowledge broadening process and life-long learning of all professional engineers.

2. **Depth:** Graduates will acquire an in-depth understanding of the fundamental prerequisite knowledge required for a professional career and for postgraduate studies in industrial engineering, logistics, and services engineering.

3. **Professionalism**: Graduates will learn to respect and abide by professional ethics, develop effective communication and leadership skills, and improve those social skills required by responsible and contributing members of the engineering profession and society.

Programme Learning Outcomes:

A. An ability to apply mathematical knowledge, scientific principles, information and communications technology, and the concepts of engineering appropriate to the degree discipline.
B. An in-depth understanding of and an ability to apply the core knowledge, including for design and conducting experiments and simulations, in industrial engineering, logistics, and services engineering.
C. An ability to identify, analyse, and propose solutions to related operational problems.
D. An ability to plan, design, and manage logistics, manufacturing and service systems.
E. An ability to contribute to resources management and systems integration and optimisation.
F. An ability to recognise and explore entrepreneurial opportunities in an ever-changing business environment, and to take on professional leadership and responsibilities.
G. An ability to apply innovative technologies in products and processes design/improvement.
H. An ability to appreciate the need and recognise the importance of professional and ethical responsibility and behaviour.
I. An ability to understand the impact of engineering solutions in a global and societal context, especially the importance of health, safety, and other factors that can impact the internal and external environment.
J. An ability to apply the techniques and skills of modern engineering to a broad range of engineering problems, as expected of an engineering graduate.
K. An ability to communicate effectively in teamwork, in multi-disciplinary collaboration, and in leadership and company representative roles.
L. An appreciation of the need for and the ability to engage in the life-long learning process required for professional development and for maintaining competency.