

The Hong Kong University of Science and Technology

UG Course Syllabus

Introduction of Industrial Engineering and Decision Analytics

IEDA2010

3 Credits

Name: Xuan QIU

Email: xuanqiu@ust.hk

Office Hours: Tuesdays 2-3pm

Course Description

In today's competitive world, how well a company manages its resources to provide goods or service plays a critical role in the company's success. To manage the critical performance dimensions of companies—cost, quality, speed, and flexibility, and to identify key trade-offs, it is essential for industrial engineers and managers to understand the physical and information processes that are essential in producing and delivering goods and services to customers. This course is designed to develop both tactical skills and high-level insights needed by every industrial engineer and general manager. It consists of two parts. The first part introduces basic industrial engineering analytical tools, such as optimization and probability. The second part introduces the practical concepts of industrial engineering, such as project management, inventory management, revenue management, and forecasting.

Assessments:

Assessment Task	Contribution to Overall Course grade (%)	Due date*
Homework assignments	15%	Week 2, Week 5, Week 9, Week 13
In-class activities	5%	Week 10
Mid-Term	35%	Week 8
Final examination	45%	University Examination Week

*Please check the updated due dates of homework assignment submissions on canvas

Required Texts and Materials

N/A