The Hong Kong University of Science and Technology

UG Course Syllabus

Routing and Fleet Management

IEDA3410

3 Credit(s)

Prerequisite: IEDA 3010 Prescriptive Analytics

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Course Description

Applications and algorithms for network optimization, vehicle routing, shortest path problems, maximum flow problems, matching models and dynamic vehicle allocation.

Learning Outcomes

Formulate and solve shortest path problems

Formulate and solve TSP/VRP problems

Formulate and solve max flow problems

Formulate and solve min-cost network flow problems

Formulate and solve spanning tree problems

Apply the above skills to solve real-world complex logistics problems

Assessments:

Assessment Task	Contribution to Overall Course grade (%)
Homework	20%
Project	30%
Quiz 1	15%
Quiz 2	15%
Quiz 3	20%

Grading: Homework: 20%, Project: 30%, Quiz 1: 15%, Quiz 2: 15%, Quiz 3: 20%

Homework: There are three homework assignments.

- Late homework is subject to 30% deduction as penalty, if submitted before the solution is released. No late homework is accepted after the solution is released.

- Homework can be done after discussing with your friends, but you have to write it in your own words, and should be able to explain your answers when requested. Simply copied homework is not graded.

Projects: Details will be announced later.

Exams: There are three quizzes. Each quiz has a focused coverage, format to be announced.

Quiz schedule: TBD.

Required Texts and Materials

Lecture Notes, uploaded to canvas