

Syllabus
IEDA 3410 Routing and Fleet Management
Fall 2023

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Materials

Lecture Notes uploaded to canvas.ust.hk

Textbook: R.K. Ahuja, T.L. Magnanti, and J.B. Orlin, *Network Flows: Theory, Algorithms, and Applications*, Prentice Hall, 1993.

References: F.S. Hillier, and G.J. Lieberman, *Introduction to Operations Research* (mainly Chapter 14), 10th edition, McGraw Hill, 2015.

Learning Outcomes and Corresponding Topics:

- 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

Grading: Homework: 20%, Project: 30%, Quiz 1: 15%, Quiz 2: 15%, Quiz 3: 20%
There is no final exam.

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: Course project is group based. Details will be announced later.

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

Quiz schedule: TBD.