Q781
Management Science Research Issues II
Fall 2021 Course Outline

Operations Management Area
DeGroote School of Business
McMaster University

COURSE OBJECTIVE

This PhD research course will build on what we covered in Q780 (i.e., Management Science Research Issues I), and will include readings from topics related to Ms. Zahra Mashayekhi's research interests. To that end, we will develop an understanding of "Rail-Truck Intermodal Transportation", "Disruption in transportation systems" and "Hazardous Materials". A number of peer-reviewed works would be discussed at the weekly meetings, which in turn will help identify gaps and develop possible research questions for the PhD thesis.

INSTRUCTOR AND CONTACT INFORMATION

Dr. Manish Verma
Associate Professor
mverma@mcmaster.ca
Office: DSB 415
Tel: (905) 525-9140 x 27438
Classroom and Time: DSB 415 (Fridays 1:00pm to 4:00pm)

COURSE DESCRIPTION

This course provides an exposure to the core readings, including latest works, in management science that are pertinent to the research interests of the student.

REQUIRED COURSE MATERIALS AND READINGS

There will be weekly meetings to discuss the pertinent works. Ms. Mashayekhi is expected to synthesize the readings into a comprehensive document that would contain the critical review of the pertinent literature of the three areas, and a discussion of the possible gaps in the literature and clear articulation of the possible research questions. The document can include any background and/or developmental works undertaken during the course.

EVALUATION

Class Discussion	40%
Written Document	60%
Total	100%

Conversion

At the end of the course your overall percentage grade will be converted to your letter grade in accordance with the following conversion scheme.

LETTER GRADE	PERCENT
A+	90 - 100
A	85 - 89
A-	80 - 84
B+	75 - 79
B	70 - 74
B-	60 - 69
F	00 - 59

Tentative Meeting Schedule

Weeks	**Topics**
1 to 4	Disruption in fixed facilities and transportation systems
5 to 8	Managing risk of intermodal hazmat shipments
9 to 11	Stochastic Programming & Robust Optimization
12 and 13	Artificial Intelligence and Machine Learning in transportation problems

Ms. Zahra Mashayekhi is expected to:

- collect the relevant works on each topic and organize them in folders in mac drive / google drive;
- share the folders with the instructor;
- discuss the relevant works at the weekly meetings.

X------X------X