

IE482 Humanitarian Logistics Spring 2017-2018

Course Description

This course will provide an introduction to some important problems with societal impact and explore how OR/MS tools can be used in addressing those problems. Some of these problems are related to meeting the ongoing needs of the society, such as ambulance assignment and routing, location of public service facilities (e.g., fire stations and community health centers), delivery of meals to senior citizens, delivery of blood to hospitals, and public transportation. In addition to these ongoing needs, OR/MS tools can also have a tremendous impact in preparing for, responding to, and recovering from disasters. The aim of this course is to provide students with an understanding of humanitarian operations by introducing the context in which they take place, the organizations (UN Humanitarian agencies, NGOs, public and private sector), and the activities and challenges in the supply chain for the procurement, delivery, warehousing and distribution of the aid.

Instructor

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Teaching Assistant

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Course Website

<https://courses.ie.bilkent.edu.tr/ie482/>

Announcements and course related material (e.g., lecture notes and project assignments) will be posted on the web. Students are responsible to regularly check the website and not miss any activity/information.

Grading

Presentations	17 %
Projects	43 %
Final Exam:	35 %
Class Participation:	5 %

FZ Rule

FZ grade is assigned when either one of the following happens:

- One of the projects is less than 30%.
- One of the presentations is less than 30%.
- If project has multiple parts, one of the parts is not submitted.

Course Outline

Please note that the schedule provided below is tentative, and the instructor reserves the right to make any necessary changes.

Wk	Topics Covered
1	Introduction to general concepts
2	Location model applications
3	Hierarchical Location, Preventive Healthcare, Big Depot Project
4	NGOs, Disasters
5	Shelter Location, Malaria
6	Broccoli Project
7	Routing Models
8	Routing Models
9	Organ Transplantation Logistics
10	Damage Assessment
11	Article Presentations
12	Blood Logistics
13	Earthquake Project
14	Review