

The Hebrew University of Jerusalem

Syllabus

INTRODUCTION TO OPERATIONS RESEARCH - 65520

Last update 19-08-2020

HU Credits: 3

Degree/Cycle: 1st degree (Bachelor)

Responsible Department: Hotel, Food & Tourism Management

Academic year: 0

Semester: 1st Semester

Teaching Languages: Hebrew

Campus: Rehovot

Course/Module Coordinator: Dr. Yizhaq Minchuk

Coordinator Email: Yizhaq.Minchuk@mail.huji.ac.il

Coordinator Office Hours: mon. 16-17, by appointment

Teaching Staff:

Dr. Yizhak Minchuk,
Mr. Achiya Cohen

Course/Module description:

Techniques and models for managerial decision making, especially for the allocation of scarce resources to obtain maximum utility, e.g. profit. The course deals with decision making models, formulation and solution of linear programming problems, and models for planning service systems and their evaluation.

Course/Module aims:

The course object is to provide tools for formulation, solving and implementation of mathematical models, used for analysis of complex problems in industry and management. Students will know how to build models, use methods and algorithms to solve them, and use suitable computer programs.

Learning outcomes - On successful completion of this module, students should be able to:

Familiar with basic concepts and models for decision making, linear programming and queuing systems,
Analyze the design, management
Evaluate such systems

Attendance requirements(%):

20

Teaching arrangement and method of instruction: lectures and exercises

Course/Module Content:

Introduction to Operations Research
Linear Programming
Introduction to Decision Theory
Introduction to Game Theory
Systems Analysis Services

Required Reading:

Articles

Additional Reading Material:

1. Hillier and Liebermann: Introduction to Operations Research.
2. Wagner: Principles of Operations Research.

Course/Module evaluation:

End of year written/oral examination 65 %

Presentation 0 %

Participation in Tutorials 0 %

Project work 0 %

Assignments 10 %

Reports 0 %

Research project 25 %

Quizzes 0 %

Other 0 %

Additional information:

-