

The Hebrew University of Jerusalem

Syllabus

Quantitative Methods in Management - 55945

Last update 01-09-2024

<u>HU Credits:</u> 3

Degree/Cycle: 1st degree (Bachelor)

Responsible Department: Business Administration

<u>Academic year:</u> 0

Semester: 1st and/or 2nd Semester

<u>Teaching Languages:</u> Hebrew

<u>Campus:</u> Mt. Scopus

Course/Module Coordinator: Dr Binyamin Oz

<u>Coordinator Email: b.oz@huji.ac.il</u>

Coordinator Office Hours:

Teaching Staff:

Dr. Binyamin Oz, Mr. Nevo Taaseh

Course/Module description:

The course presents quantitative methods and techniques that aid a manager in decision making.

Course/Module aims:

Present quantitative models and techniques as a tool for facilitating decision making. The course will include the following topics: linear programming formulation, graphical solution, computerized solution (SOLVER) and sensitivity analysis, Special problems in linear programming and integer programming, Project management, decision theory, decision trees, value of information, simulation.

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

Formulate decision making problems as a mathematical model and solve them.

<u>Attendance requirements(%):</u> 80%

Teaching arrangement and method of instruction: Presentations and class discussions.

Course/Module Content:

Decision theory, decision trees, value of information, linear programming formulation, graphical solution, computerized solution and sensitivity analysis. Special problems in linear programming and integer programming. Project management, simulation.

<u>Required Reading:</u> Practical Management Science Authors: Winston and Albright Publisher: Duxbury

Additional Reading Material:

<u>Grading Scheme:</u> Written / Oral / Practical Exam 100 %

Additional information:

Prerequisites: A passing grade in first year courses in economics, mathematics and statistics.

Course requirements: 70% homework, 70% quizzes. Exercises that are submitted late will not be registered. Midterm exam using SOLVER or Lindo software in the middle of the semester. Homework, midterm and quizzes are condition to take a final exam. End of semester exam 100% of the grade.