

The Hebrew University of Jerusalem

Syllabus

Production Scheduling - 55895

Last update 07-09-2020

HU Credits: 3

Degree/Cycle: 2nd degree (Master)

Responsible Department: Business Administration

Academic year: 0

Semester: 1st Semester

Teaching Languages: Hebrew

Campus: Mt. Scopus

Course/Module Coordinator: Prof Gur Mosheiov

Coordinator Email: msomer@huji.ac.il

Coordinator Office Hours: Monday 18:00-19:00

Teaching Staff:

Prof Gur Mosheiov

Course/Module description:

Learning basic Scheduling Theory, introduction of classical problems, complexity, exact algorithms, heuristics, open problems and advanced topics in scheduling.

Course/Module aims:

To enable students handling a scheduling problem - identify its complexity, introduce a solution algorithm, and evaluate it theoretically and/or test it numerically.

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

When facing a scheduling problem, a student should be able to identify its complexity, and accordingly to suggest and evaluate (or test numerically) a solution procedure.

Attendance requirements(%):

Not required.

Teaching arrangement and method of instruction: Frontal lectures.

Students are required to hand in a home-assignment every week.

Project presentation in class at the end of the course.

Final exam.

Course/Module Content:

Basic complexity;

Commonly used objective functions: makespan, flowtime, total tardiness, etc;

Single machine problems;

Parallel machine problems;

Shops;

Assignment problems;

Dynamic programming techniques;

Heuristics;

Planning and performing numerical studies.

Required Reading:

Text book:

"Scheduling: theory, Algorithms and Systems"

Michael Pinedo.
Prentice Hall

Additional Reading Material:

Every student is required to read a number of papers while preparing his/her project.

Course/Module evaluation:

End of year written/oral examination 50 %

Presentation 0 %

Participation in Tutorials 0 %

Project work 0 %

Assignments 0 %

Reports 0 %

Research project 50 %

Quizzes 0 %

Other 0 %

Additional information:

not relevant.