The Hebrew University of Jerusalem

Syllabus

Seminar in Analytics - 55865

Last update 13-10-2024

<u>HU Credits:</u> 4

<u>Degree/Cycle:</u> 2nd degree (Master)

<u>Responsible Department:</u> Business Administration

<u>Academic year:</u> 0

<u>Semester:</u> 2nd Semester

<u>Teaching Languages:</u> Hebrew

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

<u>Course/Module Coordinator:</u> Prof. Nicole Adler

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

<u>Coordinator Office Hours:</u> Sunday 14:00-15:00

<u>Teaching Staff:</u>

Prof Nicole Adler

Course/Module description:
This seminar will explore the concepts of benchmarking, productivity analysis, and performance measurement, focusing on how they can be leveraged to enhance organizational products and processes. Benchmarking—the global search for industry best practices—has gained traction across sectors but remains underutilized due to a lack of robust support tools and methodologies. Through this course, students will engage with cutting-edge frontier estimation techniques, grounded in economic theory and quantitative methods, to build a strong foundation for process improvement and benchmarking. Emphasis will be placed on practical applications and case studies, ensuring a blend of theoretical insights and real-world relevance.

Course/Module aims:
You will learn to read, analyze and present a paper in the field of operations research / analytics. In addition, you will learn to plan and perform research and to write a scientific paper. The question can draw from your workplace, hobbies or interests - this is entirely up to you. I dare you to find a subject that has not yet been analyzed in the literature!

Learning outcomes - On successful completion of this module, students should be able to:
By the end of the course, you will be able to:

Analyze open-ended problems, design suitable models, and gather relevant data.
Test and validate solutions using quantitative methods.
Draw logical conclusions based on data analysis.
Effectively communicate insights and recommendations grounded in solid research.

Attendance requirements(%):

Teaching arrangement and method of instruction: Lectures, presentation of your research and active participation in class discussion. The research will be based on an open theoretical problem or an application.

Course/Module Content:
This course focuses on developing analytical models to identify best-practice units within a group and establish metrics to evaluate both their leadership and the

inefficiencies of underperforming units. These quantitative methods provide a systematic approach that has consistently yielded valuable insights and measurable results across both the public and private sectors. By integrating theory with real-world applications, the course demonstrates how data-driven strategies can drive performance improvements and operational excellence.

<u>*Required Reading:*</u>
Benchmarking with DEA, SFA, and R., by Bogetoft, Peter, Otto, Lars

<u>*Additional Reading Material:*</u>

<u>*Grading Scheme:*</u>
Essay / Project / Final Assignment / Home Exam / Referat 60 %
Active Participation / Team Assignment 10 %
Presentation / Poster Presentation / Lecture 30 %

<u>*Additional information:*</u>