האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

Let the Data Talk: Creating a Data Based Business Strategy - 55988

Last update 27-12-2023

HU Credits: *3*

Degree/Cycle: *2nd degree (Master)*

Responsible Department: *Business Administration*

Academic year: *0*

Semester: *1st Semester*

Teaching Languages: *English and Hebrew*

Campus: *Mt. Scopus*

Course/Module Coordinator: *Dr. Sarit Weisburd*

Coordinator Email: *sarit.weisburd@mail.huji.ac.il*

Coordinator Office Hours: *by appointment*

Teaching Staff:

Dr. Weisburd Sarit

Course/Module description:

This course focuses on equipping students with advanced analytical skills to identify and measure causal relationships in the context of business strategy. The course covers various methods and techniques used in causal inference, emphasizing their application in real-world business scenarios. Students will learn to design and execute experiments, analyze observational data, and draw reliable causal conclusions to inform strategic decision-making.

Course/Module aims:

In today's business world, we are experiencing an explosion in the availability of data. It has become increasingly common to track the entire path of the purchase experience- from search through usage, as opposed to an aggregate summary of firm sales. This seminar advanced the topics covered in the course "Data Analysis for Decision Making", it is designed to give students hands-on experience with using the data-analysis tools learned in this course alongside theories of business strategy to conduct original research. Our focus will be on applying causal inference tools to think carefully about the questions we ask of data and how we interpret the results. Topics covered in this course include hands-on data cleaning, data visualization, regression analysis, and hypothesis testing.

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

1. Understand the importance of data analysis and causal inference in strategic decision making and gain knowledge of different causal inference methods and their strengths and limitations.
2. Develop skills in conducting data cleaning and exploratory data analysis to identify patterns and trends in existing data, as well as designing and conducting experiments that will provide an opportunity to identify causal relationships.
3. Apply causal inference methods to business scenarios and evaluate their implications for strategy development.
4. Enhance critical thinking and problem-solving abilities in the context of causal inference in business strategy.
5. Communicate data insights and strategies effectively to stakeholder

Attendance requirements(%):

80

Teaching arrangement and method of instruction:

Course/Module Content:

I. Introduction
II. Data Cleaning and Exploratory Data Analysis
III. Inference and Regression Models
IV. Communicating Data Insights and Strategies

Required Reading:

1. Angrist & Pischke – Chapter 1
2. Bojinov, I., Chen, A., & Liu, M. (2020). The Importance of Being Causal. Harvard Data Science Review, 2(3). https://doi.org/10.1162/99608f92.3b87b6b0 (https://hdsr.mitpress.mit.edu/pub/wjhth9tr/release/3)
3. Jan 25, 2022 Science | Causal Machine Learning | Microsoft Research Summit 2021

Additional Reading Material:

Grading Scheme:

Essay / Project / Final Assignment / Home Exam / Referat 45 %
Presentation / Poster Presentation / Lecture/ Seminar / Pro-seminar / Research proposal 20 %
Active Participation / Team Assignment 5 %
Submission assignments during the semester: Exercises / Essays / Audits / Reports / Forum / Simulation / others 30 %

Additional information: