

**שם הקורס**

שיטת מחקר באינטראקציית אדם-מחשב

מרצה

ד"ר ערן טוך

סמסטר

א'

דרישות הקורס

קורס מבוא לסטטיסטיקה

הרכב הציון הסופי

- Final project (50%)
- Research assignments (45%)
- Active participation in class (5%)

מבנה הקורס

נושא השיעור ותכני השיעור (מטלות, רשימת קריאה, משימות וכיו"ב)	תאריך / מס' שיעור
Introduction: the craft of empirical research and HCI. Critically reading read research literature and translating general research objectives based on gaps in theory and on practical problems to specific and quantitative research questions	1
Judging different types of research questions, such as ones that aim to uncover causal relations versus ones that aim to discover patterns. Analyzing how various types of research questions can be addressed with different methods. We will give specific attention to reproducibility and ecological validity of research methodologies.	2
User experience research and contextual inquiry. How to understand users and technology through ethnographic and qualitative methods	3
Measuring humans in action: how can we measure human performance and systems usability.	4
Experimental design: how to design experiments, carry out power law analysis, and control for side effects	5
Data collection: what are the types of data we can collect, how to create questionnaires, statistical power, and sample-size estimation.	6
Analyzing experimental data: how to test basic hypotheses with statistical tests	7
Advanced experimental data analysis: factor analysis and repeated measures	8
Analyzing large-scale datasets of human behavior with model fitting	9
Casual models: how to derive causal models from observational data	10
Writing research results: how to write, visualize, and create scientific papers	11
Invited Lecture	12



Students' Presentations

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קריאת חובה

Jonathan Lazar, Jinjuan Heidi Feng and Harry Hochheiser, Research Methods in Human-Computer Interaction, Wiley; 2nd edition (2017). (**Course book**)

קריאת רשות

Tom Tullis & Bill Albert. Measuring the User Experience: Collecting, Analyzing, and Presenting Usability Metrics. Morgan Kaufmann Publishers, 2008.

Alan Dix, Janet Finlay, Gregory Abowd & Russell Beale. Human-Computer Interaction. 3rd Edition. Prentice Hall, 2004.

הערות