



## *The Hebrew University of Jerusalem*

### *Syllabus*

## **ADVANCED STATISTICAL MODELS B - 52805**

*Last update 16-03-2021*

*HU Credits:* 5

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

*Responsible Department:* Statistics

*Academic year:* 0

*Semester:* 2nd Semester

*Teaching Languages:* Hebrew

*Campus:* Mt. Scopus

*Course/Module Coordinator:* Pavel Chigansky

*Coordinator Email:* [pavel.chigansky@gmail.com](mailto:pavel.chigansky@gmail.com)

*Coordinator Office Hours:* by appointment

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Teaching Staff:

Prof Pavel Chigansky,  
Ms. yulia slavutsky

Course/Module description:

Introducton to nonparametric statistics

Course/Module aims:

Learning the basic principals and methods of nonparametric statistics

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

Basic knowledge in nonparametric statistics, inlcuding theory and methods

Attendance requirements(%):

None

Teaching arrangement and method of instruction: Lectures and Exercise Sessions

Course/Module Content:

Estimation of distribution  
Estimation of statistical functionals and substitution estimators  
Bootstrap method  
Kernel estimators  
Local polynomial estimators  
Projection estimators  
Wavelets estimators  
Splines estimators  
Bayesian estimators  
Goodness-of-fit tests  
Tests based on ranks

Required Reading:

none

Additional Reading Material:

Additional recommended reading material will be distributed over the course of

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*the semester*

*Course/Module evaluation:*

*End of year written/oral examination 80 %*

*Presentation 0 %*

*Participation in Tutorials 0 %*

*Project work 0 %*

*Assignments 0 %*

*Reports 0 %*

*Research project 0 %*

*Quizzes 20 %*

*Other 0 %*

*Additional information:*

*The exam will take place in class in the usual way if possible*