האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

# *The Hebrew University of Jerusalem*

## *Syllabus*

# *Statistical Programming - 76643*

*Last update 03-11-2015*

*HU Credits: 2*

*Degree/Cycle: 1st degree (Bachelor)*

*Responsible Department: programming instruction unit*

*Academic year: 0*

*Semester: 2nd Semester*

*Teaching Languages: Hebrew*

*Campus: E. Safra*

*Course/Module Coordinator: Roie Knaanie*

*Coordinator Email: roie.knaanie@gmail.com*

*Coordinator Office Hours: See moodle*

*Teaching Staff:*

*Course/Module description:*
*Introduction to Statistics.*
*Probability and distributions.*
*Estimation and*
*Confidence interval.*
*T-Test*
*F test*
*ANOVA*
*Multi variables Regression*

*Course/Module aims:*
*Using Statistics*
*in SPSS and Excel to analyze data*

*Learning outcomes - On successful completion of this module, students should be able to:*
*Analyse data using SPSS and Excel*
*Summarize data using SPSS and Excel*
*Compute descriptive statistics on numerical data*

*Apply the statistical argument to the outcome of a quantitative investigation*
*Carry out commonly used bivariate tests of difference*

*Use the basic form of the general linear model in SPSS and Excel*
*Use SPSS to conduct T-test, and Analysis of Variance.*
*Using Multi variables Regression Analysis.*

*Attendance requirements(%):*
*0*

*Teaching arrangement and method of instruction: Frontal lectures and exercises in computers labs*

*Course/Module Content:*
*Excel Math &*
*Statistical functions. Statistical data analysis.*
*Graphical information display.*
*Statistics bases*

*Probability and distributions.*
*Estimation and CI.*
*T-Test.*
*Regression Analysis.*

*SPSS -*
*Data definition.*
*Data file manipulation. Missing values.*
*Estimation.*
*Confidence interval calcultions.*
*T-Test*
*Pairwise T-test*
*F test*
*ANOVA - One Way Analysis of Variance:*
*Contrasts and*
*Post hoc analysis.*
*Multi variables Regression Analysis.*

*Required Reading:*
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*Additional Reading Material:*
*Introduction to Statistics*
*by Ruth Beyth-Marom*

*Course/Module evaluation:*
*End of year written/oral examination 100 %*
*Presentation 0 %*
*Participation in Tutorials 0 %*
*Project work 0 %*
*Assignments 0 %*
*Reports 0 %*
*Research project 0 %*
*Quizzes 0 %*
*Other 0 %*

*Additional information:*
*The course is for M.Sc students in Chemistry, and 2nd or 3rd year students in B.Sc.*

*75% Exercises submission*