

**University of Haifa**  
**The Graduate School of Management**  
**Quantitative Methods for Business**  
**(International – 4805 / Green 8100)**

Dr. Haggai Kupermintz [kuperh@edu.haifa.ac.il](mailto:kuperh@edu.haifa.ac.il)

**Aims:** The course is designed to introduce MBA students to key concepts and procedures in descriptive and inferential statistics, and to develop their statistical reasoning skills. Students will acquire a set of data analysis tools useful in assisting managers in the process of evidence-based decision making. By the end of the course students will be able to:

- Use appropriate numerical and graphical descriptive statistics
- Reason about center and variability properties of distributions
- Understand and use the standard normal distribution and standardized scores
- Appreciate the main sources of uncertainty in statistical inference from a sample (estimates) to a population (parameters)
- Understand the logic of hypothesis testing and its applications
- Design and analyze basic linear statistical models
- Use statistical modeling to analyze relationships among variables (mean comparisons; analysis of variance; correlations; regression) via the linear model
- Use Microsoft Excel to perform statistical analyses

**Teaching and learning methods:**

A series of lectures, discussions, and assignments

**Weekly Schedule:**

**Week 1:** Introduction/review, basic concepts [Levine, Ch. 1]

**Week 2:** Descriptive versus inferential statistics [Levine, Ch. 2, 3]

**Week 3:** The logic of hypothesis testing [Levine, Ch. 7, 8, 9]

**Week 4:** Comparing two means – t-test [Levine, Ch. 10]

**Week 5:** Comparing means – ANOVA [Levine, Ch. 11]

**Week 6:** Correlations [Levine, Ch. 3]

**Week 7:** Simple linear regression [Levine, Ch. 13]

**Week 8:** Multiple regression [Levine, Ch. 14]

**Method of assessment:**

- Class attendance 10%
- Assignments 15%
- Final Exam 75%

**Recommended readings:**

**Levine, D.M. et al. *Statistics for Managers, Global Edition, 6e, 2010.***

Groebner D. F. et al, *Business Statistics - A Decision-Making Approach*, 7th Edition, Pearson International Edition, 2008.

Sinich T. *Business Statistics by Examples*, 5th Edition, Prentice Hall, 1996.

Canavos G. C. and Miller Don. *An Introduction to Modern Business Statistics*, Wadsworth 1993.

Mendenhall W , Reinmuth J. E. and Beaver R. J. *Statistic for Management and Economics*, 7th Edition, Wadsworth, 1993.