



University of Nicosia, Cyprus

<b>Course Code</b> MBA-530	<b>Course Title</b> Foundations in Statistics and Research	<b>ECTS Credits</b> None
<b>Department</b> School of Business	<b>Semester</b> Fall, Spring	<b>Prerequisites</b> None
<b>Type of Course</b> Foundation	<b>Field</b> Statistics	<b>Language of Instruction</b> English
<b>Level of Course</b> 2 <sup>nd</sup> Cycle	<b>Year of Study</b> 1st	<b>Lecturer(s)</b> Dr Haritini Tsangari
<b>Mode of Delivery</b> face-to-face	<b>Work Placement</b> N/A	<b>Co-requisites</b> None

**Objectives of the Course:**

The main objectives of the course are to:

- Introduce students to the basic principles of Statistics
- Provide the foundations to quantitative methods for business.
- Prepare students by giving them the necessary tools needed for the core course in quantitative methods, MBA 604, Decision Making methods and tools
- Make students appreciate the importance of statistical methods in business
- Make students able to interpret statistical output.

**Learning Outcomes:**

After completion of the course students are expected to be able to:

1. **use the basic concepts of graphical analysis** (students should be able to create and explain graphs and tables that are appropriate for different types of data).
2. **compute basic descriptive statistics** (students should be able to explain the concept of statistical measures and compute measures of central tendency and variation from data).
3. **utilize the basic concepts of probability theory** (students should compute classical and empirical probability).
4. **handle discrete probability distributions** (students should explain what a random variable is, calculate expected value and variance of a random variable and compute probabilities for various discrete distributions).
5. **use the normal random variable to compute probabilities** (students should use the standard normal variable and transform any normal variable into

standard in order to use for real-life problems).

**6. develop their ability to summarize and present data in a professional way** (students should be able to look beyond the numbers and interpret the numerical results according to the business problem they are dealing with).

**Course Contents:**

- 1. Data and Statistics:** data collection methods, questionnaire design, types of data.
- 2. Graphical Data Analysis:** creation and interpretation of graphs and tables according to the type of data in hand.
- 3. Descriptive Statistics:** Measures of Central Tendency and Variation.
- 4. Probability Theory:** Classical and Empirical Probability.
- 5. Discrete Probability Distributions:** random variables, distribution requirements, expected value, variance, some common discrete probability distributions.
- 6. Continuous Probability Distributions:** the normal random variable, transformation to a standard normal and computation of probabilities.

**Learning Activities and Teaching Methods:**

Lectures, Assignments, Handouts, In-Class Exercises and real-life examples.

**Assessment Methods:**

Homework/ Assignments, Final examination

**Required Textbooks/Reading:**

Authors	Title	Publisher	Year	ISBN
Newbold, P., Carlson, W.L. and Thorne, B.	Statistics for Business and Economics	Pearson Education	2010	0-13-507248-4

**Recommended Textbooks/Reading:**

Authors	Title	Publisher	Year	ISBN
Anderson, D. R., Sweeney, D. J. and Williams, T.A.	Statistics for Business and Economics	Thomson Learning	2002	0-324-06671-6
Keller, G and Warrack, B.	Statistics for Management and Economics	Thomson Publications	2003	0-534-49123-5