AMERICAN UNIVERSITY
OF CYPRUS

Course Code	Course Name	ECTS Credit
CMS204	Probabilities and Statistics	5

Pre-Requisite	Course Type	Language of Instruction
	Compulsory	English

Year of Study	Level of Course	Mode of Delivery
2nd / 3rd	BSc/1st Cycle	On Campus

Course Objectives:

This lesson provides a good knowledge of statistical data analysis applications using statistical methods.

Learning Outcomes:

- Graphical and Numerical Data Summing Methods
- **Elements of Probability Theory**
- **Probability distributions**
- Sampling distributions and Central limit theorem
- **Construction of space estimates for the average and proportional population**
- Statistical decisions using hypothesis testing, chi-square, t-tests.

Teaching Methodology:

Lectures 42 hours

Course Content

Graphical and Numerical data methods

Probabilities

Probability distributions.

Confidence Intervals

Sampling Distributions.

Chi-square, T-Tests, Hypothesis Test.

Assessment Methods:

Final Exam

Required Textbooks/Reading:

Title	Author(s)	Publisher	Year
Probability and Statistics for Engineer	Johnson R.A.	Pearson	2009
Probability and Statistics	De Groot, M.H. & Schervish, M.	Pearson	2011
Engineering Mathematics	Hargreaves	Pearson	2017