Course unit title:	Statistics I
Course unit code:	MAT 201
Type of course unit (compulsory, optional):	Compulsory
Level of course unit:	Bachelor (1st Cycle)
Year of study:	1
Semester when the course unit is delivered:	2
Number of ECTS credits allocated:	6
Name of lecturer(s):	Dr Neophytos Mikellides
Learning outcomes of the course unit:	• Solve problems on set theory, laws of probabilities, and conditional probability. • Identify the kind of distribution a specific random variable follows and explain the use of the probability distributions. • Identify relationships between variables and draw the appropriate inference based on various correlation coefficients. • Test hypotheses about various population parameters by identifying the type I and type II errors, the level of significance, the rejection region and the p-value. • Use and develop statistical models, in particular, simple linear regression models. Also, fit a model to a set of data. • Use the linear regression model for predicting the behaviour of a random variable. • Use sample statistics to estimate a population parameter.
Mode of delivery:	Face-to-face
Prerequisites and co-requisites:	None
Recommended optional programme components:	None
Course contents:	The purpose of this course is to build the foundation of theoretical statistics from the first principles of probability theory. The primary objective of this course is to introduce students to variability and uncertainty and how to cope with them when drawing inference from observed data. Students will have a practical experience with a spreadsheet analysis package.
Recommended or required reading:	**Required reading:** Levine, D. (2009). *Business statistics: A first course.* 5th edition. Pearson.
Planned learning activities and teaching methods:	Lectures, homework, laboratory exercises.
Assessment methods and criteria:	Class Participation: 5% Assignment: 10% Mid-Term Test: 15% Final Examination: 70%
Language of instruction:	English
Work placements:	No