Course Title	Applied Biostatistics
Course Code	BMS215
Course Type	Compulsory
Level	Bachelor (1st Cycle)
Year / Semester	2nd Year / 3rd Semester
Teacher's Name	TBA

ECTS	5	Lectures / week	3 Hours	Laboratories / week	None
Course Purpose and Objectives	Applied Biostatistics aims to provide an introduction to selected important topics in biostatistical concepts and reasoning. Students will understand the concept of sampling variation and its critical role in the construction of confidence intervals and hypothesis testing. The statistical methods will be applied to simple medical datasets using the statistical software SPSS and results will be interpreted.				
Learning Outcomes	Upon successful completion of this course students should be able to: • Demonstrate expertise regarding the basic concepts of biostatistics and their application to medical science. • Interpret the findings of the most frequently used statistical methods in medical science. • Critically review the statistical methods and results of clinical trials presented in published articles • Manage a personal computer independently and demonstrate that they can carry out the most common statistical methods and techniques.				

Prerequisites	None	Co-requisites	None
Course Content	• Basic concepts and types of data • Describing data with tables and charts • Describing data with numeric summary values • Probability and Normal distribution • Confidence interval for a population mean • Estimating the difference between two parameters • Testing hypotheses about the difference between two population parameters • Testing hypotheses about the ratio of two population parameters and the $x2$ test • Measuring the association between two numerical variables • Straight line models: linear regression		

	• Curvy models: logistic regression • Power and sample size in study designs
Teaching Methodology	Face- to- face
Bibliography	**Bowers David** (2008). *Medical Statistics from Scratch: An introduction for Health Professionals.* Second Edition, John Wiley & Sons, 2008 **ADDITIONAL RECOMMENDED TEXTBOOKS:** **Kirkwood Betty, Sterne Jonathan** (2003). *Essential Medical Statistics.* Second Edition, Blackwell Science **Petrie A, Sabin C** (2009). *Medical Statistics at a glance.* Third Edition, Wiley-Blackwell
Assessment	Mid – Term Examination 30% Final Examination 40% Assignments 20% Class Participation 10% 100%
Language	English