COURSE CONTENT

Department of Economics	**INFERENTIAL STATISTICS & INTRODUCTION TO REGRESSION ANALYSIS**
Instructor	Polymenis Athanasse, Assistant Professor
ECTS credits	8
Semester	Fall/Spring
Content	⏭ Estimation methods like the methods of moments, least squares, and maximum likelihood which are among the most popular tools for estimating population parameters will be presented. Different properties of estimators such as unbiasedness, efficiency and consistency will be discussed. There will also be quick presentations of the normal distribution as well as the chi-square, Student's t, and Fisher's F statistics. Sampling with small as well as large samples will be extensively studied by means of confidence intervals and hypothesis testing. Simple linear regression will then be introduced. The least squares method will be analytically studied. Parameters of the linear model will be estimated and confidence intervals as well as hypothesis testing techniques will be presented. The coefficients of determination and correlation will be introduced and goodness-of-fit issues will be discussed. A quick generalization of the results to multivariate regression will also be given.⏮