AFIN308 – Topics in Empirical Finance

Course Title	Topics in Empirical Finance				
Course Code	AFIN308				
Course Type	Elective				
Level	BA (Level 1)				
Year / Semester	4th year				
Teacher's Name	Dr. Nicos Koussis				
ECTS	6	Lectures / week	3	Laboratories/week	
Course Purpose	This is an advanced course in covering topics in empirical finance. The course introduces students to analyzing the predictability of asset returns using various statistical tests, introduces students to the use and statistical implementation of event studies and in estimating the CAPM and multifactor models. The course also covers an introduction to estimating parameters of option pricing models using historical data or implied volatilities.				
Learning Outcomes	1. Explain the underlying process describing financial data and the random walk 2. Compute and test the predictability of assets returns 3. Define the framework for event studies and their uses 4. Compute and statistically interpret results of the impact of various corporate events 4. Estimate the CAPM and multifactor models 5. Estimate the parameters of option pricing models				
Prerequisites	AFIN203	Corequisites	None		
Course Content	Predictability of asset returns: the random walk hypothesis, traditional non-parametric tests, autocorrelation tests, unit roots, variance ratios and recent empirical evidence Event studies: outline of an event study, types of events and examples, models for measuring normal performance, measuring and analyzing abnormal returns, cross sectional tests Estimating CAPM and evidence: statistical framework for estimation and testing, hypothesis testing , summary of empirical evidence relating to the validity of CAPM				

	Multifactor models: theoretical background review, portfolios as factors, macroeconomic factors, estimation of risk premia and expected returns, overview of empirical evidence
Teaching Methodology	The course is delivered to the students by means of lecturers, conducted with the help of computer presentations and the use of the board. The lecturer provides demonstrations and examples and R programming or other statistical software code. Students are then asked to expand on this knowledge by solving problems and applying their knowledge in a group project. Lecture notes and other course material like spreadsheets and R programs examples are available to students through the e-learning platform.
Bibliography	(a) Textbooks: J. Y. Campbell, A. W. Lo, and A. C. MacKinlay, The Econometrics of Financial Markets, Princeton University Press; 2nd ed. edition (1996) Oliver Linton, Financial Econometrics, Models and Methods, Cambridge University Press, 2019
Assessment	(a) Methods: Students will be assessed with course work that involves written and assignments (quizzes) and a small group project. The course involves both explaining concepts and numerical problems. (b) Criteria: Assessment criteria are available in each written assignment, midterm or in the final exam (c) Weights: • Assignments (including computer based) 20% • Group Project 20% • Final Exam 60%
Language	English language