



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Scienze Economiche, Aziendali e Statistiche		
ACADEMIC YEAR	2019/2020		
MASTER'S DEGREE (MSC)	ECONOMIC AND FINANCIAL SCIENCES		
SUBJECT	TOPICS IN MACRO AND FINANCIAL ECONOMETRICS		
TYPE OF EDUCATIONAL ACTIVITY	B		
AMBIT	50493-Economico		
CODE	18122		
SCIENTIFIC SECTOR(S)	SECS-P/05		
HEAD PROFESSOR(S)	CIPOLLINI ANDREA	Professore Ordinario	Univ. di PALERMO
OTHER PROFESSOR(S)			
CREDITS	6		
INDIVIDUAL STUDY (Hrs)	111		
COURSE ACTIVITY (Hrs)	39		
PROPAEDEUTICAL SUBJECTS			
MUTUALIZATION			
YEAR	2		
TERM (SEMESTER)	1° semester		
ATTENDANCE	Not mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	CIPOLLINI ANDREA Tuesday 15:00 17:00 ufficio del docente, quinto piano Edificio 13, stanza 8		

DOCENTE: Prof. ANDREA CIPOLLINI

PREREQUISITES	Introduction to basic statistical concepts such as cumulative probability distributions, density functions, first and second moments, introduction to regression analysis
LEARNING OUTCOMES	<p>1. Knowledge and understanding. Forecasting through regression analysis. Estimation, identification and hypothesis testing of structural form models studying the dynamics of macroeconomic and of financial time series.</p> <p>2. Applying knowledge and understanding. Capability of assessing empirically the validity of macro and financial theoretical model to be used to make policy and financial investment decisions</p> <p>3. Making judgements. Capability of interpreting estimation results and capability of assessing model forecasting performance</p> <p>4. Communication skills. Outline and report the results using figures and highlight the main modelling assumptions</p> <p>5. Learning skills. Conduct research and analysis in the field of macro and financial econometrics</p>
ASSESSMENT METHODS	<p>Written test (which has a weight of 80%) and oral test (which has a weight (of 20%).</p> <p>The written test aims at detecting the knowledge and skills possessed by the student. The test, with a maximum total duration of 3 hours, involves 3 questions (articulated in the most 4 subtopics each, of different difficulty) of a practical and / or theoretical nature. The text of each question is well-defined and solely interpretable, allowing the student to formulate the answer autonomously and is structured to allow comparison with that provided by other students.</p> <p>The oral exam aims to deepen the written work and to better evaluate the student's learning through an additional question.</p> <p>The threshold for a pass (equal to a score of 18 on a scale of 18-30) is, overall, obtained on the basis of a weighted average of the written and oral tests (with the weights indicated above). This threshold is reached if the student shows an adequate use of the terms relating to the basic concepts of the course.</p>
EDUCATIONAL OBJECTIVES	<p>At the end of the course the student will be able:</p> <p>1) to make in sample and out of sample forecast of macro and financial time series through linear regression analysis; distinguish between point and density forecasts</p> <p>2) to compute (through regression) the probability of an extreme event , such as financial crisis</p> <p>3) to identify (and evaluate the impact) of structural form shocks, such as demand and supply, and shocks to policy variables, on the macro and financial variables taking into account their interlinkages</p>
TEACHING METHODS	Lectures, Lab exercises based on Excel software
SUGGESTED BIBLIOGRAPHY	<p>W.Greene: Econometric Analysis 5th edition, Prentice Hall. Carlo A. Favero, Applied Macroeconometrics, Oxford University Press, 2001 K. Cuthbertson and D. Nitzsche, 2004, Quantitative Financial Economics: Stocks, Bonds and Foreign Exchange, 2nd Edition</p> <p>Lectures notes</p>

SYLLABUS

Hrs	Frontal teaching
2	Dynamic Linear Regression Models and Forecasting Part 1 (in sample and out of sample forecasting using OLS)
4	Dynamic Linear Regression Models and Forecasting Part 2 (indirect and direct method of forecasting using OLS; forecast evaluation)
2	Maximum Likelihood univariate analysis (linear regression model)
4	Maximum Likelihood univariate analysis (probit model; example of in sample and out-of-sample forecasting through probit; forecast evaluation)
4	Maximum Likelihood multivariate analysis (static equations)
2	Maximum Likelihood multivariate analysis (dynamic equations: reduced form VAR models)
8	Maximum Likelihood multivariate analysis (dynamic equations: structural form VAR models)
4	Forecasting under adverse scenarios: Introduction to Value at Risk
Hrs	Practice
2	Excel Applications Dynamic Models and Forecasting Part 1
2	Excel application to univariate Maximum Likelihood (linear regression model)
3	Excel application to univariate Maximum Likelihood (probit model)
4	Excel analysis: estimation through ML of reduced and structural form VAR

Hrs	Practice
1	Excel application for scenario analysis