Syllabus

1. Programme information

1.1. Institution	THE BUCHAREST UNIVERSITY OF ECONOMIC STUDIES
1.2. Faculty	
1.3. Departments	Department of Money and Banking
1.4. Field of study	
1.5. Cycle of studies	PhD Studies
1.6. Education type	Full-time
1.7. Study programme	Finance
1.8. Language of study	Romanian
1.9. Academic year	2023-2024

2. Information on the discipline

2.1. Name	**Advanced models for analyzing financial and monetary phenomena**							
2.2. Code	**23.0180IF1.1-0004**							
2.3. Year of study	**1**	2.4. Semester	**1**	2.5. Type of assessment	**Test**	2.6. Status of the discipline	**O**	2.7. Number of ECTS credits	**7**
2.8. Leaders	C(C)	**prof.univ.dr. ALTAR Moisa**						
	C(C)	**prof.univ.dr. NECULA Ciprian**						

3. Estimated Total Time

3.1. Number of weeks	14.00		
3.2. Number of hours per week	2.00	of which	
		C(C)	2.00
3.3. Total hours from curriculum	28.00	of which	
		C(C)	28.00
3.4. Total hours of study per semester (ECTS*25)	175.00		
3.5. Total hours of individual study	147.00		
Distribution of time for individual study			
Study by the textbook, lecture notes, bibliography and student's own notes	112.00		
Additional documentation in the library, on specialized online platforms and in the field			
Preparation of seminars, labs, assignments, portfolios and essays	33.00		
Tutorials			
Examinations	2.00		
Other activities			

4. Prerequisites

4.1. of curriculum	

4.2. of competences	

5. Conditions

for the C(C)	Lectures are held in rooms with internet access and multimedia teaching equipment.

6. Acquired specific competences

PREFESSIONAL	C1	
PREFESSIONAL	C4	

7. Objectives of the discipline

7.1. General objective	Development of skills for applying state-of-the-art modelling techniques for the analysis of financial and monetary phenomena
7.2. Specific objectives	- Using instruments specific to intertemporal decision making in a stochastic environment - Using asset pricing models in discrete-time and in continuous-time - Understanding the role of uncertainty in economic modelling

8. Contents

8.1. C(C)		Teaching/Work methods	Recommendations for students
1	Dynamic asset pricing models - modeling the inter-temporal consumption decision in a stochastic environment; formulation in continuous time; - the equilibrium model with complete markets: the stochastic discount factor, the representative agent; - extensions: models with habit, models with learning, models with heterogeneous agents;	discourse, debate, applications 7 lectures	
2	Uncertainty within economic models - the role of uncertainty and ambiguity in economic and financial decision models. Application to monetary policy models - risk, uncertainty and ambiguity - robust control and uncertainty of a model - reducing the uncertainty of financial decision model parameters based on mini-max techniques - robust solutions for neo-Keynesian monetary models	discourse, debate, applications 7 lectures	

Bibliography

- Recent scientific papers

- Cochrane, J., Asset Pricing, Princeton University Press, 2005

- Merton, R., Continuous-Time Finance, Wiley-Blackwell, 1992

- Ljungqvist, L., T. Sargent, Recursive Macroeconomic Theory, MIT Press, 2004