Practical Course on Financial Modelling in R

Unit Title	Practical Course on Financial Modelling in R		
Level of Study	MS		
Credit Value		**ECTS Value**	
Home Department	Mathematical methods in economics		
Home Faculty	Economics		
Unit Co-ordinator			
Key Words	Trading strategies, Performance, Overfiting, Parameter estimation, Backtesting, R		
Brief Summary	This is a practical unit that enables students to synthesise theoretical knowledge on asset pricing and financial modeling with practical work on financial data using R.		
Indicative Content	Basic methods working with R language Data management in R Financial data sources in R Creation factor models in R Creation trend-following and mean-reversion strategies Portfolio construction and optimisation in R Machine learning in quantitative finance: keras, caret packages Reinforcement learning in algorithmic trading Performance calculation of trading strategies Overfitting detection in R Risk management, Execution, Pre-Trade and Post-Trade Analysis		