CALL FOR APPLICATIONS FOR PhD PROGRAMMES
(CYCLE XL – Academic Years 2024/2027)
Positions with scholarship funded by the University and positions without scholarship

PhD PROGRAMME in QUANTITATIVE METHODS IN ECONOMICS
PhD Coordinator: Prof. Claudio Socci

Positions available with scholarship	**3**
Positions available with scholarship reserved for applicant owner of non-Italian degree eligible for PhD admission	**1**
Positions available without scholarship	**1**

PRELIMINARY ASSESSMENT CRITERIA	1. Assessment of a degree suitable for access to the program
	2. Assessment of curriculum
	3. Aspects of project, its congruence with the program topics and its innovative potential
	4. Language qualification: English – B2 level or higher
Curriculum / Research topics	**Scientific Discipline Area**
QME1 / *Input-Output analysis*	SECS-P/01 - ECONOMICS SECS-P/02 - ECONOMIC POLICY SECS-P/06 - APPLIED ECONOMICS
QME1 / *Multi-sectoral models and computable general equilibrium models*	
QME1 / *Computational methods for macro and microeconomics*	
QME2 / *Calculus, linear algebra and dynamic analysis*	SECS-P/02 - ECONOMIC POLICY SECS-P/05 - ECONOMETRICS SECS-P/06 - APPLIED ECONOMICS SECS-S/01 – STATISTICS SECS-S/03 – ECONOMIC STATISTICS SECS-S/06 - MATHEMATICAL METHODS OF ECONOMICS AND OF ACTUARIAL AND FINANCIAL SCIENCES
QME2 / *Statistics and data analysis*	
QME2 / *Economic analysis and policy*	
QME3 / *Machine learning*	SECS-P/01 - ECONOMICS SECS-P/02 - ECONOMIC POLICY SECS-P/08 – ECONOMICS AND BUSINESS MANAGEMENT SECS-S/01 - STATISTICS SECS-S/04 - DEMOGRAPHY SECS-S/05 - SOCIAL STATISTICS SECS-S/06 - MATHEMATICAL METHODS OF ECONOMICS AND OF ACTUARIAL AND FINANCIAL SCIENCES
QME3 / *Social Network Analysis*	
QME3 / *Data mining*	

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Subjects on which the INTERVIEW hinges and possible bibliography	Critical presentation and discussion of research project; assessment of knowledge related to the research topic indicated; foreign language proficiency. During the discussion **basic knowledge of economics, economic policy and quantitative methods in economics** will be tested; based on the scientific project presented, specific knowledge of varied curricula may be tested. Reference bibliography: Miller, R.E. and Blair, P.B. (2009), *Input-Output Analysis: Foundations and Extensions*, 2nd edition, Cambridge University Press. Chiang, A. C. (1999), *Elements of Dynamic Optimization*, Long Grove, IL: Waveland Press. Easley D. and Kleinberg J. (2010), *Networks, Crowds, and Markets. Reasoning about a Highly Connected World*, Cambridge University Press.
INTERVIEW ASSESSMENT CRITERIA	1. Originality and logical development of the project in relation to the chosen research topic
	2. Assessment of training and work profile even outside the university
	3. Experience of national and international mobilities congruent with the candidate's curriculum and the submitted project.
	4. Assessment of candidate's motivation.
Specific requirements for the competitive exam	Basic knowledge of economics and economic policy. The QME Ph.D., well aware of the notable gender gap present in the STEM, in the technical disciplines and in data science, turns its full attention so that the process of selecting candidates shall guarantee gender equality and take place in the absence of any form of discrimination based on social class, gender, sexual orientation, religion or ethnicity.
Obligations for enrollees	Lessons attendance of your own curriculum, **and** of QME programme's other curricula **and** lessons attendance of the PhD School (for the number of credits established by the guidelines). Enrollees in the second or third year must spend a minimun **six-month** period abroad at Universities or Research Centers.