

Allegato **B2**

**Quadro degli obiettivi formativi specifici e delle propedeuticità**

Corso di Laurea magistrale in ECONOMICS/SCIENZE ECONOMICHE

Rau, art. 12, comma 2, lettera b

| N. | Insegnamento                | Settore SSD | Obiettivi formativi specifici   | Propedeuticità obbligatorie* |
|----|-----------------------------|-------------|---|------------------------------|
| 1  | <b>Advanced Mathematics</b> | SECS-S/06   | Aim of the course is to provide students with the advanced quantitative knowledge to study economics in a formal way. More specifically the course covers topics such as (but is not limited to) functions of more variables, differential calculus, optimization problems with and without constraints. All of the above instruments are widely used in economic analysis.   |                              |
| 2  | <b>Public Economics</b>     | SECS-P/03   | <p>The course is rooted in a theoretical and applied framework aimed at understanding the economic justification of the role of the state in the market economy, already outlined in previous courses. The course of Public economics starts with a first part dedicated to the economic theory of taxation and public finance, providing a micro- and a macro-economic framework for discussing the impact of alternative taxes and instruments of public finance on the economy.</p> <p>The second part of the course analyzes the main sectors on which the state plays a role as a regulator, a direct producer or a financier. More in particular, the course analyzes the welfare state and its main components (health, social security, education, pensions, housing), network utilities (electricity, natural gas, water and solid waste)</p> <p>Both parts are developed integrating mainstream economics with institutional economics and adopt a comparative approach focused on OECD member states</p> |                              |
| 3  | <b>Labour Market Law</b>    | IUS/07      | The course has the following learning aims: integration of the basic knowledge of the legal framework of labour law contract (employment or autonomous) and the right of coalition. More specifically, we want to provide expertise and qualified on issues related to the protection of the worker in the job and/or in the labor market (public and private services), to the European social dialogue, on the free movement of workers within the Community and access to employment of no EU citizens.  |                              |
| 4  | <b>Employment law</b>       | IUS/07      | The course aims to provide the skills necessary for an adequate legal knowledge of the workplace in   |                              |

|   |   |           |   |  |
|---|---|-----------|---|--|
|   |   |           | the private and public sectors, with particular regard to the regulation of conditions of employment and self-employment and workforce management. With regard to the professions, is intended to provide specialized knowledge of the diverse range of employment contracts, subject and subordinate can be used by employers, as well as the complex discipline of occupational safety.   |  |
| 5 | <b>Financial intermediaries and financial markets</b> | SECS-P/11 | <p>The aim of the course is to provide the foundations of the financial system, its main functions and its relations with the real economy. The course is divided into two modules.</p> <p>The first module sets down the conceptual framework, evidencing the linkages between financial economy and real economy. Here, the basic features of financial markets and institutions will be presented, alongside and analysis of the channels efficiently linking savings and investments.</p> <p>The second module is aimed to provide the basic knowledge about the institutional framework of central banking and monetary policy. The module analyses the process through which base money is created and the relations between money and the supply of credit. Here, the aim is to provide knowledge on the role of the financial system (and, in particular, the banking system) in the transmission mechanism of monetary policy.</p> |  |
| 6 | <b>Advanced microeconomics</b>                        | SECS-P/01 | <p>Economic models must carefully identify decision makers, goals, choices and relationship between choices and outcomes. Aim of the course is to make students accustomed to this way of modeling the behavior of economic agents and their optimization problem.</p> <p>In particular the course will cover consumer theory and utility maximization, theory of the firm in perfectly competitive markets, monopoly, oligopoly theory. The course provides students with basic knowledge of and game theory and information economics.</p>  |  |
| 7 | <b>Development economics</b>                          | SECS-P/06 | The course will introduce students to applied growth theory: capital accumulation, productivity and efficiency, fundamentals(state, culture, inequality, natural capital) with a special emphasis on development problems and policies.   |  |
| 8 | <b>Advanced Macroeconomics</b>                        | SECS-P/01 | The course provides an in-depth presentation of the fundamental macroeconomic models, and it is divided into two main parts. During the first part of the course we focus on growth theory and we discuss the main macroeconomics models for the long-run: Solow, human capital, overlapping generations, endogenous growth models. The second part of the course is devoted to the macroeconomics for the short-run, with a particular emphasis on the economic crisis of 2008. After presenting the building blocks of the AD-AS short-   |  |

|    |  |           |   |  |
|----|--|-----------|---|--|
|    |  |           | run model, we focus on more specific arguments: stabilization policies, unemployment, monetary policy during an economic crisis.  |  |
| 9  | <b>Advanced Econometrics</b>             | SECS-P/05 | The course is aimed to the description of advanced microeconometrics tools, usefull to analyse complex data structures and contexts. Particularly lessons are firstly devoted to hierarchical data structures and their analysis throught Linear Mixed Models (LMM) or multilevel models. Then models with not normal response are deepened within the unified approach of Generalized Linear Models (GLM). In the last part of the corse these extensions towards mixed effects (LMM) and towards not normal responses are merged within the contexts of Generalized Linear Mixed Models (GLMM).   |  |
| 10 | <b>History of economic thought</b>       | SECS-P/12 | To Know the origin, the peculiarities and the historical-critical evolution of the main modern and contemporary economic theories, also in relation with the scientific,cultural, socio-economic and institutional context in which they were formulated; to understand the complexity of existing relations between doctrines, systems and policies.   |  |
| 11 | <b>Time series analysis</b>              | SECS-S/03 | The course provides the students with further study in the analysis of fixed-time-interval, discretely sampled data. Typical features of the series (in particular, financial series) are studied starting with a review of ARIMA modeling (also in its seasonal version). Non-linear autoregressive models are introduced (threshold models TAR, SETAR, LSTAR, autoregressive neural nets) and the use of higher moment models is discussed. ARCH-GARCH models for non-constant variance are ocnsidered also in combined models (ARIMA-GARCH and SETAR-GARCH). Algorithms in R software will be used for computer exercises and project analysis.                                    |  |
| 12 | <b>Multivariate statistical analysis</b> | SECS-S/01 | Multivariate statistical methods have become more and more popular among all kinds of scientists, and particularly among economists. The aim of the course is to provide the student knowledge of commonly used multivariate statistical analysis methods . The core of the course consists of two major parts:<br>1. Data reduction based on the analysis of covariance structures: Principal Components Analysis and simple Correspondence Analysis;<br>2. Data reduction based on classification methods or the analysis of grouping structures: Cluster Analysis.<br>The emphasis is in both theory and interpretation of the results, with graphical analysis and utilization of |  |

|    |   |           |  |  |
|----|---|-----------|--|--|
|    |   |           | modern statistical software packages.  |  |
| 13 | <b>Environmental and resource economics</b> | AGR/01    | The course provides the students with comprehensive knowledge about theoretical approaches and methodological tools from a political economics point of view in a perspective of sustainable development. The evolution of environmental and ecological economics related to pollution problems, environmental services and natural resources management will be illustrated.  |  |
| 14 | <b>Industrial Organization</b>              | SECS-P/05 | Aim of the course: This course examines the determinants and effects of industry structure. It introduces both theoretical concepts and empirical applications. On completion of this course, students are expected to be familiar with the basic market structure models of monopoly, oligopoly; use game theory to analyze strategies and outcomes of single-period and multi-period games; understand the rationale of government regulations and policies, firms responses to them, and the consequences; and understand the rationale of firms strategic behaviors: pricing, advertising, and Research and Development as well as patenting behavior. Methodology: Throughout the course, students will use microeconomics to understand firms' strategic decisions and to evaluate public policies for competition. They will solve problems designed to capture some of the major concepts in the course; some of these problems require calculus as well as other mathematical skills. |  |
| 15 | <b>Political economy</b>                    | SECS-P/01 | Aim of the course: This course provides an introduction to modern general equilibrium theory. Students should have acquired the basic concepts of microeconomics provided by the course of Advanced Microeconomics and the knowledge of the mathematical tools provided by the course of Advance Mathematics.  |  |

**\* va indicato il numero di riferimento dell'/degli insegnamento/i propedeutico/i a quello descritto.**

**Nota**

Gli obiettivi formativi specifici dei corsi di insegnamento devono essere descritti mediante un testo compreso tra le 5 e le 10 righe, per un totale di battute comprese tra le 500 e le 1000.